

**A National Study in Ireland to Measure Undergraduate Nursing  
Students' General Cultural Awareness and Specific Knowledge of  
Death Rituals Practised by Three World Religions (Christianity,  
Islam, and Hinduism)**

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### **Declaration**

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Philosophy is entirely my own work, and that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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It is my greatest hope this thesis can shed some light on the critical issues in undergraduate nursing education related to general cultural awareness and specific knowledge of death rituals practised by three world religions in the Republic of Ireland (Christianity, Islam and Hinduism). If my research becomes a stepping stone on a path to greater service and support for health care providers and their patients, I will be humbled.

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### **List of Abbreviations**

CAS	Cultural Awareness Scale
CPC	Clinical Placement Coordinator
HEI	Higher Education Institutions
HSE	Health Service Executive
KQ	Knowledge Questionnaire
mCAS	Modified Cultural awareness scale
NMBI	Nursing and Midwifery Board of Ireland
RCN	Registered Children's Nurse
RCT	Randomised Control Trial
RGN	Registered General Nurse
RM	Registered Midwife
RNID	Registered Intellectual Disability Nurse
RPN	Registered Psychiatric Nurse
WHO	World Health Organisation



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## **Abstract**

### **A National Study in Ireland to Measure Undergraduate Nursing Students' General Cultural Awareness and Specific Knowledge of Death Rituals Practised by Three World Religions (Christianity, Islam, and Hinduism)**

by Nipuna Thamanam

Ireland was predominantly monotheistic with Catholicism as the main religion. In recent decades, the country had become more multicultural. With increasing immigrant populations, undergraduate nursing students and nurses seeking to provide culturally competent care lacked specific knowledge regarding the death rituals of other religions. According to the literature, cultural encounters were key to furthering cultural awareness, knowledge, skills, and a desire to be effective, e.g., cultural competency. This study aimed to measure undergraduate nursing student general cultural awareness and specific knowledge of the death rituals practiced in the Republic of Ireland by three world religions: Christianity, Islam, and Hinduism. Two quantitative survey instruments were used along with questions related to demographics, education, and experience. A Cultural Awareness Scale (CAS), developed by Rew et al. (2014), was modified (mCAS), and a new knowledge questionnaire (KQ) was developed to measure nursing student knowledge of religious death rituals. Eleven religious experts assisted in drafting questions for the KQ. Six subject experts reviewed the KQ in-depth, and 68 students participated in a pilot test. Then, a quantitative descriptive cross-sectional study was undertaken with 414 undergraduate nursing students (of 5,050) from all five nursing programmes at eight (of 13) higher educational institutions across Ireland, representing all four provinces. Descriptive analyses and inferential tests were conducted. Undergraduate nursing students self-reported moderately high levels of general cultural awareness in each of the four mCAS subscales (general experience, general awareness/attitude, nursing classes and clinical instruction, and clinical practice). However, the KQ results indicated very low levels of knowledge related to religious death rituals. Over 200 students said they did not know the answers to 16 of 22 multiple-choice questions (Table 39), and 49% only answered five questions correctly (Table 40). Recommendations included cultural education during undergraduate nursing programmes mandated by the Nursing and Midwifery Board of Ireland.

## **Key Definitions**

### **Culture**

Berry et al. (1992) described culture as a group of people's shared way of life. Culture included ideas, techniques, and habits passed on from one generation to another, i.e., a social heritage. According to Nanda and Warms (2014), culture was learnt and shared; was symbolic, adapted, and integrated; and culture was performed. Enculturation was a process by which culture was learnt (Kottak, 2015). A preliminary definition of culture stated culture was "that complex whole which includes knowledge, abilities, notions and forms of behaviour persons have acquired as members of the society" (Tylor, 1871, as cited in Eriksen, 2001, p. 3). Clyde and Kroeber (1952) proposed that culture was not merely a set of behaviours, but the product of psychological, social, biological, and material factors.

### **Cultural Awareness, Cultural Knowledge**

According to Campinha-Bacote (2002), cultural awareness was described as the in-depth evaluation of one's own cultural and professional background. It was recognition of one's biases, prejudices, and assumptions about individuals who are different. Cultural knowledge focused on cognition and information. Cultural knowledge focused on cognition and information, and cultural encounters were interactions with patients from culturally diverse backgrounds.

### **Cultural Encounters**

A cultural encounter was described as a practise that enabled healthcare providers to interact directly with people from varied cultural backgrounds and learn from those experiences (Campinha-Bacote, 2007). Several studies indicated that encounters with different cultures could enhance nursing student cultural awareness and competence (Bohman & Borglin, 2014; Booth and Graves, 2018; Hultsjö et al., 2019; Lin et al., 2015; Smith-Miller et al., 2010). Students who engaged in cross-cultural experiences demonstrated increased awareness of global cultural differences, decreased stereotyping, inter-professional relationships, compassion care (Booth & Graves, 2018). A review of the literature by Campinha-Bacote (2011) revealed that the pivotal and key construct in the process of becoming culturally competent was experience with cultural encounters. The goals of cultural encounters were to continuously interact with patients from culturally diverse backgrounds in order to validate, refine, or modify knowledge of values, beliefs, and practices with regard to a cultural group, and to develop cultural desire (to learn), cultural awareness, cultural skill, and cultural knowledge (Campinha-Bacote, 2011), the constructs of cultural competence.

### **Cultural Competence**

A growing body of literature recognised the importance of culturally competent care when encountering diversity in a health care setting (Campinha-Bacote, 2002; National Social Inclusion Office, 2012, 2019; Osmancevic et al., 2020; Papadopoulos et al., 2004; Rabie et al., 2020). The term cultural competence was first coined by Leininger in the 1960s as part of her philosophy of cultural care (Leininger, 1991). The term was used extensively in nursing literature to refer to a multi-cultural knowledge base that nurses needed to have together with the ability to apply such knowledge in practice (Campinha-Bacote, 2002; Leininger, 2001). The nurses' ability to provide culturally competent care to minority-ethnic patients was usually related to cultural competence and knowledge of how to communicate with culturally diverse patients (Boi, 2000; Cortis, 2000; Gerrish, 2000). According to Creech et al. (2017), knowledge, attitudes and skills were required for competent care.

The theoretical framework that guided this study was the model: The Process of Cultural Competence in the Delivery of Health Care Services (Campinha-Bacote, 2011). This model viewed cultural competence from the perspective that cultural competence was learnt, shared, and was symbolic, integrated, adapted, and performed. According to Campinha-Bacote (2007), cultural competence involved the integration of five constructs: cultural awareness, knowledge, skill, encounters, and a desire to be effective (p. 15). Cultural competence was defined as "the process in which the health care provider continuously strives to achieve the ability to work effectively within the cultural context of a client, individual, family or community" (p. 15).

## **Religion**

According to the World Population Review (WPR), Religion by Country (WPR, 2023b), 85% of the people in the world identified with a religion. Schilderman and Beyers (2015) suggested that one way of viewing religion was as a cultural phenomenon. Religions had unique beliefs about life after death, as well as behavioural rules that regulated life in a social society (Brown, 2014; Koenig, 2009). Religion was often organized and practiced in a group environment, but it could also be practiced by individuals. Religion was also defined as a long-standing custom originating from a group of individuals who shared similar ideas and practices (Koenig, 2009). Religion was defined as "Organised faith systems, traditional beliefs, practices, and structures" (Walsh, 2010. p. 331).

In nursing, the term religion was used in a broad and multidimensional way (Bakibinga et al., 2014). It meant the "beliefs, practices, and rituals associated to the sacred" (Koenig, 2009, p. 284). The term sacred referred to the numinous (the mystical, the supernatural) or God, as well as the ultimate truth or reality (Koenig, 2009). There were many variants of practice within a single religion as well as the impact of the culture on ethnic groups or country of origin or residence. For the purpose of the current study, religion was considered as an expression of spirituality.

## **Spirituality**

According to the World Population Review (WPR), Religion by Country (WPR, 2023b), unaffiliated and atheist persons were the third largest group of people in the world in 2020 after Christians and Muslims. Ireland and Northern Ireland had small unaffiliated populations, 4-7% and 14% respectively, depending upon the source (WPR, 2023a, 2023b). Quinn and Connolly (2023) referenced a definition of spirituality provided by the Spirituality Reference Group of the European Association of Palliative Care, which stated:

Spirituality is the dimension of human life that relates to the way people/community experience, express, and/or seek meaning, purpose and transcendence, and the way they connect to the moment, to self, to others, to nature, to the significant and/or the sacred. (Quinn & Connolly, 2023, p. 1).

Yet, Quinn and Connolly (2023) emphasized how difficult it remained to define the breadth, depth, and uniqueness of spirituality. Spirituality was viewed as more personal, with less rules, regulations, and obligations than religion (Koenig, 2009). There were people who identified as spiritual-but-not-religious; and others rejected religion and defined spirituality solely in individualistic, secular terms.



## Chapter 1: Introduction

*"How people die remains in the memory of those who live on."*

Dame Cicely Saunders (1989, p. 624)

This introductory chapter provided an overview of the current study organised into the following sections: (1.1) the motivation and personal story of the researcher; (1.2) introduction; (1.3) the statement of the problem; (1.4) a statement of purpose; (1.5) the aim of the current study; (1.6) study objectives; (1.7) an overview of subsequent chapters, and (1.8) a summary.

### 1.1 Motivation and Personal Story of the Researcher

"Sandwiches, biscuits, tea, family, and relatives—what is going on here?", I thought as I slowly walked out of one of the rooms in the hospital. A few minutes earlier, my patient, Mr. James (a pseudonym), gasped for breath, looked at his wife and gently closed his eyes as if saying goodbye. Death is an inevitable end to human life. Yet, perceiving it as a natural process is often difficult for families and healthcare workers who hope for a continuation of life.

The grief-stricken family stood still around the bed as the doctor verified that Mr. James had died. My colleague and I led the family to the relatives' room and went back to the patients' bedside. My colleague opened the window in Mr. James' room, we washed and positioned Mr. James, removed medical equipment, and dressed his body. Before we left the room, my colleague lit some candles and put rosary beads and Bible beside the bed, as per the custom of Irish Catholics. As I walked past the relatives' room, I saw the family having a cup of tea and sandwiches.

What I had just witnessed and what I saw as I walked past the relatives' room, was not what I was used to seeing. As a new immigrant nurse from India, I thought "How can the family eat and drink when their dad and husband had just died? Why are they not crying?" In my culture, eating at the time of death was not practised. With great curiosity, I asked my colleague the questions that were on my mind. She smiled and said, "They are celebrating the life of Mr. James". As I read more about Catholic death rituals, I found that this custom was a part of the Irish culture, to honour and celebrate the life of the deceased. This experience motivated the current study.

## 1.2 Introduction

The current study sought to investigate the importance of understanding another person's religious and cultural preferences and incorporating them into nursing care. Clinton (1996) defined culture as that which helped individuals adapt to their environments. Culture was a group of peoples' shared way of life (Berry et al. 1992). Culture included ideas, techniques, and habits passed on from one generation to another, i.e., a social heritage. As nurses and health care professionals, it seemed crucial to be aware of the importance of respect for culture: the values, customs, traditions, and beliefs of people in our care. For cultural education to be embedded, nurse educators must ensure cultural awareness and knowledge are learnt during undergraduate nursing programmes. In this thesis, I set out to explore what undergraduate nursing students practicing in Ireland knew about other cultures in general, and specifically in relation to religious death rituals of three world religions.

According to the World Population Review (WPR), Religion by Country (WPR, 2023b), Christianity was the most common religion in the world in 2020, with an estimated 33% of people identifying with it, followed by Islam with over 24%. Non-religious and atheist persons were the third largest group, which was not appropriate as a third religion for the current study due to its' complex nature. The fourth largest group in the world was Hindu. Ireland was majority Roman Catholic (84%) with a 4-7% non-religious population (14% in Northern Ireland) depending upon the source, a growing Muslim population, and other religions claimed to a lesser degree (WPR, 2023a, 2023b). Hinduism was chosen from among the other minority religions because of the researcher's interest and because it was the third largest organized religion in the world. Thus, the three religions with the largest followings in the world seemed appropriate for the current study: Christianity, Islam, and Hinduism.

The theoretical framework of the current study was embedded in the ongoing process of gaining cultural competence as applied to health care delivery (Campinha-Bacote, 2002, 2007, 2011). Cultural awareness, knowledge, cultural skills, desire (to be effective), and cultural encounters were the five distinct constructs of cultural competence (Campinha-Bacote, 2002, 2011; Harris et al., 2013). According to Campinha-Bacote (2002), cultural awareness

was described as the in-depth evaluation of one's own cultural and professional background. It was recognition of one's biases, prejudices, and assumptions about individuals who were different. Cultural knowledge focused on cognition and information, and cultural encounters were interactions with patients from culturally diverse backgrounds.

The current study focused on cultural awareness and knowledge, and cultural encounters were explored in the context of whether students had such experiences and their relationship to levels of cultural awareness and knowledge. (The current study did not investigate or evaluate cultural skills or cultural desire [to learn and be effective].) The current study was intended to be a national research study, with all four provinces in the Republic of Ireland represented. As a proactive individual, I was eager to undertake the current study in order to measure undergraduate nursing students' general cultural awareness and specific knowledge of death rituals practised by three world religions (Christianity, Islam, and Hinduism) in the Republic of Ireland.

### **1.3 Problem Statement**

It seemed common knowledge that increasing cultural diversity around the world, including the European countries and Ireland, emphasized the need to undertake the current study. The population of Ireland had been changing since 2002: Once a fairly monotheistic country where the majority were white and Irish Catholic, with a small scattering of white Irish Protestants, Ireland more recently developed into a multi-cultural society, bringing distinct cultural and religious viewpoints to bear (Markey et al., 2012; Tuohy et al., 2008). According to Markey et al. (2012), the increase in the cultural and ethnic diversity of the Irish population brought with it both benefits and challenges. In particular, the health care sector faced challenges, both for the workers and for the people seeking to avail themselves of healthcare services, according to both Markey et al. (2012) and a March 2002 paper authored by the National Consultative Committee on Racism and Interculturalism (NCCRI) and the Irish Health Services Management Institute (IHSMI). The paper was posted on Lenus, The Irish Health Repository (2023), titled Cultural Diversity in the Irish Health Care Sector: Towards the

Development of Policy and Practice Guidelines for Organizations in the Health Sector (Lenus, The Irish Health Repository, 2002).

In April 2016, Ireland's 4,761,865 million population hailed from over 156 nations (Central Statistics Office [CSO], 2016). According to the most recent Population and Migration Estimates from the CSO of Ireland (CSO, 2022), there were 5.12 million people in Ireland including 703,700 non-Irish nationals representing 13.8% of the total population through April 2022. Internationally, nurses and nursing students were facing challenges meeting the multicultural needs of diverse populations, too (Hart & Mareno, 2014; Markey et al., 2017).

It was clear from the literature that Ireland's health services and professionals were inadequately equipped to respond to the increasingly diverse patient population in Ireland. The health care provided to ethnic minority groups was not meeting their needs (Cáirde, 2004). The nurses' inability to provide culturally competent care to minority-ethnic patients was usually related to the lack of cultural competence and knowledge: how to communicate with culturally diverse patients (Boi, 2000; Cortis, 2000; Gerrish, 2000), experience, and cultural differences (Lyons et al., 2008). Červený et al. (2019) referenced challenges related to language, religion, and lack of cultural knowledge. Feelings of uncertainty with regard to appropriate actions was further influenced by a lack of knowledge, and the ethnocentric beliefs and culture of the organisation (Markey et al., 2017).

Nurses also dealt with cultural issues in practice, had difficulty accessing and using the interpreter services, and had difficulty planning and taking action to improve nursing care for patients from a different culture (Tuohy et al., 2008). These challenges demanded that the healthcare sector and health care professionals, especially nurses who spent more time in direct patient contact care, met this diversity with cultural competence (Flowers, 2004; Heeseung et al., 2015). Nurses and nursing students needed adequate training to meet these challenges in the health care setting.

**Measuring Cultural Competence.** A growing body of literature recognised the importance of culturally competent care when encountering diversity in a health care setting (Campinha-Bacote, 2002; National Social Inclusion Office, 2012, 2019; Osmancevic et al.,

2020; Papadopoulos et al., 2004; Rabie et al., 2020). Cultural competence was defined as "an ongoing process in which the health care provider continuously strives to achieve the ability to work effectively within the cultural context of the client, individual, family, community" (Campinha-Bacote, 2002, p.181; 2007, p. 15). Cultural competence was considered an essential skill in nursing education (Hadziabdic et al., 2016; Prosen, 2015). The first step toward acquiring cultural competence was cultural awareness (Campinha-Bacote, 2002, 2011; Krainovich-Miller et al., 2008; Papadopoulos et al., 2004) followed by cultural knowledge, cultural skill, cultural encounters and cultural desire (to be effective).

Internationally the same problem existed and, therefore, it seemed prudent to investigate nursing students' level of cultural awareness in different countries. Although no study had been undertaken in Ireland to measure undergraduate nursing student cultural awareness, identified as a gap in the literature during the current study, researchers in other countries measured cultural awareness using the Rew et al. (2003, 2014) cultural awareness scale (CAS). They either used the original English-language scale, modified it, or translated it. In date order, the following list indicates the broad and recent use of the CAS:

- Krainovich-Miller et al. (2008) USA
- Rew, et al. (2014) USA
- Heeseung et al. (2015) Korea
- Oh et al. (2015) Korea
- İz and Temel (2016) Turkey
- McElroy et al. (2016) USA
- Safipour et al. (2016) Sweden
- Hultsjö et al. (2019) Sweden
- Kumlien et al. (2020) Sweden
- Ličen et al. (2021) Slovenia

**End-of-Life Care.** According to Maier-Lorentz (2008), nurses faced challenges caring for an ever-increasing multicultural population. Many research studies also expressed concerns

regarding the care provided to culturally diverse and ethnic minority populations, especially at the end of life (Bhopal, 2012; Hannigan et al., 2018; Raleigh & Holmes, 2021). Nurses having knowledge of religious practices or rituals benefitted the patients and family at the time of death (Choudry et al., 2018; Payne et al., 1998; Wiener et al., 2013). However, research demonstrated that nurses and undergraduate nursing students were generally unprepared to provide culturally appropriate end-of-life care to dying patients and their families (Dimoula et al., 2019; Gillan et al., 2014; Hopkinson et al., 2005). Yet, it was important to respect religious rituals practiced as a part of a social culture (Bassett & Bussard, 2021; Markey et al., 2017; Wang et al., 2018). It appeared appropriate to advocate that nursing students were taught about different cultural and religious beliefs and practices, particularly those necessary at time of death. In order for nurses to acquire knowledge with regard to providing end-of-life care, the nurse educators must emphasise teaching the importance of culturally competent care at the undergraduate level. Ong-Flaherty (2015) strongly advised that cultural knowledge (in terms of religion) be incorporated into nursing education as an ongoing effort to implement strategies for enhancing nursing students' cultural knowledge.

There was one study, Fink et al. (2014), that measured nursing student perceptions and knowledge as related to spiritual care at the end-of-life with regard to three world religions: Catholicism, Judaism, and Islam. The study evaluated student knowledge and confidence after adding a simulation experience to the curriculum. Although the study design was very different from the current study, the investigative instrument was influential in the design of the tool developed for the current study. Fink et al. utilized a self-developed multiple-choice questionnaire (the Spiritual Care at the End-of-Life Questionnaire). The questionnaire contained five questions related to student perceptions of their knowledge and skill, and 15 questions regarding their knowledge of religious beliefs and customs. The content of the knowledge questionnaire (KQ) developed for the current study was very different and more comprehensive as it also explored student knowledge relating to religious symbols and the physical care of the deceased body. The current study additionally used (with permission) a modified version of the Cultural awareness scale developed by Rew et al. (2014). There was

neither existing research nor an existing tool (investigative instrument) found during the course of the current study that specifically measured undergraduate nursing students' cultural awareness and knowledge of death rituals practised by Christians, Muslims, and Hindus. This indicated a gap in the literature.

#### **1.4 Statement of Purpose**

The purpose of the current study was to consider the needs of nurses and undergraduate nursing students and their culturally diverse patients, and to support their need for culturally competent care at the time of death in a hospital setting. The aim of the study was to measure undergraduate nursing students' general cultural awareness and specific knowledge of death rituals practised by three world religions (Christianity, Islam and Hinduism). Variables in the current study included demographics and the investigation included questions related to the experiences and education of nursing students with regard to caring for people when death was imminent or at time-of-death in a hospital setting. The demographic variables included: student age, gender, place of birth, whether or not they were raised in a religious faith, whether or not they were practising a religious faith, their years of study, and their programme of study.

The theoretical framework used to guide the current study design was the Campinha-Bacote model: The Process of Cultural Competence in the Delivery of Health-Care Services (Campinha-Bacote, 2002, 2007, 2011). Participants included undergraduate nursing students studying at eight of the 13 Higher Educational Institutions (HEIs) in Ireland, ensuring representation from all four provinces of Ireland. Student participants undertook all the different programmes of study including: General Nursing, Children's and General Nursing, Psychiatric Nursing, Intellectual Disability Nursing, and Midwifery.

The cultural awareness scale (CAS), developed by Rew et al. (2003), as shown in Appendix A, was modified (mCAS) for use in the current study (see Appendix B). In mid-2021, permission was requested and received (Appendix C) to use and modify the CAS. Figure C-1 was the initial permission request by email; permission was granted (Figure C-2); and further permission was sought and granted to specifically change the word "instructors" to "lecturers" and to delete the research section, which would not be useful with the undergraduate student

population (Figure C-3). A new Knowledge Questionnaire (Appendix D) was developed by the researcher for the current study to measure undergraduate nursing student knowledge of death rituals practised by three world religions (Christianity, Islam and Hinduism).

### **1.5 Aim**

To measure undergraduate nursing students' general cultural awareness and their specific knowledge of death rituals practised by three world religions (Christianity, Islam, and Hinduism) in the Republic of Ireland.

### **1.6 Study Objectives**

The objectives of the current study followed a development, inquiry and analysis process. First, the researcher developed a Knowledge Questionnaire (KQ) from influences in the literature and through engaging informally with religious experts belonging to each of the three religions. The researcher also sought and obtained permission to utilize a modified version (mCAS) of the most recent Cultural Awareness Scale (CAS) developed by Rew et al. in 2003 and reanalysed in 2014.

The study was then implemented nationwide, approaching 5050 Irish undergraduate nursing students at eight universities in Ireland, which represented all four provinces in the Republic of Ireland. A quantitative research method (survey) was used to collect information from the students. The complete instrument included 71 questions: the mCAS (32 questions) and KQ (23 questions), along with seven personal demographic questions and nine questions related to education and experience. It was envisaged that these methods would enable the researcher to answer the research questions posed in the current study as described herein. The development and validation of the mCAS and the Knowledge Questionnaire tools was explained in Chapter 6. Outlined step-by-step, the objectives of this study were to:

1. design a questionnaire to measure the level of knowledge of death rituals practised by three world religions (Christianity, Islam and Hinduism),
2. test the validity of the knowledge questionnaire (KQ) by giving it to experts to check for face validity and content validity,



3. test the reliability of the knowledge questionnaire using Cronbach's alpha coefficient to measure the internal consistency of the set of survey items,
4. seek permission to modify and utilize the Rew et al. (2014) Cultural Awareness Scale,
5. undertake a nationwide study with undergraduate nursing students studying at Higher Educational Institutions (HEIs) in the Republic of Ireland using the two instruments developed for the current study, as well to learn their demographic, academic and professional profiles,
6. test construct validity (factor analysis) and reliability (Cronbach's alpha) of the modified Cultural Awareness Questionnaire (mCAS),
7. establish the reliability (Cronbach's alpha) of the new Knowledge Questionnaire (KQ) related to knowledge of religious death rituals,
8. measure undergraduate nursing student cultural awareness and knowledge of the religious death rituals related to three religions of the world (Christianity, Islam and Hinduism),
9. determine the correlation of the modified cultural awareness scale (mCAS) and knowledge of death rituals questionnaire (KQ),
10. explore the relationship of the demographic variables to cultural awareness and knowledge of death rituals, and
11. determine the relationship of nursing student experiences and education to cultural awareness and knowledge of religious death rituals.

## **1.7 Overview of Subsequent Chapters**

Chapter 2: The background of the study as it related to culture, death, and religion were presented in Chapter 2. This chapter explained the concept of culture in general and in the Irish context, and the introduction of culture in the nursing profession and in nursing education. It discussed anthropology and nursing, and the concept of cultural competence in nursing education. The chapter also reviewed the role of religion at the time of death, and the different terminology specific to the current study, such as religion, culture, and spirituality. Facilities and care strategies for people approaching death in Ireland were discussed.

Chapter 3: A comprehensive narrative literature review of current and relevant literature on culture, cultural awareness, end-of-life beliefs and practises as related to the three religions was discussed, along with variations in beliefs and practices, nursing education, and the challenges related to care at the time of death.

Chapter 4: The theoretical and conceptual framework for cultural competence, and the philosophical underpinnings of the study were presented in Chapter 4.

Chapter 5: The methodology, including the aims, objectives, hypotheses, research design, and ethical considerations for the current study were presented in Chapter 5.

Chapter 6: This chapter provides an in-depth review of the development and validation of the knowledge questionnaire (KQ) explicitly developed for this national study. The KQ sought to measure nursing student knowledge of the death rituals practiced by three world religions (Christianity, Islam and Hinduism) in Ireland. The extensive development and testing processes utilized to validate the new scale (KQ) were outlined in this chapter. In addition, this chapter included the processes used to create the modified cultural awareness scale (mCAS), which was based on (with permission) the CAS developed by Rew et al. in 2003 and reanalysed (re-validated) in 2014.

Chapter 7: The national study included four sections including demographics, general cultural awareness as indicated on the mCAS, the new KQ which focused on knowledge of religious death rituals related to the three largest religions in the world, and students' education and experience in with regard to caring for people when death was imminent or at time-of-death. Quantitative findings were presented in this chapter along with responses to three open-ended questions, which were analysed and presented in word clouds.

Chapter 8 comprised a discussion of the findings in terms of conclusions of the study, the correlation of the study instruments (mCAS and KQ), and recommendations for practice and future research.

## **1.8 Chapter Summary**

There were a number of challenges that health care providers faced when catering to the needs of culturally diverse ethnic minority groups. In order to overcome those challenges

and meet the health care needs of culturally diverse populations, it seemed evident nurses and nursing students must be culturally competent. Findings from the current national study had the potential to inform curriculum planners with regard to nursing students' cultural awareness and knowledge of religious death rituals, which were two of the five constructs of competence according to Campinha-Bacote (2002, 2007, 2011) and Harris et al. (2013). It was thought that advancements in the nursing curriculum could promote cultural competence. Chapter 2 presented the background of the current study by establishing the various underlying concepts and contexts.

## **Chapter 2: Background**

### **2.1 Introduction**

The background of the current study was established through exploring multiple contexts underlying the research. This chapter was organised as follows: (2.1) an introduction; (2.2) the Irish context; (2.3) anthropology and nursing; (2.4) the concept of culture in nursing education; (2.5) the introduction of culture to the nursing profession; (2.6) the role of religion at the time of death; (2.7) the terminology: religion, culture and spirituality; and (2.8) facilities and care strategies for people approaching death in Ireland; and (2.9) chapter summary.

### **2.2 The Irish Context**

Cultural competency interventions were adopted by a number of countries around the world, such as Canada, Australia, New Zealand, and the United States (referred to as CANZUS nations) for resolving racial and ethnic health inequalities (Meyer, 2012). Unlike those countries, Ireland was slow to embrace cultural care in nursing. The governing body, the Health Service Executive (HSE) National Social Inclusion Office, introduced its' first National Strategy: The HSE National Intercultural Health Strategy for 2007-2012 and updated it for 2018-2023 (National Social Inclusion Office, 2012, 2019).

Ireland's 1845 Potato Blight caused 4.5 million people to emigrate to America. The Irish population census at that point was 8.2 million (in 1841), significantly dropping to 6.6 million and dropping further to only 4.5 million people in Ireland in 1891 (Library of Congress, 2021). The Irish migration in the late 20<sup>th</sup> and 21<sup>st</sup> century was categorised as having resulted in three major demographic shifts: net emigration prior to the 1990's; an increasing number of Irish emigrants returning to Ireland between the mid-1990s and early 2000s; and unprecedented levels of immigration since 2002 (Ruhs & Quinn, 2009).

The turn around began between 1991-1996 when small inflows of immigrants entered Ireland. This rapidly increased between 2002-2006, when 48,000 immigrants entered Ireland (CSO, 2012). Increasing immigration reflected the economic boom of the 1990s, which transformed Ireland into a multi-cultural country by the early 2000's (Ruhs & Quinn, 2009). Since then, there has been a steady rise in the immigrant population in Ireland.

According to the Central Statistics Office (CSO, 2022), as mentioned earlier, the total population of Ireland was 5.12 million in 2022. Of this, 703,700 non-Irish nationals lived in Ireland, which accounted for 13.8% of the total population. Although Ireland had not regained its pre-famine population of 8.2 million, a trend towards increasing immigration was stated: An estimate of 120,700 immigrants came to Ireland in 2022 through the end of April, the highest in 15 years, with a total net migration into Ireland of 61,100 (CSO, 2022). The total population of Ireland included 768,900 persons age 65 and over, an increase of 22.1% since 2016 (CSO, 2022). This increase in the aging population also indicated the importance of cultural awareness in health care, including near death or at time-of-death.

Mac Éinrí and White (2008) explained that the mono-ethnic society was being replaced by returning Irish nationals, refugees, asylum seekers and labour migrants, changing the status to a multi-ethnic society. As a result, Ireland faced challenges in providing medical and nursing care for people from different cultural backgrounds (McCarthy et al., 2013; Tuohy et al., 2008). Considering the cultural diversity of the Irish population, the National Social Inclusion Office produced the second HSE National Intercultural Health Strategy 2018- 2023 (National Social Inclusion Office, 2019) in response to the expressed need of health care workers and staff working with people having a range of cultural backgrounds.

Research conducted in this field in Ireland seemed significantly minimal as compared to other countries and was identified as a gap in the currently existing research. According to the Irish Nursing and Midwifery Registering Council of the Nursing and Midwifery Board of Ireland (NMBI), the Code of Professional Conduct and Ethics for Registered Nurses and Registered Midwives, Principle 1, Respect and Dignity (of the practitioner and patient), Value Five (5) said "Nurses and midwives respect all people equally without discriminating on the grounds of age, gender, race, religion, civil status, family status, sexual orientation, disability (physical, mental or intellectual) or membership of the Traveller community" (NMBI, 2021, p. 9). Thus, the need to be culturally aware was formally acknowledged as important to nursing practice and education.

According to Tuohy et al. (2008), a number of post-registration education programmes were being offered at the national and local level through certain third-level institutes and professional nursing bodies. In Ireland, the third-level education sector consisted of universities, institutes of technology, and colleges of education (collectively known as higher education institutions or HEIs). In the first-year undergraduate baccalaureate nursing curricula (pre-registration, or before nurses are registered to practice in Ireland) for the Bachelor of Science degree in General Nursing, there was an optional module called Intercultural Communication, which was still pending approval from the Nursing and Midwifery Board of Ireland (NMBI) at the time of this writing (early 2023). In year two, there was another optional module called Culture, Health and Illness in the Dublin City University (DCU) Book of Modules for Bachelor of Nursing and General Nursing Education (DCU, 2018a). Upon speaking informally to one of the lecturers who taught this optional module to students at one university in Ireland, it was said that this elective module was often chosen by the non-Irish nursing students.

The elective module aimed to introduce nursing students to the basic concepts and themes in the anthropology of health and healthcare. The module covered issues related to culture; body; expressing suffering; explaining illness and the enactment of care; healthcare pluralism; the popular, folk and professional biomedical healthcare sectors in the context of global care chains; managerialism; and patient mobility. By using examples from studies conducted on the day-to-day experiences of health, illness and healthcare in both western and non-western societies, the elective module was intended to provide students with new perspectives on the ways in which human suffering was grounded in larger social and cultural contexts. Although this module covered important topics, it was not a compulsory module, hence only a few students took the course. As the Bachelor of Science degree for the undergraduate nursing curriculum in Ireland was under review as of this writing, it was hoped that the review will bring about positive changes in the nursing education in relation to integration of modules related to culture, religion and death rituals.

Tuohy et al. (2008) also pointed out that socio-cultural components of health care were addressed in modules like psychology, health and sociology, and core nursing modules, but they did not address the cultural needs of the patients under their care. To guarantee that nursing staff and other healthcare team members had the opportunity to develop their knowledge in terms of caring for people of a different culture living in Ireland, cultural awareness programs needed to be much more extensive and strategic. Because anthropology informed the study of culture, it seemed critical to recognize the link between the two disciplines.

### **2.3 Anthropology and Nursing**

The study of anthropology in nursing was different compared to medicine and medical anthropology. Understanding this difference seemed vital to the study of anthropology and nursing. Anthropology and nursing shared close links regarding their function. According to Ingold (1979), anthropology was like a philosophy involving people. Anthropological studies sought to understand people's differences, but also attempted to discover commonalities (Eriksen, 2001). Cultural anthropology attempted to account for the social and cultural variation in the world.

Similarly, in the nursing profession, nurses sought to learn each person's social and cultural preferences in order to provide care suited to each individual. In the past, there was a failure to understand the differences between medicine and nursing, and often nursing was subsumed within medicine (Dougherty & Tripp-Reimer, 1985). Therefore, understanding the differences seemed crucial to understanding anthropology and nursing. Although the term health care involved both nursing and medicine, anthropologists equated health care only with medicine (Dougherty & Tripp-Reimer, 1985; Leininger, 2001). Medicine, they said, was primarily concerned with disease aetiology, pathophysiology and treatment. Whereas nursing, according to the International Council of Nurses [ICN] in 2002, was defined as encompassing "autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes promoting health, preventing illness, and caring for ill, disabled and dying people" (International Council of Nurses, 2023).

Thus, nurses were thought to provide multiple forms of care, continuous and less discrete than medicine. While physicians diagnosed and treated pathology, nurses were concerned with actual and potential health needs which emerged in response to illness or health states (Dougherty & Tripp-Reimer, 1985). Therefore, understanding the difference between nursing and medicine seemed crucial to understanding nursing and anthropology, which seemed closely related. Just as anthropology used an ethnographic method to collect data (such as in fieldwork settings), nurses also collected information from patients by their physical association as participant observers in nursing homes, hospitals, and other settings. The physical proximity of nurses to patients, as well as extended contacts, provides information different from that which was typically collected by a physician. However, the method of investigation in these two domains was phenomenological (Dougherty & Tripp-Reimer, 1985).

Another conceptual approach shared by both anthropology and nursing could be the commitment to holism. Anthropology, a holistic study of human behaviour, provided nursing and other fields with information about care that other disciplines may have been unable to provide. Nursing focused on the link between health and sickness in the cognitive and physical domains, fostering environmental, familial, and individual consideration in health, illness, and recovery (Leininger, 2001). In contrast to other professions, nursing was dedicated to the patient's whole care, which was similar to the anthropological study of humans. However, the distinction between the two domains was based on the level of analysis. Nursing focused on individuals and used cultural norms as a framework to analyse their behaviour, whereas anthropology focused on cultural norms, a macro-level of research (Dougherty & Tripp-Reimer, 1985). Another primary distinction between nursing and anthropology appeared to be that the nursing professional required a license to serve in a community, but anthropologists did not have a societal mandate; anthropology was simply a field of study (Dougherty & Tripp-Reimer, 1985; Leininger, 2001).

## **2.4 The Concept of Culture in Nursing**

Culture seemed inextricably linked to the conduct of nursing and nursing education. The integral elements of nursing, as introduced by Fawcett (2002) and, later, Fawcett and



DeSanto-Madeya (2012) included persons, health, nursing, and the environment, all implicitly linked with culture. Culture was important for all the things humans do in this world. Yet, the concept of culture was difficult to define. Culture was termed as one of the most complicated words in English language (Williams, 1983, p.87). Culture by its very nature meant different things to different people (Suominen et al., 1997) and was a notoriously difficult term to define. Every person viewed culture through their own cultural lens (Collison, 2020). Culture was multifaceted and complex.

Culture, as a term, originated from the Latin word 'colere', which meant to cultivate (Eriksen, 2001, p. 3). The word 'colony' had the same origin. Cultural anthropology was considered knowledge of those aspects of humanity which were acquired by humans, not naturally occurring (Eriksen, 2001). Chick (1997) described culture as a complex concept which could mean different things to different individuals. Chick felt, although culture was widely used, its precise meaning varied from one situation to another. For some people, culture could be represented through art, music, or food. For others, it could mean race or ethnicity. Within nursing, culture meant meeting the needs of the patients and vulnerable populations (Marzilli, 2014).

In the early 1950s, Kluckhohn and Kroeber (1952) compiled a list of 164 different definitions of culture (p. 247). Still, in the modern world of the 21<sup>st</sup> Century, there seemed to be a lack of agreement among anthropologists on a concise definition. Such an extensive list of definitions clearly illustrated the complexity of the word and called into question whether culture could ever be fully defined and understood.

As mentioned earlier, a conceptual approach shared by both anthropology and nursing seemed to be the commitment to holism. Anthropology was viewed as a holistic study of human behaviour. The nursing profession took a multi-faceted approach to the care of the patients, also a holistic approach. The holistic approach took to consideration the whole person, interconnecting the mind, body, spirit, socio-cultural context, emotions, relationships, context and environment (Zamanzadeh et al., 2015). All of these aspects combined to create a person. Florence Nightingale emphasised the significance of holistic care (Keegan, 1987) and was a

leader in public health. For healing to take place as a whole, nursing integrates knowledge, theory, intuition, and experience as guides for building a relationship with a patient. In providing holistic care, nurses may have also integrated alternative medicine and practice into their nursing care to address patient's physical, psychological and spiritual needs.

When nurses did not provide holistic care, according to Olive (2003), it was due to fragmentation of care, lack of dissemination of nursing information, and privacy concerns. The barriers in nursing education identified by nursing educators, according to King and Gates (2006), were the emphasis of nursing as a medical model, but one that failed to recognise nursing's commitment to care.

According to King and Gates (2006), historical representations of the physician as the dominating healthcare provider, and media portrayals of nursing as fast-paced and acutely focused, were believed to drive students to select nursing as a career. With a rising emphasis on biological allopathic medicine, more of a nurse's time was devoted to interventions related to the medical plan of care, leaving less time to adopt holistic nursing care approaches. In several nursing schools, King and Gates found the diversity of faculty perspectives contributed to additional areas of resistance. Curriculum was an additional limitation. Incorporating holistic nursing approaches could be impacted by time constraints. It was difficult to locate holistically trained nurses to teach in undergraduate nursing schools due to limited resources. These hurdles were exacerbated by a shortage of funding for suitably trained nurses in this speciality. Insufficient leadership and/or dedication on the part of deans or directors was also identified as a factor in this obstacle (King & Gates, 2006). Adding to the already complex concept of holism was the idea of cultural care.

As stated earlier, Zamanzadeh et al. (2015) had described a holistic approach to care, the mind-body-spirit-emotion-environment approach, which nurses could apply to the practice of traditional nursing. The American Holistic Nurses' Association defined five basic values for holistic nursing practice, one of which was therapeutic environment and cultural diversity (American Holistic Nurses' Association, 1988). Rew (2000) explained that nurses had acknowledged the importance of the environment in setting the stage for healing and health

promotion since the time of Florence Nightingale. The environment encompassed not only the obvious, such as food, shelter, and clothing, but also the subtler aspects, such as the caretaker's voice inflection and body language. All of these environmental elements were inextricably linked to one's culture and ethnicity. As a result, it was critical for those who identified as holistic nurses to learn cultural competency (Rew, 2000).

The need for cultural competency invariably created a challenge for nurse educators charged with teaching culture, and it begged whether culture as a topic could ever be fully taught and understood. Nursing and caring were the two words often used interchangeably in the literature. However, Leininger (1996) suggested that, although caring was a universal phenomenon, its manifestation was very much dependant on culture (Tuohy et al., 2008). Therefore, understanding the universal differences in the care of a person was essential.

A preliminary definition of culture stated that culture was "that complex whole which includes knowledge, abilities, notions and forms of behaviour persons have acquired as members of the society" (Tylor, 1971, as cited in Eriksen, 2001, p. 3). Although this definition related to the specifics or particulars of social groups, it was still used by most anthropologists according to Eriksen. This perspective was likened to nursing, given the fact that nursing was recognised as a complex practice.

There were hundreds of definitions of culture and, over time, anthropologists learnt that including specifics limited the meaning of the definition to a specific cultural group rather than applying to all cultures. Kroeber and Kluckhohn (1952) proposed that culture was not merely a set of behaviours, but the product of psychological, social, biological, and material factors. Thus, the focus on the meaning of behaviour, not just a description of the behaviour itself and even this attempted simplification of culture, produced a rather complex matrix of overlapping concepts (Mac Lachlan, 1997). Eventually, anthropologists understood that, rather than trying to create a definition of culture, it was rather easier to understand culture as a process. According to Nanda and Warms (2014), culture was learnt, culture was shared, culture was symbolic, culture was adapted, culture was integrated and finally culture was performed.

Enculturation was a process by which culture was learnt (Kottak, 2015). How culture in nursing was learnt warranted further discussion.

## **2.5 The Introduction of Culture in the Nursing Profession**

Nursing existed as a learnt profession, and cultural education in nursing had to be learnt to be practised. Dr. Madeleine Leininger was the first nurse anthropologist and founded the discipline of transcultural nursing. She also founded the ethno-nursing qualitative research methodology, the Council on Nursing and Anthropology with the American Anthropological Association, the Society for Applied Anthropology, the Transcultural Nursing Society, and the Journal of Transcultural Nursing (Ray, 2011, 2019).

A number of authors discussed Dr. Leininger's contributions to nursing. In 1955, Leininger was practising as a nurse in a child psychiatry home that served many different cultures. The facility had a focus on behavioural and general health needs. Leininger observed that the children were often misunderstood and did not receive care congruent with their culture or background (Leininger, 2008). Health professionals did not have enough knowledge about culture to apply to patient care, a deficit that had long existed in nursing training at the time. It had become clear that the profession needed to be effectively practiced in a world that was becoming increasingly multicultural.

These observations were the basis for Leininger (2008) developing a model with a cross-cultural vision of caring for a person. Based on social anthropology and nursing science from a transcultural perspective of human care, Leininger developed a theory called transcultural nursing (Leininger, 1991, 2002a, 2002b, 2008). Leininger's Sunrise Model explained the Theory of Cultural Care Diversity and Universality. Leininger's theory of cultural care diversity and universality, also known as transcultural nursing, revolutionized nursing as an integral part of humanity. She was the architect of cultural theory in nursing (Betancourt, 2015; Fawcett, 2002; Narayanasamy, 2002; Narayanasamy & White, 2005; Papadopoulos et al., 1994; Papadopoulos et al., 2004). For example, Betancourt (2015) supported the transcultural care theory as it actively incorporated patient's values, beliefs, and background into every step of the nursing process. Narayanasamy (2002) identified transcultural nursing as

a feature of health care in multicultural Britain with the development of the ACCESS model to offer nurses a framework to deliver transcultural care. Narayanasamy and White (2005) highlighted the models of transcultural care practice and contemporary developments in culture.

Transcultural nursing employed the concepts of ethnicity, race and culture to understand individuals' perceptions and behaviours (Leininger & McFarland, 2006). Nurses needed to consider these concepts to deliver culturally congruent healthcare. Cultural care was not presented as an addition to a care plan but as a force that was interwoven throughout health and care (Leininger & McFarland, 2006). Leininger was an advocate for the concept of care being inextricably linked with nursing, and stated the manifestation of care, a universal phenomenon, was very much dependant on culture (Cortis, 2000). However, the practice of cultural care was not always possible because cultural care in nursing meant that nurses must modify the environment in order to cater to individual person's needs (Foster, 2020).

Lancellotti (2008) critiqued Leininger's theory as having failed to solve social concerns and as having contributed to the maintenance of the status quo. According to Lancellotti, it was more likely that misinterpretation or abuse of Culture Care Theory had resulted in stereotyping and institutionalised racism. Although there were a number of models developed within nursing related to culture, and a growing amount of transcultural nursing research, there was a lack of literature implementing those models (Sagar, 2011 p. xvii).

Some of the best known transcultural and cultural competence models outlined by Sagar in 2011 were, in date order:

- Leininger's Sunrise Model, which explained the Theory of Cultural Care Diversity and Universality (Leininger, 1991);
- Josepha Campinha-Bacote's Process of Cultural Competence in the Delivery of Health Care Services (Campinha-Bacote, 2002);
- Joyce Newman Giger and Ruth Davidhizar Transcultural Assessment Model 1988 (Giger & Davidhizar, 2002);

- the Papadopoulos, Tilki and Taylor Model for developing Cultural Competence (Papadopoulos, 2003); and
- Purnell's Model for Cultural Competence (Purnell, 2002).

All of these models were validated through an assessment instrument linkage and made a significant contribution in the field. It seemed important to indicate that no model was superior than another (Albougami et al., 2016). The concept of cultural competence and the model used for the current study will be explained in more detail in Chapter 4: Conceptual Framework.

## **2.6 Role of Religion at the Time of Death**

The role of religion as a part of culture in nursing was traced back to the nursing profession's early origins, which had strong ties to end-of-life care in terms of assisting sick people (Garrett, 2021). Florence Nightingale, a founder of modern nursing, supported the role of religion in nursing and carried out her duties as both a Christian and a nurse in the mid-19<sup>th</sup> century (Joy, 2005). Since then, the profession grew to be a secular profession, until the later stages of 20<sup>th</sup> Century (Garrett, 2021). However, the study of religion in the context of nursing education was gaining popularity in the 21<sup>st</sup> Century.

According to the World Population Review (WPR, 2023b), 85% of the people in the world identified with a religion. Christianity was the most popular religion, with an estimated 33% of people claiming it, followed by Islam with over 24%. Hinduism was third, and other religions were claimed to a lesser degree, such as Buddhism, Folk Religions, and Judaism. In addition, there were approximately 1.2 billion non-religious, agnostic or atheist persons on the planet.

The religious distribution worldwide prior to 2016, as a ratio, was similar to the statistics in Ireland, according to the Central Statistics Office (CSO, 2016). Religious demographics in Ireland included Roman Catholic 78.3%, Church of Ireland 2.7%, other Christian 1.6%, Orthodox Christians 1.3%, Muslim 1.3%, other 2.4%, none 9.8%, and undefined 2.6% (CSO, 2016). In 2020, the WPR (2023b) and in Ireland specifically (WPR, 2023a), identified the Irish population as primarily Roman Catholic (84%) with a growing population of Muslims, 4% non-religious (14% in Northern Ireland) and smaller groups of other

religions. The terms religion, culture, and spirituality were often confused as discussed in the next section.

## **2.7 Terminology: Religion, Culture and Spirituality**

The importance of religion as a subset of culture was often confused. Schilderman and Beyers (2015) suggested that one way of viewing religion was as a cultural phenomenon. According to some scholars, culture and religion were cousins and considered important concepts when studying religions (Beyers, 2017). To understand the religious rituals practised at the time-of-death or near impending death, it was critical to study culture and religion.

Religions had unique beliefs about life after death, as well as behavioural rules that regulated life in a social society (Brown, 2014; Koenig, 2009). Religion was often organized and practiced in a group environment, but it could also be practiced secretly or alone. Religion was also defined as a long-standing custom originating from a group of individuals who shared similar ideas and practices (Koenig, 2009).

According to Beyers (2017), religion was easily integrated into the concept of culture when researched as part of the cultural sciences. When religion stood in opposition to culture, however, it was feasible to distinguish religion from a worldview that governed a cultural group. Religion was defined as "Organised faith systems, traditional beliefs, practices, and structures" (Walsh, 2010. p. 331).

In nursing the term religion was used in a broad and multidimensional way (Bakibinga et al., 2014). It meant the "beliefs, practices, and rituals associated to the sacred" (Koenig, 2009, p. 284). The term sacred referred to the numinous (the mystical, the supernatural) or God, as well as the ultimate truth or reality (Koenig, 2009). Although the words were closely connected, summarising the impact of a religion was difficult because of the many variants of practice within a single religion as well as the impact of the culture on ethnic groups or country of origin or residence. When it came to religion, spirituality was frequently emphasised. It appeared that the two terms were linked in the literature. However, in research and in public surveys, the ideas of religion and spirituality were incorrectly polarized, confused and jumbled (Walsh, 2010).

According to Tisdell (2010), spirituality, religion, and culture were all complicated issues. Spirituality was a more widespread and comprehensive umbrella phrase. Spirituality was considered religion's heart and soul, and could be expressed through personal faith or by non-religious persons outside of an organized religion (Hill & Pargament, 2003). These terms were intertwined rather than separate concepts (Hill et al., 2000).

According to Koenig (2009), in recent years spirituality had become more popular than religion. It was viewed as more personal, with less rules, regulations, and obligations. Spirituality in today's context had a different meaning than it did in the past (Koenig, 2009). There were people who identified as spiritual-but-not-religious; they rejected religion and defined spirituality solely in individualistic, secular terms (Koenig, 2009). However, for the purpose of the current study, spirituality was considered from a religious perspective, religion as an expression of spirituality.

## **2.8 Facilities and Care Strategies When Approaching Death in Ireland**

According to an article in the Irish Times: Health section (June 19, 2000), the word hospice was derived from a Latin “*hospitium*”, meaning a guest (para. 1). The hospice was first started in the late 19th century. Dame Cecily Saunders worked for several years as a young doctor at St Joseph's Hospice in London's East End. She founded St. Christopher's in 1967 and was credited as making palliative care socially and medically acceptable (para. 2).

Two early hospices were founded between 1979 and 1984. Respectively, Our Lady's Hospice in Dublin and Marymount Hospice in Cork propelled the present hospice movement. Milford Care in Limerick had been commissioned to provide specialist palliative care since the 1980s. Several hospices, notably St. Francis Hospice Dublin, North West Hospice, Galway Hospice, Donegal Hospice, and Blackrock Hospice, were commissioned in the 1990s to offer local catchment areas with specialised palliative care services, such as inpatient admissions, day care, and home care. Hospice Friendly Hospitals provided quality standards for end-of-life care in hospitals on their website in 2023 (IHF, 2023a).

While hospices served people who had ceased curative treatments and had only a short time to live, palliative care programme addressed serious illness and treatment. The Irish's



Government's commitment to this area of care, recognising its importance, was first reflected in a National Health Strategy in 1994. The National Advisory Committee on Palliative Care was founded in 1999 (Government of Ireland, Department of Health and Children, 2001, p. 25). The government committed to the continued development of these services in a structured manner in order to achieve the highest possible quality of life for patients and their families. In Ireland specialist palliative care services were provided by the Health Service Executive (HSE) in conjunction with the voluntary sector to ensure that patients and families were receiving continuous active total care at a time when there was no expectation of medical cure. The HSE National Clinical Programme for Palliative Care, founded in 2010, was a collaboration between HSE Clinical Design and Innovation and the Royal College of Physicians (HSE, 2023). The objective of the National Clinical Programme for Palliative Care was to guarantee that patients with life-limiting diseases and their families had easy access to an appropriate level of palliative care services, regardless of type of care, location or diagnosis (Lenus, The Irish Health Repository, 2023).

The 2020 Programme for Government later pledged to publish a revised Palliative Care Policy for Adults to replace a 2001 policy, according to an updated (2022) statement on the government website first published in 2014 (Government of Ireland, DOH, 2014). The new strategy was intended to reflect the numerous advancements in end-of-life care and global best practises. The policy was also intended to account for predicted growth in the elderly population in Ireland, as well as the rise in the number of persons with life-limiting diseases who might benefit from palliative care (Government of Ireland, DOH, 2014).

According to the Irish Hospice Foundation Annual Report for 2020 and for 2021 (Irish Hospice Foundation, 2021a; 2022a) each stated 40% of deaths occurred in acute hospitals and 46% in the community (at home, in nursing homes and community hospitals) (p. 6). There were, by this time, a number of strategies and care facilities provided for people approaching death in Ireland, such as hospitals, nursing homes, hospices, and palliative care centres. A 2022 Review of the implementation of the 2001 report from the National Advisory Committee on Palliative Care (Johnston et al., 2022) provided a number of suggestions, including delivery

structure, palliative care specialists, education and training, funding, and bereavement programmes. According to the suggestions therein, palliative care should be provided at three levels of specialization with each level requiring the expertise of the staff providing services.

- **Level 1:** the adoption of a palliative care approach by nonpalliative care health care professionals;
- **Level 2:** general palliative care that was provided at an intermediate level in hospitals and the community, a proportion of patients and families will benefit from the expertise of health care professionals who, although not engaged full time in palliative care, have had some additional training and experience in palliative care; and
- **Level 3:** specialist palliative care services, those core activities limited to the provision of palliative care (Johnston et al., 2022, p. 59).

The palliative programmes (Government of Ireland, DOH, 2014) were intended to work closely with external strategic partners in palliative care including the All Ireland Institute of Hospice and Palliative Care, (AIIHPC), the Irish Association for Palliative Care, the Irish Hospice Foundation (IHF) and Irish Palliative Medicine Consultants Association. The Programs were to collaborate closely with the National Director and General Manager of Palliative Care. As Palliative Care was given in all healthcare settings, the Programme could collaborate extensively with all relevant Health Service Divisions to promote a system-wide approach to advancing Programme work streams and improvements (Government of Ireland, DOH, 2014).

More recently, the Irish Department of Health (DOH), announced the National Cancer Strategy 2017- 2026 to meet the needs of cancer patients in Ireland (Government of Ireland, DOH, 2017). The first cancer care strategy was published in 1996 and the second in 2006. These policies attempted to prioritise the needs of service users and advised enabling them to voice their preferences and choices as to where they wish to receive care and spend their final days. In addition, the strategy emphasised a flexible service provision that allowed service users to move freely between care settings based on their needs. The ultimate goal of the National

Cancer Strategy 2017- 2026 was to provide specialised palliative care to those in need (DOH, 2017). Nonetheless, there was no locally or nationally accepted plan or strategy for promoting and delivering palliative care.

Despite their pledge to offer resources, and the availability of eight dedicated palliative care programmes, the IHF identified significant shortcomings in the provision of palliative care in the IHF Annual Report of 2021 (IHF, 2022a). In 2021, the IHF Annual Report also identified significant shortcomings in the provision of palliative care in the Midlands regions (Laois, Longfords, Westmeath, Louth, and Meath), which remained the last area in Ireland without plans for a specialised inpatient unit for those requiring hospice care. The funding allocated for specialised palliative care varied widely across the country, from Euro 30 per person in the Midwest to less than Euro 11 per person in the Midlands (IHF, 2022a).

The Irish Hospice Foundation Strategy 2020-2025 aimed to provide care and help to persons confronting death, dying, and bereavement in Ireland (The Irish Hospice, 2020b). The Department of Health put out a Statement of Strategy for 2021-2023 (Government of Ireland, DOH, 2021). The All Ireland Institute of Hospice and Palliative Care, (AIHPC) developed a palliative care strategy for 2023-2027 which stated “the predicted growth of palliative care in the Republic of Ireland was 75% by 2046” (AIHPC, 2022).

Overall, as the focus shifted from traditional perspectives for providing palliative and end-of-life care to cancer patients to providing care for a more general, non-malignant patient population, a number of noteworthy and influential studies and reports on these subjects were produced. Although discussing them was beyond the scope of the current study, some included:

- O’Shea et al. (2008) wrote about end-of-life care for the elderly in acute and long-term care settings in Ireland.
- The Health Service Executive and Irish Hospice Foundation (IHF, 2008) produced a report on Palliative Care for All: Integrating Palliative Care into Disease Management Frameworks.

- The Health Information and Quality Authority's (HIQA) standards for residential care settings was produced in 2009.
- The Hospice Friendly Hospice (HFH) programme, initially developed as a 5-year initiative (2007-2012) (IHF, 2022b) through the Irish Hospice Foundation in partnership with the HSE and, as of the current website, partnered with 47 hospitals nationwide (IHF, 2023a). Quality standards for end-of-life care were provided in 2022 (IHF, 2022c).
- A National Audit of Care at the End of Life (NACEL) was undertaken across 54 acute and community hospitals having 75% of the national acute bed capacity in Ireland, the first study of its' kind in the EU. The study was a "national comparative audit of the quality and outcomes of care experienced by the dying person and those important to them during the last admission leading to death" (NHS, 2022). The latest NACEL report will be produced in summer of 2023.

## **2.9 Chapter Summary**

This chapter provided the background and context for the current study. The importance of culture in the Irish context was discussed. Although the term culture was abstract, ambiguous, and subjective, it had taken prominence in nursing education as one of the important concepts to be learned in order for nurses and nursing students to provide culturally competent care and holistic care to people under their care. The current chapter also provided a brief explanation of the role of religion, culture and spirituality, and clarified the usage of the terms in the current study. Also, the evolution of facilities provided for people in Ireland approaching death were discussed, along with national policies and strategies for providing palliative and hospice care. The next chapter, Chapter 3, provided a review of the existing literature related to the aims and objectives of the current study.

### **Chapter 3: Literature Review**

A review of previously conducted studies relating to the purpose and research questions of the current study was conducted and presented in this chapter. This chapter was organised into the following sections: (3.1) the introduction; (3.2) search methods; (3.3) statement of purpose; (3.4) cultural awareness in nursing education; (3.5) spirituality and religion in nursing; (3.6) death; (3.7) student nurse education and challenges; (3.8) the formulation of research questions; and (3.9) conclusions.

#### **3.1 Introduction**

Conducting a literature review was an integral part of this research project in the field of health care in order to diligently ensure the study's methods, aims, and foundations were sound. The information available to health and social care professionals was expanding rapidly due to information technology and an emphasis on evidence-based practice (Aveyard & Bradbury-Jones, 2019; Grant & Booth, 2009). The current study explored nursing student cultural awareness and knowledge of death-related religious rituals based on Christianity, Islam, and Hinduism. Considering the broad nature of the variables in the current study, which were nursing students, culture, cultural awareness, death, religions and rituals, it was essential to gain comprehensive knowledge and understanding of the topic. Conducting a narrative review seemed the best approach as it incorporated a broad range of knowledge sources and strategies for investigating multi-level interpretations using creativity and judgement (Malterud, 2001; Whitty, 2015).

A narrative review was a comprehensive, critical and objective analysis of the current knowledge on a topic (Greenhalgh et al., 2018; McNally, 2023). This type of review was conducted using various distinctive methodologies, which diverged from the classic methodology of a systematic review. A systematic review followed structured and predefined methods to identify, appraise, and synthesise the relevant literature. Systematic reviews had specific inclusion and exclusion criteria based upon strict protocols, such as a PRISMA statement or Cochrane protocol. To critically appraise existing studies and literature, a narrative review was undertaken for the current study. A narrative review could play a vital role in

expanding our understanding, not only of the topic in question but also the reasons it had been studied in particular, the interpretations that were previously made regarding what we knew about it, and the nature of the knowledge base that informed or might inform clinical practice (Greenhalgh et al., 2018). In terms of rigour, narrative reviews usually had no defined method or systematic approach for searching for or appraising literature (Aveyard & Bradbury-Jones, 2019). To achieve the goals of the current study, undertaking an extensive literature review was intended to identify gaps in the existing research, to establish the best methodological approach for the current study, and to gain insights into recommendations for practice.

### **3.2 Search Methods**

The databases searched in the course of the current study (Appendix E) included the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, Academic Search Complete, PubMed, PsycINFO, Cochrane Library, Citation Databases such as Scopus and Web of Science. The JSTOR database was also searched for journals related to the topic of the current study. Appendix F listed the keywords and the number of the searches conducted during the current study.

A general search of the internet was also conducted to locate relevant open-source literature such as policy documents and reports published on the topic. Searches also extended to national documents including the Nursing and Midwifery Board of Ireland (NMBI), the Health Service Executive (HSE), the Department of Health (DOH), and the Health Information and Quality Authority (HIQA). A search of international organisations, such as the World Health Organisation (WHO), International Council of Nurses (ICN), and Transcultural Nursing (TCN), generated other materials and textbooks.

Articles were identified from within source reference lists found in the literature review (articles and research papers) related to culture and nursing student awareness. Death-related religious rituals were less common in the databases, except for PubMed. Initially, only articles related to nursing students were reviewed, but because there was such a small number of articles, research papers which included nurses were also considered for review.

### **3.3 Statement of Purpose**

The one thing that all humans have always had in common has been our pending death, regardless of how or where we were born (Gire, 2014). Death was seen as universal, and yet within this universality, there was diversity in practices related to death. Religious beliefs and customs learnt from a group culture played a major part in the life of many individuals at the time of death. Death involved the cessation of physical, psychological, social, and spiritual life here on Earth (Lowey, 2015). Despite the differences with which each individual (and family, friends, colleagues) experienced a death, nurses were playing a pivotal role in caring for patients and their families from different cultures at or near the time of death.

Globally, The World Health Organisation (WHO) reported a lack of knowledge and education on death and dying despite a vital and increasing need for cultural awareness (WHO, 2014). As the world becomes increasingly culturally diverse in the 21<sup>st</sup> century, trending towards globalisation, there appeared to be a pressing need for nurses, health care professionals and educational institutions to ensure nursing students can competently deal with the diverse cultures in real world practice (Leininger, 2008; Walker et al., 2011). When it came to dealing with people from different cultural backgrounds, nurse educators needed to realise that there was more to the nursing profession than clinical expertise.

An extensive literature review was undertaken to explore and critically appraise the literature published on the topic of the current study. Although there was a great deal of research related to death and religion, there was a dearth of research published on undergraduate nursing students in Ireland and their cultural awareness or knowledge of the different religious rituals practised at the time of death by Christians, Muslims and Hindu people. This was identified as a gap in the research for the purpose of the current study. Thereafter, literature searches were done to gather all relevant articles. A comprehensive approach was undertaken in analysing and interpreting the resulting materials.

### 3.4 The Formulation of Research Questions

The literature review in the current study illustrated complexity in terms of nursing students' ability to provide cultural and religious care to patients at the time of death. A great many factors needed to go into training and education to prepare nurses for end-of-life care, particularly in a multicultural environment. Although there was increased emphasis on cultural care in nursing, there was little research on the awareness or knowledge levels of nursing students' and how cultural care could be taught to them. It appeared to be a gap in the literature, specifically with regard to studies in Ireland. The current study intended to explore the general cultural awareness and specific knowledge of undergraduate student nurses in the Republic of Ireland.

The overarching research question was: In Ireland, what are undergraduate nursing students' general cultural awareness and specific knowledge of death rituals practised by three world religions (Christianity, Islam, and Hinduism)? Sub-questions included:

1. What is the demographic and professional profile of undergraduate nursing students in the Republic of Ireland?
2. What are the validity and reliability of the modified cultural awareness questionnaire and the reliability (internal consistency) of the knowledge questionnaire?
3. What is the cultural awareness and knowledge of undergraduate nursing students in Ireland as related to death rituals of the three world religions?
4. What is the correlation between cultural awareness and knowledge of religious death rituals?
5. What is the relationship between the demographic profile of nursing students to their cultural awareness and knowledge of death rituals?
6. What is the relationship of student experiences and education in caring for people at the time of imminent death (or time of death) to cultural awareness and knowledge of death rituals?

By answering the research question(s), this study hoped to contribute to existing knowledge in the field of cultural education in undergraduate nursing education, and to generate



knowledge specific to the religious death rituals of three religions (Christianity, Islam and Hinduism).

### **3.5 Cultural Awareness in Nursing Education**

#### ***3.5.1 Introduction***

Cultural awareness in nursing education seemed very important because nurses had faced an increased need to care for culturally diverse patients (Seal et al., 2018) . According to Krainovich-Miller et al. (2008), the first step to gaining cultural competence began with cultural awareness (Campinha-Bacote, 2002; Marcinkiw, 2003; Rew et al., 2003). In order to gain insight into culture and the cultural awareness of undergraduate nursing students, a literature review was conducted. The initial search revealed a total of 1,285 articles from the years 1984 through 2023. Limitations were placed on year, language, and peer-reviewed journals, reducing the number of articles to 482. Each article was scanned initially by title and abstract. Only articles related to cultural awareness and nursing students were chosen for in-depth review. After careful examination, a total of 18 articles were selected and analysed for this section.

#### ***3.5.2 Promotion of Cultural Awareness for Nursing Students***

In order to meet the needs of diverse patients, nursing schools were pushed to prepare students to care for persons from various cultural and ethnic origins (Rew et al., 2003). The practice of first researching or studying cultures, to understand how each culture shapes an individuals' impression of people from those cultures, lead to cultural awareness (Sealey et al., 2006). Nurses could use this knowledge to compare and contrast their own culture with that of others, allowing them to develop cultural awareness and acceptance of people from many cultures (Rew et al., 2014). The nursing literature highlighted different strategies by which cultural awareness could be promoted in undergraduate nursing education.

According to prior research, cultural awareness involved more than academic education; it also necessitated practical knowledge gained through actual life experience (Bohman & Borglin, 2014; Hultsjö et al., 2019; Smith-Miller et al., 2010). Bohman and Borglin (2014) conducted a descriptive qualitative study on Swedish nursing student perceptions of student exchange programme experiences. The students demonstrated increased cultural

awareness and understanding of the underlying behaviours, attitudes, and beliefs of others beyond their own view of the world. Cultural aspects and cultural awareness were emphasised as strong motivational factors, both personal and professional, behind student participation in exchange programmes. The exchange programme lasted 12 weeks, however the sample comprised only nine students, making it difficult to generalise findings to other populations or a larger population of Swedish exchange students in the field of nursing.

Similarly, Smith-Miller et al. (2010) conducted a qualitative study in the US to analyse student reflective essays. The objective was to explore how short-term international immersion experiences in a Spanish speaking country fostered critical examination of cultural perspectives and strengthened culturally competent nursing practice. The intent was to reveal the changes that occurred and how participants utilized their experiences in their workplace. A representative sample of 15 reflective essays, written by baccalaureate or master's degree nursing students, were selected for examination out of the 53 submitted between 2005-2008. Both male and female students were involved in the study. The age range was 22-50 years old and the students had varied ethnic backgrounds. The short-term experiences increased student understanding of the daily language barriers faced by non-English speaking immigrants to the US. Acquisition of cultural knowledge, particularly the importance of family, was amplified through the immersive experience of living with host families. Overall short-term global experiences contributed to students' personal growth and broadened their insight into multicultural care.

Booth and Graves (2018) also studied a short-term service-learning initiative at the University of Alabama, USA, to explore baccalaureate nursing student observations and perceptions regarding culture and health in a rural community. The student experience involved a short-term medical mission to the United Republic of Tanzania. Students showed increased awareness of global cultural differences, decreased stereotyping, developed inter-professional relationships, and improved compassionate care. This experience exposed students to health disparities in a very different rural setting. Data was collected through students' personal journals, which was considered a good way of capturing their subjective views. Again, the

sample size was small, comprised of only 11 nursing students (10 females and one male student) making generalisation of the findings inappropriate. This study demonstrated that student exposure to different cultures and religions through immersion programmes helped increase their cultural awareness.

At the time the current study was initially written, immersion approaches became limited due to the pandemic (COVID-19) concerns, which restricted people travelling to other countries (to prevent the spread of the disease). As the current paper reached its' conclusion, it seemed most of those restrictions had been lifted. In Ireland, according to the Irish Nurses and Midwives Organisation [INMO], 49% of the nurses that registered to practice in Ireland in 2019 were from outside the EU (INMO Press Release, 2020). This was way by which local nurses had the opportunity to associate with nurses from other countries in order to learn about different cultural and religious issues, and vice versa.

Within the western health care system, refugees' cultural beliefs, communication barriers, and low health literacy could lead to health disparities. Sullivan (2009) described a teaching-learning strategy used by senior community health nursing students in collaboration with an immigrant-refugee program and a community literacy program to provide health promotion and prevention services to recently immigrated Hmong and Russian refugees in a rural state. This program demonstrated health needs were identified and culturally appropriate health promotion and prevention education was provided.

Similarly, in order to reduce stigma through improved self-awareness of potential for bias, and to promote cultural awareness in nursing students, Blake et al. (2020), exposed students to three unconventional clinical sites and settings associated with stigma, including an HIV clinic. Prior to attending clinical instruction in the non-traditional learning environment, students expressed concerns, bias, anxiety, discomfort, and fear. Students reflected upon the three clinical encounters thereafter and all students returned positive ratings with regard to each encounter. Students reported increased self-awareness, less bias, and a more favourable view of these unique communities. Blake et al. (2020) suggested nursing faculty address student self-awareness of bias and perceptions among stigmatized groups.

Hoffmann et al. (2005) used a collaborative approach to expand clinical experiences with regard to culture on behalf of undergraduate nursing students. Due to the limited availability of access to experiences at their own school, a collaboration between the nursing school and a hospital enabled nursing students to complete one term of clinical experience in a culturally diverse health care facility. One of the numerous lessons gained was to respect people through a non-judgmental approach. Each of these studies demonstrated that cross-cultural experiences had a positive influence on student knowledge and cultural awareness.

Shustack (2020) introduced an interactive teaching tool to create a global engagement through the use of computer programme Google Earth in the nursing courses. This gives nursing students a richer hands-on experience and a better point of reference when discussing global health issues. Glenn and Claman (2020) felt undergraduate didactic nursing leadership courses lacked experiential opportunities to address working with culturally diverse populations. They used Bafa©, a cross-cultural low-fidelity simulation, to develop critical thinking and emotional intelligence skills in pre-licensure nursing students. Integrating these innovative teaching strategies in the classroom helped increase cultural awareness.

Killion (2001) used photography to teach nursing students different learning styles and a level of awareness about the cultural aspects of health care. The author stated that the colloquial phrase, 'a picture says a thousand words', became true when photos were used to promote understanding of cultural aspects of health. The explanatory caption beneath a photograph encouraged the spectator to see the photograph in a specific way while providing insights and education. The author, on the other hand, pointed out that the images transmitted in the photograph were influenced by the viewer's cultural understanding. As a result, the same image might be interpreted in a variety of ways because each person brings their own background knowledge, perceptions and biases to the table when building knowledge. As a result, instructors must ensure that the intended message is properly delivered to students.

During the pandemic restrictions, the use of video conferencing increased and helped to improve distance education (Kempainen et al., 2012), along with the use of webinars (Leung

et al., 2020). Those teaching approaches were widely utilized when COVID-19 restrictions were in place, and are still flexible teaching options that seem useful today.

In conclusion, the literature in this section demonstrated a variety of strategies utilized to foster and increase cultural awareness among nursing students. When it came to creating culturally conscious learning experiences for students, creativity was crucial and beneficial to acquiring cultural awareness and knowledge. The diversity of the strategies used in each of the reviewed studies demonstrated that cultural awareness need not be taught using a single teaching strategy. In addition, the success of the variety of strategies utilized demonstrated that generating cultural awareness and knowledge should be an integral and essential part of nursing education. The studies reviewed did not result in any negative consequences for students.

At the same time as institutions tried to bridge gaps in understanding, people had preconceptions and biases, perhaps due to cultural or religious upbringing, and they could hold onto barriers to understanding that could seem like a safety net, whether consciously or unconsciously. However, in the nursing profession, medical personnel needed to make a conscious effort to be compassionate and thoughtful when caring for people of different cultural and religious backgrounds. Teaching nurses to make conscious effort to treat all people equally was a prime duty of nursing institutions and educators, in my opinion. All of the studies reviewed for this paper emphasized the importance of this task.

### ***3.5.3 Investigation of Cultural Awareness for Nursing Students***

Investigating and advocating for cultural awareness in nursing education were primary aims of the current study. Educational programmes in the field of nursing might be enhanced, and progress made towards the goal of fostering culturally sensitive practice (Rew et al., 2003). In health care practice, it was considered important to improve the efficiency and quality of care on behalf of diverse populations (Hultsjö et al., 2019). A number of studies investigated cultural awareness in nursing students around the world. For example, studies took place in (alphabetical order by country):

- Korea (Heeseung et al., 2015; Oh et al., 2015)
- Slovenia (Ličen et al., 2021)

- Sweden (Hadziabdic et al., 2016; Hultsjö et al., 2019; Kumlien et al., 2020; Safipour et al., 2016)
- Turkey (İz & Temel, 2016)
- the USA, (Krainovich-Miller et al., 2008; McElroy et al., 2016; Rew et al., 2003, 2014)

To explore the cultural awareness and knowledge of nursing students, Hultsjö et al. (2019) undertook a qualitative study in Sweden through the use of focus groups interviews. The researchers used purposive sampling to recruit participants in the last semester of their baccalaureate nursing degree at two different universities in southern Sweden. A total of 12 nursing students were included in the study. The students were divided into four groups, each consisting of two to six participants. All participants were women born between 1989 and 1994. Ten were born in Sweden, one in Norway and one in England. Two participants had a foreign parent (England, Chile).

The results (Hultsjö et al., 2019) demonstrated that the students had a level of cultural awareness, similar to previous quantitative studies (Cruz et al, 2016). However, they had developed limited cultural awareness during their nursing education. Three themes were identified including a desire to learn, the desire to learn by doing, and the desire to care for people of different cultures. All study participants felt positive about their experience. A limitation of the study was the small number of participants. The size of one group was further limited by students being absent due to illness; meaning, the range of reported experiences was very small. Hultsjö et al. (2019) concluded that further investigations were needed to obtain a more complex and complete picture.

Rew et al. (2003) developed the original CAS questionnaire after recognising the need for a valid and reliable way to measure outcomes. The objective was to promote multicultural awareness among nursing faculty and students in the one of the nursing schools in the USA. Two phases of study were conducted with 72 students in the first phase and 118 students in the second phase. The final scale (CAS questionnaire) consisted of 36 items which were intended to demonstrate the validity and reliability of the scale. A factor analysis revealed a factor

loading of five factors using principal components analysis with Varimax rotation (n=159). However, the limitation of the study was that it used a small sample size for factor analysis, and students belonged to a single university. Therefore findings were not generalizable to all nursing students. It was suggested that an instrument be tested with a larger, more diverse population.

Krainovich-Miller et al. (2008) conducted a pilot study and replicated the second phase of the Rew et al. (2003) study. A cross-sectional design was used and the CAS questionnaire was distributed to 236 nursing students in three nursing programmes at the baccalaureate, masters, and doctoral levels, during their initial and final courses. Cronbach's alpha for the total instrument was 0.869. This indicated the CAS questionnaire had internal consistency. Internal consistency meant that the items proposed to measure the same construct produced similar scores. However, Krainovich-Miller et al. recommended further research in the form of psychometric testing of the CAS.

Hadziabdic et al. (2016) used a Swedish version of the CAS for measuring cultural awareness with 158 Swedish nursing students, and tested for validity and reliability. The results indicated that one item (#13) caused weak reliability and validity and therefore it was removed. The results demonstrated the validity and reliability tests of the CAS-scale for the 35 items was valid and reliable for use with Swedish nursing students.

Safipour et al. (2016) measured cultural awareness among three universities in Southern Sweden. A cross-sectional quantitative study with 215 students participated in this study. The results indicated moderately high cultural awareness among nursing students related to their general education, cognitive awareness, comfort with interaction, clinical practice and patient care. No statistically significant correlation was identified between the socio-demographic factors (sex, age, experience of living abroad). However, being a first-generation immigrant was significantly associated with increased cultural awareness in terms of patient care and clinical issues.

Ličen et al. (2021) used a non-experimental cross-sectional design on a purposive sample of 149 undergraduate nursing students in Slovenia. The results demonstrated that the

nursing students had a moderately high level of cultural awareness for all CAS subscales (M=194.0). However, no statistically significant differences were seen between the student's demographic (gender or age) and other data (year of study or religion) as related to the overall CAS score. The results obtained from the study seemed to be satisfactory but the author stated that the transcultural nursing contents and various strategies for teaching cultural competencies should be carefully evaluated. The study's limitations included the fact that it only looked at one of Slovenia's eight nursing faculties. As a result, generalizing the findings to all nursing students in the country, or elsewhere, was impossible. There was no comparison provided for students' cultural awareness knowledge prior to the study. The authors, at time of publication, had planned to repeat the study within the next five years with both undergraduate and postgraduate nursing programs with a focus on transcultural nursing. They suggested that the Slovenian version of the CAS be psychometrically validated.

Başalan İz and Bayık Temel (2016) undertook a methodological study to analyse psychometric properties of the of the Turkish language version of the cultural awareness scale to determine possible similarities between the compositions of the Turkish version and the original scale. A total of 197 undergraduate nursing students took part in the study. The Turkish version of the scale included 36 items similar to original scale, but under four different subscales unlike the original scale which had five different factors. The scale was found to be highly valid and reliable and could be used in various health care disciplines.

Heeseung et al. (2015) tested the reliability and validity of a Korean version of the Cultural Awareness Scale (K-CAS) on a total of 515 nursing students. The 26 item K-CAS exhibited good reliability. The confirmatory factor analysis also demonstrated the same factor structure as the original CAS.

Similar testing of the original CAS was undertaken by Oh et al. (2015), the translated Korean version CAS-K, to evaluate the cross-cultural applicability and psychometric properties of the CAS-K, specifically its reliability and validity. A convenience sample of 495 nursing students from four levels of nursing education within four universities in the city of Daejeon, South Korea, demonstrated satisfactory validity and reliability.



Kumlien et al. (2020), with a modified version of the CAS, conducted psychometrically testing using cross-sectional data on a total of 191 undergraduate students from different health and social care undergraduate programs in Sweden and Hong Kong. The results demonstrated the modified CAS provided a four-factor measure of cultural awareness. It possessed satisfactory internal consistency. Results also supported the use of the modified CAS as a generic tool to measure cultural awareness among students in higher education within the health and social care fields.

McElroy et al. (2016) used a modified CAS in a cross-sectional descriptive study to assess cultural awareness of registered (RNs), nursing assistants (NAs) and clinical support technicians (CSTs) working at a magnet-designated, academic medical centre in the south-eastern United States. The results demonstrated that the modified scale had good reliability and validity among the student population. Most nursing staff exhibited a moderate to high level of cultural awareness and held positive opinions about nursing leadership and the work environment with regard to cultural issues.

Both qualitative studies (Hultsjö et al., 2019) and quantitative studies (Ličen et al., 2021; McElroy et al., 2016; Safipour et al., 2016) demonstrated that nursing students had moderately high levels of cultural awareness. Studies that utilized the original CAS developed by Rew et al. (2003), including Krainovich-Miller et al. (2008) and Rew et al. (2014), and the modified CAS (Kumlien et al., 2020; McElroy et al., 2016); or translated version of the CAS (İz & Temel, 2016; Heeseung et al., 2015; Hadziabdic et al., 2016; Ličen et al., 2021; Oh et al., 2015; Safipour et al., 2016) were psychometrically tested and the results demonstrated satisfactory reliability and validity. The authors recommended further use with nursing populations and other health care workers.

To the best of this researcher's knowledge, no research of this kind was undertaken in Ireland, which was identified as a gap in the literature. Although the current study focused specifically on death and religion, identifying religion as a cultural component seemed crucial because culture and religion seemed so closely related. Therefore, cultural awareness and knowledge were deemed critical to nursing education in order to improve the efficiency and

quality of care with diverse populations. The next section focused on religion in relation to patients, nurses, and student nurses at the time of death.

### **3.6 Spirituality and Religion in Nursing**

#### ***3.6.1 The Role of Religion and Spirituality in Nursing***

Internationally, chaplaincy was featured as a part of providing religious care, a common health care provision in United States (USA), Australia, United Kingdom (UK), Netherlands and Belgium (Timmins et al., 2016). It was noted that patients' spiritual and psychological needs were sometimes overlooked by health care professionals, especially as patients approaching the end of their lives; health care personnel had historically focused on physical treatment (Warburton & Choudry, 2018). In Turkey, an assessment of oncology patients' spiritual needs and activities demonstrated that all patients (100%) identified issues to address around death before dying (Dedeli et al., 2015).

The chaplain's role involved providing sacramental care of the dying and bereavement support to their families (Dwyer, 2020). The role of a chaplain in Ireland was primarily faith based, providing spiritual care at the time-of-death. However, the role of religion and spirituality in nursing in Ireland seemed an important topic to investigate, both as the researcher is a current resident and nursing practitioner, and given the country's expanding religious and cultural diversity (Fanning, 2007; Healy & Slowey, 2006), ethnicity (Beyers, 2017), increased faith conversion, interfaith marriage, and, inevitably, the need for medical personnel to deal with death (HSE, 2011; Walsh, 2010).

According to the Nursing and Midwifery Board in Ireland (NMBI, 2021) Code of Professional Conduct and Ethics, nurses were obliged to provide care pertaining to a patients' religious and spiritual needs. Quinn and Connolly (2023) stated that the World Health Organization stated it was “the ethical duty of healthcare professionals to alleviate not only physical pain but also spiritual suffering” (p. 2). However, as the number of religions and religious populations in the world grew, and multicultural diversity expanded, health care providers faced increasing challenges as they aimed to provide culturally and religiously appropriate care (Swihart et al., 2021; Wiener et al., 2013).

In 2010 the Health Service Executive (HSE) commissioned an independent team of researchers from St. Angela's College in Sligo, to carry out a project (Glacken, 2016) that sought to explore how tending to patient spirituality and cultural needs was currently practiced within a health care context. The study took place across two sites: Donegal Hospice and Letterkenny General Hospital (LGH). It sought to identify models of good practice in regarding faith, spirituality, culture and healthcare. A number of recommendations were provided to improve the care of patients spiritual and cultural needs. For example:

1. Develop a faith, cultural, and spiritual care strategy to contain a vision, core values, make reference to relevant policy and legislation, and to implement priorities and time lines.
2. Construct a vision for the future of faith, cultural, and spiritual care at local level including all of the care settings for all populations that the HSE catered to, and many more (Glacken, 2016).

In Ireland, it was said that nurses did not publicly address religious issues or give them priority when providing nursing care, despite the fact that religious and spiritual matters seemed extremely important to consider (Keenan & MacDermott, 2016; Thompson, 2021). It seemed possible that nurses were ashamed to address religious issues because religion was considered outdated in a secular environment (Thompson, 2021).

Interestingly, Irish churches were often built within hospital grounds, a testament to the close relationship between the church and the healthcare provider in the past (Swift, 2018). At the same time, the relationship between established churches and healthcare providers, and the contribution in particular of healthcare chaplaincy, remained very prominent in the Republic of Ireland (Swift, 2018). To investigate current approaches to, and facilities for, providing spiritual care in Ireland, Timmins et al. (2017) conducted a study in 2005:

- The first phase involved an online survey of 217 hospital nursing directors. The objective was to learn about their current service delivery, to learn whether and how they delivered religious or spiritual services to patients.
- The second phase involved an audit of 48 public hospital websites followed by two surveys: a 28-item online survey (using Survey Monkey) explored views on spiritual care, current

hospital spiritual care policy, the resources currently available in hospitals, and the nursing directors' attitudes towards nurses' provision of spiritual care.

- A shorter 15-item version was used to explore the availability of spiritual care resources as identified by hospital websites.

The data demonstrated that spiritual care for patients was an important part of hospital policy, and regarded as the responsibility of the entire healthcare team (Timmins et al., 2017). The hospital chaplain bore particular responsibility. Although the study seemed ambitious, aiming to capture the majority of the nursing directors at public hospitals in Ireland, the response rate was low (15.7%, n=34). Of the 34 nursing directors who responded, 27 (79.4%) reported that providing religious care was a component of hospital policy. As well, 44.1% of the nursing directors indicated they received no training in relation to spiritual care. The author stated that, despite the low number of nursing directors responding, it was a fair representation of a significant proportion of national sites.

According to Hawthorne and Gordon (2020) there was a level of invisibility with regard to spiritual nursing care in clinical practice due to some confusion differentiating between spirituality and religion (Mystakidou et al., 2008) and difficulty dealing with secular institutions, such as the National Health Service in the UK (Dudhwala, 2009). For some people, religion was considered an expression of their spirituality (Hawthorne & Gordon, 2020). For others, spirituality was not associated with a religion (Ramezani et al 2014). Therefore, this area called for nurses to be more open to the needs of the people with both religious and spiritual beliefs (Thompson, 2021).

Garrett (2021) addressed several complexities around spirituality, religion and health care. She argued that to provide holistic care, nurses need not adopt spiritual, mystical, or religious frameworks. Garrett felt that religion, spiritual, consciousness, or faith-based approaches might be resistant to the long-standing development of a service that supports secular and agnostic health care. Further, Garrett said biomedical science would be considered a flawed reductionist approach to end-of-life care in situations where people felt new age spiritualism and alternative medicine were appropriate care. Yet, moving away from science

and returning to a spiritual base for care was regressive, according to Garrett. She felt that this dimension of care was the opposite of evidence-based practice, and discussed the famous theorists Jean Watson, Barbara Dossey, Martha Rogers, and Margaret Newman (pp. 1-9).

Leininger (2008) suggested biomedical science was treatment for an illness, while additional care of a person could be met through cultural and spiritual needs. Science helped to cure; culture and religion helped to provide other forms of care. Therefore, separating the two led to flawed care, according to Leininger. When culturally appropriate care was not delivered, studies demonstrated that a negative trajectory of events could occur, ranging from simple miscommunication to life threatening incidents (Meddings & Haith-Cooper, 2008; Reitmanova & Gustafson, 2008). Quinn and Connolly also referenced growing evidence of “the benefits of providing spiritual care at the end of life on clinical outcomes” (p. 1).

In Ireland, religious and spiritual care had received increased recognition in recent decades according to a report produced in 2011 by the Health Services Executive (HSE) titled *A Question of Faith: The Relevance of Faith and Spirituality in Health Care* (Glacken, 2016). Quinn and Connolly (2023) outlined the end-of-life situation succinctly:

Patients at the end-of-life may suffer spiritual distress, which can include deep inner questioning and loss of meaning and purpose in life. ... It is then becoming clear that a healthcare approach that mainly focuses on alleviating physical pain is no longer adequate and that responding to people with palliative care needs inevitably requires engaging with the spiritual dimension of each person. ... While we have come a long way in easing physical discomfort and improving physical wellbeing of patients at the end-stage of life, spiritual care is still the most neglected component of palliative care. (Quinn & Connolly, 2023, pp. 1-2)

The need for knowledge and cultural awareness of religion in health care was evident. As stated earlier, according to the World Population Review (WPR, 2023b), in 2020 about 85% of the world’s people identified with a religion, whether practising or not. The difficulty was not with meeting the demands of the patients; rather, it was with the poor levels of education and training received by care givers in professional educational programs (HSE, 2011; Walsh, 2010). Radford (2008) also reported there was inadequate training of professionals for providing care to people of a variety of religions. Timmins (2013) suggested specific religious and spiritual training was urgently required.

### ***3.6.2 Spiritual Care and Nursing Education***

Across Europe, there was a great deal of inconsistency with regard to how the topic of spiritual or cultural care was taught within nursing education (Ross et al., 2014). According to Thompson (2021), Ms. Kathleen Neenan, Chair of the Trinity College, Dublin (TCD), stated spiritual care (which included religion) must be at the centre of nurse education and training because it recognised and responded to the human spirit facing illness and death. However, nurses were often unable to recognise patient's religious and spiritual needs. Therefore, a new international educational programme, called the EPICC Project (2016-2019) was launched in November 2016 co-funded by the European Union Erasmus+ Programme with the support of the European Commission (EPICC Network, n.d.). EPICC was the acronym for Enhancing Nurses and Midwives Competence in Providing Spiritual Care Through Innovative Education and Compassionate Care. According to the EPICC website (n.d.), the Project involved five partner universities, participants in 16 countries, and events in the UK, Malta and the Netherlands. The objective was to enhance nursing students' knowledge with regard to how to address patient needs for a religious or spiritual approach to caregiving. The project successfully concluded at the end of August 2019 and a report was generated in October 2020. (EPICC Network, n.d.; Thompson, 2021).

Thus 'religion as part of culture' served as one among many ways to express and experience spirituality (Edara, 2017). Linda et al. (2020) stated, just as other aspects of care are met, religious and spiritual needs are also to be met. Hence, nursing instruction must emphasize the importance of cultural awareness and knowledge in nursing care (Abbasi et al., 2014). Identifying multicultural religious beliefs and practises and incorporating them into a plan of care, along with all the other needs of a patient, would fulfil a nurses' professional obligation to provide person-centred, holistic care to patients near or at the time of death (Abbasi et al., 2014; Dossey, 2016; Hawthorne & Gordon, 2020; Keenan & Kirwan, 2018; LeDoux et al., 2019). This indicated that religious and cultural education was recognised as an important construct within nursing education, and that this area required more attention.

### ***3.6.3 Anxiety, Fear, Death and Religion***

Humans developed a variety of world views and religions to cope with the fear of death. Several researchers attempted to investigate whether religion was linked to fear of death. There were reports of negative associations as well as positive relationships (Bassett & Bussard, 2021). There findings were associated with no ties and even curvilinear associations (Wink & Scott, 2005).

Bassett and Bussard (2021) conducted a study with 328 students enrolled in introductory psychology classes at a small state-sponsored university in the south-eastern United States. The researchers examined the relationships among religiosity, morality and fear of death. They found religion was both a source of comfort and worry for people who were concerned about dying. These findings indicated that some components of religion may help people cope with a fear of death while other components of religion can aggravate fears and anxiety related to dying.

Rababa et al. (2021) conducted a descriptive study with 248 community dwelling older adults aged 60 to 75 in the country of Jordan. The objective was to examine the association between death anxiety, religious coping skills, and spiritual well-being during the COVID-19 pandemic. Rababa et al. found high levels of anxiety and low levels of coping skills. Religious and spiritual levels were both indicated. According to the study results, older female adults had high religious coping skills and low anxiety levels as compared to males. Widowed older adults had lower anxiety than married older adults. The results of the research could be questioned as there could have been some miscommunication due to data being self-reported and collected over the phone. The study used a convenience sampling technique, which may have limited the external validity and threatened the generalizability of the results.

Ellis et al. (2013) conducted a study with undergraduate college students who were American Christians, Catholics, or Protestants; Malaysian Buddhists and Hindus; and Malaysian and Turkish Muslims. A total of 1291 respondents from seven universities in United States (USA) participated, along with 2394 respondents from two universities in Malaysia, and 265 respondents from one university in Turkey. Overall, the patterns in all three countries were

similar. “The lowest fear was expressed by those who did not consider themselves to be members of any organised religion” (p. 188). Those who considered themselves most religious expressed greater fear, than those who were relatively nonreligious, regardless of specific religion. Other findings included the fact that females were on average more religious and afraid of death than males, and Muslims were significantly more frightened of death than members of any other major religion.

Similarly, death anxiety was another multifaceted concept, in that differences existed between the different religious groups with regard to such anxiety. Bala and Maheshwari (2018) defined death anxiety as a continuous, abnormal, and panicked fear of dying. The cause of death anxiety did not solely depend on religion itself, but the personal beliefs of each individual. To explain this, terror management theory (Solomon et al., 1991; Vail et al., 2010) was utilized by social psychology researchers (Burke et al., 2010; Tam, 2013). Terror management theory (TMT) was a dual-defence model that explained how people protected themselves against concerns about death (mortality salience). The specific manner in which people responded was dependent on whether the concerns were conscious or unconscious.

According to Solomon et al. (1991), both humans and animals had an instinctive urge for self-preservation. Although we cannot know what most animals think about death, humans evolved advanced and complex cognitive powers that allowed them to not only be self-aware but also to anticipate future events. As a result, the conflict between the two feelings, the desire to preserve one's identity and the realization that death was certain and unpredictable, can cause anxiety and panic whenever situations emerge that remind individuals of their mortality. This might indicate religion, as a cultural variable, was developed by humankind in numerous contexts in order to assuage fears of death through the creation of life-after-death paradigms.

For example, in the Indian religion, Maheshwari and Mukherjee (2019) investigated the efficacy of terror management theory in the context of an indigenous Indian religious fair known as Magh Mela. The name Magh denoted Hindu calendar name of the month within which the fair usually was held, in January, and Mela in Hindi meant fair. Magh Mela, an annual religious fair, had traditionally been held at an Indian city called Allahabad. Allahabad was



situated at the confluence of two rivers, Ganga and Yamuna. Those were the two rivers believed to be the most holy in India. According to Hindu mythology, the culmination point of these two holy rivers, along with the holy and mythical third river Saraswati, was regarded as one of the holiest places on earth. This confluence was called Sangam.

The study (Maheshwari & Mukherjee, 2019) examined how elderly Hindus dealt with death anxiety by participating in the Magh Mela and doing Kalpvas. Doing Kalpvas meant an individual would stay at the bank of Sangam and participate in the religious rituals for one month. The rituals consisted of bathing in the Ganges, worshipping (puja), hearing religious discourses by saints, and attending performances of the Hindu epics. These were the daily activities of Kalpvasis (Hindustan Times, 2023).

Maheshwari and Mukherjee (2019) investigated the role of social detachment and self-esteem when coping with the fear of death. Two field studies were conducted. In the first study, a field trial took place with 150 Kalpvasis (Kalpvas practitioners). This study confirmed the importance of social detachment as a coping technique for death anxiety. A second field experiment with 62 Kalpvasis participants validated the first study's findings. Kalpvas had a significant positive impact on the fear of death, demonstrating the value of those specific religious activities in coping with death-related anxiety.

Similarly, Feng et al. (2021) conducted a cross sectional study among 586 gynaecological cancer patients in West China. The study took place from February 2020 to July 2020. Patients were enrolled in the study if they had been diagnosed with gynaecological cancer, including ovarian cancer, cervical cancer, endometrial cancer, a trophoblastic tumour (malignant), fallopian tube cancer, etc., were aged 18 years of age or older, and were able to understand and answer relevant questions. Patients were excluded if they refused to participate or had either a cognitive impairment or other severe organic diseases. Feng et al. suggested that patients with less death anxiety had a higher sense of spiritual well-being. Swihart et al. (2021) conducted a similar study that also suggested spiritual and religious care could be important elements for reducing anxiety.

Morris and McAdie (2009) employed a survey design to explore the general sense of wellbeing and fear of death between Christians, Muslims, and non-religious people. Religious individuals (both Christians and Muslims) rated feelings of wellbeing much higher than non-religious participants. Christians had much lower fear of death than non-religious and Muslim people, whereas Muslims had significantly more death-related anxiety than non-religious people. It was found that Christians created themes for the afterlife, such as having eternal life. In contrast, Muslims expressed uncertainty about their expectations for the afterlife. Some Muslims were confused as to whether they were good or bad, and hence unsure what their ultimate fate would be, heaven or hell.

Morris and McAdie (2009) found that fear of one's status in the afterlife played a contributing role in death-related anxiety. If a person believed in an afterlife, the uncertainty of reward or punishment was a great cause of death anxiety while those who did not believe in an afterlife did not suffer that level of death anxiety. Soleimani et al. (2018) determined the relationship between death anxiety and spiritual well-being was non-significant.

It was concluded from the literature reviewed in this section, that anxiety was a multifaceted concept and differences could exist between the different religious groups as to their levels of anxiety and the causes of their anxiety. Although the use of terror management theory could help explain the ubiquity of religion, the cause of death anxiety did not solely depend on religion itself, but also on the personal beliefs of each individual.

### ***3.6.4 Decision-making, Death and Religion***

Religion and cultural practices impacted decision-making, especially at death (Wiener et al., 2013). In certain religions, the family made important decisions at the end of a persons' life. In other religions, or in the case of non-religious persons, the individual, the extended family, or a member of the community could make end-of-life decisions (Weiner et al., 2013). In the UK, where there were many minority communities, a qualitative study involved five focus groups and 29 in-depth semi-structured interviews with 55 south Asians between age 52 and age 78 living in East London. They were recruited to the study through 11 local community organisations based in the East London boroughs of Tower Hamlets, Hackney or Newham.

Members of these organisations were eligible to participate if they self-classified as being of South Asian ethnicity; were aged 50 years or over; could speak Tamil, Malayan, Telugu, Hindi, Urdu, Gujarati, Bengali or English; were able to give written informed consent; and had not been bereaved in the previous six months. The study focused on the attitudes and expectations around discussions on death and dying. The findings indicated participants avoided discussions about death as a cultural norm. They did not expect to have discussions about their death, and family members were not to assume any involvement in decision-making (Ohr et al., 2017; Venkatasalu et al., 2013). The researcher in the current study recognized avoidance of discussions as a cultural norm was common in the Indian Hindu religion where an older adult or eldest son made end-of-life decisions. However, decisions were more often left to the time-of-death (Thrane, 2010).

The sensitive nature of decision making was an important facet for nurses to be aware of, as this could help nurses be mindful of whom to approach and when to approach a family member on discussions around death. The United Kingdom's government stated that all patients reaching the end of their lives should have access to personalised care tailored to their own preferences, beliefs, and spiritual needs (Choudry et al., 2018). However, in practise this may not always be achieved.

Similarly, in the US, where the model of health care valued autonomy in medical decision-making, religion strongly influenced patient reactions to serious illnesses. According to Searight and Gafford (2005), decisions about the end-of-life, truth-telling rather than concealing the truth from the patient seemed to be a common practice because only a third of the population was comprised of ethnic minority groups. Olsen et al. (2010) spoke of palliative sedation. The person receiving aggressive treatments may undergo severe pain from a disease condition and may require pain relief; the goal was to provide relief in an ethically acceptable way. However, in Hindu religion, the family may not approve of sedation because suffering can be a positive experience leading to good Karma (Trane, 2010). The concept of suffering and good Karma may be surprising to Western nurses, as a primary responsibility would seem to be to relieve suffering and allow for a peaceful death. However, clearly it seemed of great

importance that nurses inquire about the religious beliefs and practices of an individual, and respect patient and family decisions at the time-of-death, regardless of whether such practices seem perplexing.

Religion (Morris & McAdie, 2009) and gender (Ellis et al., 2013) could each be factors influencing anxiety at the end-of-life. Mazanec and Tyler (2003) discussed how ethnicity, age and religion influenced end-of-life decisions. Many studies determined that cultural values and beliefs impacted the perceptions of death, dying and decision-making (Johnson et al., 2009; Schweda et al., 2017; Searight & Gafford, 2005).

McCarthy et al. (2013) suggested culture and religion were closely linked to end-of-life issues and care. According to the literature reviewed herein, it was evident that religion was one of the cultural variants with a significant impact on decision-making. This indicated the importance of nurses having an awareness of various beliefs and practices in order that individualised care could be planned for ahead of time. However, not all people believed in God or found traditional religious customs satisfying; they may have sought, or believed they had found answers elsewhere.

Black (2007) conducted a case study with two non-religious residents of a long-term nursing facility and two non-religious staff members at the same facility. A subset of an eight-site, four-year research study that explored the cultural construction of dying and death in long-term facilities. While conducting open-ended interviews with residents and staff members, it was found out that four individuals who described themselves as non-religious responded to the queries about the meaning of suffering and death while working and living in a long-term care facility. According to the non-religious residents and staff, the patients found significance in systems of personal meaning developed through happy life experiences, even though they currently were uncertain about suffering and death. Popular psychology, talk shows on television, movies, and superstitions about dreams all appealed to these patients and helped them make decisions (Black, 2007). It became evident that there were many factors which could influence a person's life apart from religion, especially in their last stages of life. Clearly, what may be an important ritual for one person at the end of life, may not be the same for another.

### ***3.6.5 Nurses' Use of Religion for Coping***

An exploratory qualitative study explored the significance of religion and spirituality in Ugandan nurses' working lives and coping methods (Bakibinga et al., 2014). According to the authors, nursing in Uganda was a high-stress, low-paying profession with high turnover rates; nonetheless, some nurses stayed on the job and thrived. Due to weak coping abilities, others changed occupations. In-depth interviews were conducted with 15 female nurses, recruited through purposive and snowball sampling techniques. The snowball technique was a limitation of the study, as those nurses referring to each other could have had similar belief systems. However, they worked in faith-based and non-faith-based clinics. The study indicated that those with religious convictions felt those convictions had a positive impact on their own performance, allowing them to find purpose in the face of adversity.

In a study in Ireland, Keenan and MacDermott (2016) examined how nurses personally used spirituality. The participants were registered nurses who had worked with a child with an intellectual disability who had died in the previous seven years. This qualitative descriptive study was comprised of in-depth interviews involving eight female nurses in one health service facility. All the volunteers shared the same religious beliefs. God and spirituality were referenced by 80% (p. 4), who felt their faith was consistent. Spiritual care was considered a core component of nursing by this group. Nurses stated spirituality was essential in their lives as they dealt with grief, loss, and the dying. Spirituality, according to the authors, was not just a reactionary tactic in a moment of need, but one that had significant meaning and value for the nurses, integrated into their holistic nursing care. One subtheme highlighted in this study was prayer and religion. Religion was an important element of the participants' everyday meaning, life, and practice. Faith was not only consistent but also a place from which they drew strength during the child's passing, as well as after the child's death. A limitation of this very small study was that the findings could not be generalized.

### ***3.6.6 Conclusions***

The literature review, thus far, suggested religion, or the lack of a specific religion, was a significant cultural characteristic feature to be considered during end-of-life care. Religion

had the potential to guide and bring peace to a person at the end of their life. A belief in a God or Gods, or other form of spirituality, could add meaning or purpose to death, or help reduce fear and anxiety, and make end-of-life decision-making more straightforward. At the same time, uncertainty about one's status in the religious afterlife also caused anxiety for some believers.

Although the World Population Review (WPR, 2023b) stated 85% of the world population identified with a religion, there was no information with regard to whether they practiced religion. Despite the relevance of religion to many, about 1.2 billion people did not identify with a religion in 2020. They identified as Atheists, agnostics, or secular individuals. In fact, the non-religious group was the third largest group of people in the world, after Christians and Muslims. The statistics were similar in Ireland with the predominant groups being Catholic, unaffiliated, and a growing Muslim immigrant population (WPR 2023a). Affiliates of Hinduism were the fourth largest group in the world and one of several smaller groups in Ireland.

In response to the discussion of Garrett (2021) in particular, it seemed to this researcher that nursing care did not require a change in approach, but rather there was a need to respect an individual's choice by addressing all aspects of care, including the physical, mental, social and spiritual aspects combined as holistic care. In anthropology, holism indicated the whole was greater than the sum of its parts, and included the human connection to the environment and society.

Humans who grew and lived together were inevitably shaped by a culture, as they would not be had they lived in isolation. The spiritual needs of a person were an aspect of culture. Therefore, spiritual care seemed more often useful than religion to a health care practitioner. When spirituality was not conflated with religion, spiritual care could be rendered to a broader range of patients with different world views. The literature indicated that nurses had to be equally sensitive to the needs of the non-religious people by identifying their specific needs at the time of death. Religion influenced culture and culture influenced religion, and often differentiating between the two could be difficult. Because a significant majority of the world's

population identified with a religion, cultural awareness and knowledge in the nursing profession seemed critical.

### **3.7 Death**

#### ***3.7.1 A Good Death***

There were 31,765 deaths in Ireland in 2020 according to the Central Statistics Office of Ireland, or CSO (2020). This figure was 2.0% higher than the prior year, 2019 (31,134 deaths). The number of births dropped in the year 2020 as well, to 55,959 as compared to 59,796 in 2019 (CSO, 2020). An inquiry on dying, death and bereavement in Ireland conducted by the Irish Hospice Foundation (2020a) sought to learn what the people of Ireland thought was needed for a good death and for healthy grieving. About 3000 people responded that they preferred to live and die in an Ireland where death was openly discussed. Although death was a complicated subject, the evidence demonstrated a public interest in an open discussion about death as a societal issue in Ireland.

The Irish Hospice Foundation collected data on Irish attitudes toward death, dying, and grief in 2004, 2014 and 2020. The first national survey took place in 2004 (Weafer, 2004) and it captured, for the first time, the views of the Irish public on diverse issues related to death and dying. The second study involved 891 respondents who were asked if death was discussed enough and if they felt safe discussing it. According to Weafer, nearly six out of ten Irish residents believed that there wasn't enough debate about death and dying in Irish society. The percentage of people who held this position increased by 6% in the ten years between completion of the studies, from 51% to 57%. However, more than a third (35%) of respondents believed that the level of dialogue was already appropriate. A total of 6% believed that there was too much discussion (Weafer, 2004). According to the IHF, the percentage of people who felt more discussion on death and dying was needed had increased from 30% (2004) to 35% (2014) to 47% in 2020 (IHF, 2020a, p. 5). It seemed likely, they stated, that the COVID-19 pandemic had an impact on attitudes of the people toward death and dying, and potentially brought about more discussions on those topics. It seemed clear that there was a growing desire among the general public to address and discuss death and dying more openly.

According to IHF (2020a), males were more likely to feel that death and dying were discussed sufficiently discussed, while females were more likely to say it was not discussed enough. Those who were under age 25 were more likely to be of the opinion that death and dying was discussed too much (IHF, 2020a). Further, while 68% of people believed the COVID-19 pandemic had made Irish society rethink the way it dealt with death and bereavement, 89% of the people felt being together with extended family and friends was a key part of grieving process (IHF, 2020a). It seemed clear that there was a desire among the general public to address and discuss death and dying openly. However, it was unclear whether the persons who took part in the survey were all of Irish ancestry and of the Christian religions, because some religions (Muslims, Hindus), in this researchers' experience, were not as open to discussions of death.

Tayeb et al. (2010) conducted a mixed method study engaging 284 Muslims of different nationalities and careers, living in Western communities. One of the three main domains explored was faith and belief. However, the study was limited in that the questionnaire used a yes or no question format rather than a Likert scale, which could have allowed for greater nuances and insight. The inquiry focused on perspectives with regard to what it meant to experience a good death. Patient appearance and hygiene were found to be of great importance to Muslims at the time of death (Tayeb et al., 2010). The authors suggested it might be useful to conduct further studies to assess the validity of using a different questionnaire for this topic. Nurses and health care providers must understand their patient's preferences and respect their needs regardless of what the health care provider believes themselves.

It was important to some people, in order to experience a good death, that one must be informed and prepared. This researcher can attest to Hindu tradition: a decent death should occur spontaneously and at the appropriate moment. According to Firth (2005), hastening death at the appropriate time was a deeply held belief to avoid further pain and provide a comparatively pleasant death experience. A decent death, according to Van der Geest (2004), was one in which a person had completed their goals and made peace with others. There were people who died in the service of their country or religion in a form of death known as a



martyrdom (Rosenblatt, 2008). End-of-life ideological differences could have a significant impact on how a person lived and acted, and the decisions they made at various stages in their lives. No matter what religion someone practiced, all religions aimed for their own interpretation of a good death. Therefore, it seemed essential that nurses had an understanding of different religious practices in this context.

### ***3.7.2 Variations in Beliefs and Conceptions About Death***

According to the literature, each of the three religions reviewed for the current study (Christianity, Islam, and Hinduism) believed death was God's will. Before the person's death, in Orthodox Christian religious practice, a clerical officiant anointed the sick with holy oils. A Hindu priest tied a thread around the neck and wrist of the patient and prayed by sprinkling the Ganges water or by placing a basil leaf on the tongue of a person (Thrane, 2010). In the Muslim religion, a person had to be prepared all the time for death, which is why prayers were offered frequently during the day and family members say special prayers as death approached (HSE, 2023). Fasting and pilgrimages were practised in all three religions. Knowing all these differences existed among the different religious groups was important so nurses could plan care accordingly.

In Hinduism, people believed in spiritual suffering and Karma. Hindus may wish to endure suffering in order to diminish or alleviate past Karma. This involved fasting, doing penance, such as intense prayer or worship, or enduring pain even when medication was available (Thrane, 2010). Other forms of atoning for evil thoughts or deeds in Hinduism and Christianity included confession to a clerical officiant, and repentance either in public or in private. In the Hindu religion, sacrifices were made, such as ceremonially shaving the head or giving to the poor. Those activities were hugely important for an individual's spiritual well-being and for receiving moksha (Thrane, 2010), a karmic release from the cycle of rebirth.

Some Muslims believed that suffering was a form of atonement for one's misdeeds. This interpretation aided patients and their families in coping with illnesses. It did not, however, negate the importance of the nurse making every effort to alleviate a patient's pain. Despite the fact that devotees of Islam sought treatment, and there was a dearth of religious evidence to

support this point of view, nurses must respect a wish to experience suffering because patients had the full right to accept or decline medical help (Tayeb et al., 2010). Therefore, nurses having knowledge and awareness of the different beliefs of each religion can understand and assist with compassionate care planning to ensure the individual patient needs were met. A few additional studies explored how consciousness of death influenced supernatural or religious beliefs, and how people's existing beliefs determined which god(s), if any, were eligible to serve at the time of death, such as Landau et al. (2004) and Vail et al. (2010), however further exploration seemed beyond the needs of the current study.

In the Hindu and Islamic religions, decisions regarding death and end-of-life care were usually made by the most senior member of the family or the eldest son. In the Hindu religion, speaking truth to a person about their death and diagnosis was considered destroying the patients feeling of hope (Srivastava, 2016; Thrane, 2010) and so the family may not be willing to share bad news (Griffiths et al., 2021). Decisions were made by the family, rather than the patient in the Hindu and Islamic religions. However, this was not the case for Catholics and Protestants in the Christian religion, especially in the Western countries. If a person were an adult, he/she was allowed to make decisions alone for themselves, although family may be there. This was important for the nurses to know, especially when gaining a consent regarding life choices, in order that the right people are contacted.

Understanding these differences existed, could help nurses approach the right people about the choices that needed to be made prior to or at the time-of-death. However, culture (ethnicity) must also be identified, as it could be related to religion. Having an awareness of the rituals that a person associated with at the end of their life could help nurses plan care in such a way that the religious needs of the person were met prior to saying goodbye to their loved ones. This could not only help the person die peacefully, but the family could be better able to accept their passing when the needs were addressed in a manner that was culturally appropriate.

### ***3.7.3 Care of the Dead: Rituals***

Discussions on death and dying could be difficult; adding to this complexity were the encounters with religious minorities (Kristiansen & Sheikh, 2012). Where religious beliefs,

attitudes, and rituals varied greatly across religions and cultures, they added to the complexity of the dying process (El Gindy, 2013). However, rituals proved to be effective in assisting people in coping with and even celebrating a death or the impending death of a loved one (Roberson et al., 2018).

Communities may share key facets of religion, such as symbols, social events, and rituals when preparing for the death or after the death of a loved one. People, food, and prayer were frequently present at formal celebrations or memorials honouring a person's life and/or death. Death itself, however, was perceived and celebrated differently in different religions and cultures (Roberson et al., 2018). Regardless of one's feelings about death and dying, care can be offered in a variety of settings, including the patient's home, care homes, hospices, or hospitals, depending on the patient's needs and preferences (NHS, 2021).

Hindus preferred to die at home (Thrane, 2010). Similarly, in Ireland, a national survey concluded 22% of people wished to die at home (IHF, 2016). However, palliative and end-of-life care, and the recent COVID-19 pandemic, led an increased number of patients to die in hospitals (Choudry et al., 2018) and nursing homes (Ng et al., 2016). This placed a huge responsibility on nurses in terms of cultural awareness. They had tremendous sensitivity to cultural and religious distinctions when patients died (Shanmugasundaram et al., 2010). Hence, nursing education around religious death rituals seemed essential. Historically many people died at home and consideration of the beliefs and religious practices were easy to consider. Religious issues arose at the end-of-life, and patients may prefer to re-examine and reaffirm their beliefs in order to die with hope.

Shanmugasundaram et al. (2010) conducted a survey of Hindus in Australia, examining the cultural characteristics of end-of-life care among Hindus living outside of India. The goal of their study was to find out how families of terminally sick Indian patients felt at that time of death. It was understood that not all of the preferred practices could be accommodated in care settings. However, it was believed that a better understanding of Hindu philosophy could lead nurses to create a more compassionate environment for dying patients and their families. This

indicated that knowing and facilitating all religious practices may not be possible, however, having an understanding was likely to lead to better care.

Hyder (2003) determined that unnecessary touching (of non-related people of opposite sex) should be avoided in Muslim ritual. A same-sex health care worker was preferred as much as possible. The left hand was also considered unclean, so the right hand should be used to administer medication and provide treatment. Modesty in attire and privacy were of utmost importance for female patients where, in some cases, a close family member of the same sex could assist in washing the body. Prayers were performed either in sitting or lying positions, and it was important that the patient was not disturbed during this time (Charles & Daroszewski, 2011; Hyder, 2003; Khalid, 2019).

Similarly, Mutair et al. (2014) discussed a case in which non-Saudi nurses provided care for Saudi nurses in order to improve their (non-Saudi) understanding of culturally competent care from a Saudi perspective. This article helped increase awareness for healthcare professionals caring for Arab and Muslim patients outside of their homelands. Oakley et al. (2019) investigated the lived experiences of non-Muslim expatriate nurses providing end of life care for Muslim patients in their home country. They authors found that expatriate nurses saw themselves as powerless patient advocates, that they were hampered by the nurse-patient-family-physician quadriad structure, language, and differing ideas about death, and that providing culturally safe care was emotionally difficult. The nurses felt emotionally distressed when unable to provide cultural practices that were important to the patient and family, which could lead to increased burnout (Oakley et al., 2019).

When discussing case studies of contemporary grief rituals in North America, Wood and Rowatt (2006) explained how the priest, rituals, and the role of hope, might assist the bereaved through the grief process. Along with increasing urbanisation and declining church affiliations, bereavement support was changing. Grief rituals among Christians varied between Catholics and Protestants. For the dying, rituals such as absolution, sacrament for the sick, anointing with oil, and prayers affirmed the presence of a loving God and recognised a person as part of a community. The central focus of a Christian funeral was the belief in the resurrection

of the body when the Messiah came, and the hope that life did not end with the physical mortality. The clergy could provide hope and assist the bereaved through their grief process. On investigating who would be the most likely to provide spiritual care referrals, nurses, rather than chaplains, were the most likely source of information, especially with regard to patient or family concerns involving loss or death (Galek et al., 2007).

It was also noteworthy that relatives and family members felt more distressed after a death of a loved one, and more so if it was a sudden or traumatic death. Chapple et al. (2011) conducted interviews with 40 people bereaved due to a traumatic death in UK (murder, manslaughter, car crash, train accident, fire, bomb explosion, industrial explosion, or pedestrian incident). Participants ranged in age from 27 to 70 years old, and about 2/3 were women. Chapple et al.'s study used a qualitative, interpretive, narrative approach with 40 bereaved people. Interviews lasted two to four hours. The authors did not specify precisely how many people responded in different ways, but a few people reported, after the death, they felt angry or cynical about religion. Others turned to spirituality or religion for help at that time. A limitation of the study was that the interviews were conducted several years after a person had died, and remembering distant events could be prone toward bias and errors. In addition, some people commented on how their religious convictions and views had changed over time. More research with a different sample of people reporting their experiences shortly after the end-of-life timeframe would be beneficial to investigating the role of religion after a sudden and/or traumatic death.

Pastoral care may be required for people who are dying or mourning, as medical experts may be unable to assist those who were concerned about the ultimate purpose of life (Kellehear, 2009). Bereavement often represents a time to reflect on social and spiritual relationships. According to Gire (2014) Hindu end-of-life rituals, death, dying and the rationale for suffering could be perplexing to the Western perspective. Family and community interconnectedness, Karma, and reincarnation were considered major concepts of Hinduism. Karma was a combination of cosmic and moral cause and effect that could cross lifetimes and life lessons learnt for spiritual growth. The belief in reincarnation could provide great comfort to the dying

and their families because they believed their loved one would be reborn into a new life and that they were not gone forever. They also believed that enduring physical suffering could lead to spiritual growth and a more fortunate rebirth. The last goodbye to a person through a funeral was considered a celebration of a rite of passage for both the deceased and the living (Gire, 2014). The farewell rituals provided an avenue through which the bereaved dealt with grief and guilt. Thus, end-of-life ritual included psychologically healthy mourning practices for the bereaved. Hindus cremate the body of the dead, except for the children (Thrane, 2010), while Christianity and Islam believe in burying or cremating the dead.

Religion played a vital role in how people reacted to death. Although grief was shared among all the religious groups during end-of-life care, how each religious group reacted to grief differed. Mourning occurred at different stages, and the time taken to mourn also differed from one religion to another. Customs that were practised after the death of a person also varied. Some rituals were practised or observed for a few days after death while some religions were completed with the funeral (MacMillen, 2015). Some host memorials at a later date. Although differences existed between religions, every religion aimed for a good death.

COVID-19 caused 688,115,875 reported deaths around the world (Worldometer, 2023) in recent years, one of reasons being religious gatherings (Gaughan et al., 2021; Wildman et al., 2020). Frayer et al. (2020) reported that the coronavirus required changing death rituals to follow the World Health Organization guidelines on funeral services. For example, in Iraq there were delays for some burials. In India, the Ganges was empty due to lock-down restrictions, and funerals were limited to 20 or fewer people. From the USA, a friend reported that indoor gatherings were prohibited or restricted, and military service members could not receive military 'honors' during funeral services. However, this ritual went back to normal once the pandemic abated (S. Galindo, personal communication, May 1, 2023). It seemed likely that death rituals in other cultures returned to normal post-pandemic, too.

### **3.7.4 Conclusion**

Considering a person's cultural, religious and spiritual needs was important in the context of nursing education in Ireland in order to ensure appropriate patient care in the end-

of-life stages. The literature review illustrated the need for nursing students to be aware of the cultural, religious and spiritual needs of the patient. Cultural concepts promoted religious reconciliation through multicultural coexistence, and promoted good governance in global public affairs in terms of mutual respect and cultural consultation (Yang & Li, 2018). Specifically, religion and culture were fundamental to many persons identities. When a person was dying or about to die, practicing their religion might provide great comfort (NHS, 2016), as might embracing their spirituality.

The HSE Intercultural Guide, a document produced by HSE, provided information regarding different rituals practised by different religions at the time of death (HSE, 2021). Knowledge about various religious beliefs was shown to minimize the incidence of poor patient outcomes, to increase overall patient satisfaction, and to improve care quality while utilizing best practices. However, because cultural traditions were dynamic and constantly changing, asking a patient and their family members about their immediate preferences and beliefs (without generalising them) could help nurses understand patient needs and reduce the likelihood of stereotyping, facilitating person-centred holistic care (Wiener et al., 2012).

### **3.8 Nursing Education Challenges, a Critical Analysis**

The challenges nursing students potentially faced in both classroom and clinical settings were critically analysed in the current study. Nurses spent more time with patients than any other health care professional, and most nurses provided care to dying patients at some point (McCall, 2018). Knowledge, attitudes and skills were required for competent care (Creech et al., 2017). However, students faced many challenges due to a lack of education and training about dying patient care (Brown, 2019; Lippe et al., 2017).

A multi-site feasibility study by Lippe et al. (2017) was conducted within three accredited nursing universities in an unnamed southern state in the USA. The End-of-Life Nursing Education Consortium (ELNEC) curriculum served as the standard of measurement of palliative content. Findings indicated, although most of ELNEC's content was covered within each program, faculty expertise or experience was limited, resulting in inadequately prepared students. It was also noted that nurse educators experienced obstacles when combining cultural

education in their classrooms and identifying appropriate teaching methodologies for the topic (Creech et al., 2017).

As future nurses, student nurses must be prepared both theoretically and practically (Henoch et al., 2017). They must possess the right attitude, knowledge and skills to attend to cultural care. Some of the challenges identified from literature were a lack of organisational support, education and training, education on communication, education on compassionate care, dealing with emotions, and coping mechanisms, as discussed in the following sections.

### ***3.8.1 Organisational Support for Nurses and Caregivers***

Having sufficient organisational support seemed vital to ensure that quality care was provided to patients of different religions at the time of death. Initiatives were introduced in Ireland and UK to improve quality care at the time of death. In Ireland the Health Service Executive (HSE) together with the Irish Hospice Foundation, established a Joint Oversight Group Embedding Hospice Friendly Hospitals (HFH) programme, to ensure that end-of-life, palliative and bereavement care were central to all hospitals (Tyndall, 2018) because half of people die in the hospitals, making hospital services a core service for the population.

A palliative care programme was established in 2010 as a joint initiative with HSE and the Royal College of Physicians. The Irish Hospice Foundation (IHF) launched the Toolkit for Compassionate End-of-Life Care during COVID-19 in January of 2021 (IHF, 2021b), and developed Project ECHO (Extension for Community Healthcare Outcomes), a four-month program to support and remotely train healthcare professionals in palliative care (Usher et al., 2021). Each of these developments were considered strengths in terms of providing end-of-life care (Tyndall, 2018).

The Republic of Ireland also increased the range and capacity of education and training in end-of-life care for staff in acute hospitals and residential centres. HSE introduced an intercultural guide (online) highlighting care of the dying and death-related religious rituals in both traditional and ancient religions, aimed toward nurses and caregivers (HSE, 2021). Improved physical facilities for dying patients and their families placed greater emphasis on providing information for patients and their families on all aspects of end-of-life planning



(Tyndall, 2018). Ireland was clearly beginning to recognize the relevance of religious and cultural needs of the persons at the time-of-death.

In the UK, the Gold Standard Framework for Care Homes Training Programme was widely utilized to improve quality of care and collaboration with the general practitioners (doctors) in order to reduce hospitalisation (Griffin et al., 2009). The Preferred Priorities for Care was a workbook in which a person could write down their wishes and preferences for the last year or months of their life. This document, sometimes called an Advanced Care Plan, was used by some hospitals in England and Wales to guide individualized care (Cancer Research UK, 2019).

The National Hospice and Palliative Care Organization of the United States was cited by Doorenbos (2003) as claiming a lack of hospice information, a lack of financial resources, and cultural differences as factors leading to less access to care. In the USA, providing hospice services to the immigrant population was considered a deficit in the health-care system particularly near the end of life, according to Doorenbos (2003); hospice services were primarily used by White wealthy people. However, this may have been due to cultural choices and preferences for dying at home. A friend of this researcher advised that the national healthcare system (Medicare) for older Americans and many organized labour contracts covered hospice care as an inpatient service (S. Galindo, personal communication, May 1, 2023).

Doorenbos (2003) conducted a descriptive correlational study with a sample of 43 Asian Indian first-generation immigrants. He found that the majority of Asian Indian immigrants in the USA had little or no experience with hospice, although financial resources were not an issue. Doorenbos also indicated that hospice workers misinterpreted cultural differences in death and dying traditions. It was suggested that providers should educate their patients, and learn about the beliefs and practices of patients from various ethnic groups when it comes to death and dying. The small number of respondents and their relatively high level of education were limitations of the study. Although only one small study was reviewed in this

paper in this context, organisation support seemed very important to advancing knowledge of hospice care availability and end-of-life practices.

### ***3.8.2 Nursing Education and Training***

**Death and Dying in a Facility Setting.** According to Salum et al. (2017), death moved from the house to the hospital during the prior few decades, which had an immediate impact on hospital design, since hospital facilities were built to treat sickness and injury. Health workers received training that emphasised different approaches to recovery and to promote health, in addition to treating patients and saving lives. Death was frequently perceived by those in the profession as a setback, a sign of human weakness and vulnerability. The health care team, especially the nursing team whose primary responsibility was to give care, was accustomed to caring for dying patients in a hospital setting. However, because death was a fragile moment, the team tended to feel impotent and frustrated when they could not save a life. The nursing team experienced a loss when patients died after nurses had the opportunity to interact with them during hospitalization.

The World Health Organisation (2014) reported a lack of knowledge and education on death and dying despite the vital and increasing need for education in this context. Palliative care and end-of-life care literature also identified that specialised training, skills, and education were essential for learning end-of-life care. However, nursing care became more challenging when considering the factors associated with the culture, beliefs, habits, and values of the individual as a whole (Duffy, 2001). Nursing students may have found it difficult to learn about death and end-of-life care as they progressed from novice to expert in their quest to become a proficient learner.

Bilge et al. (2013) explained that death and dying events were among the most difficult and challenging aspects of nursing, which involved not only caring for the dying patient but also the family. This difficulty could be exacerbated by cultural differences between patients and caregivers (Hart & Marenco, 2014; Markey et al., 2017). Cultural differences, such as student nurses living away from their home (Markey et al., 2017) and differences in religion (Wang et al., 2018), were identified. Operating amongst all these differences, student nurses

were expected to provide end-of-life care in a meaningful way to patients and their families (Brown, 2016). According to Bilge et al. (2013) and Feudtner (2005), nurses were expected to understand the physical and psychological needs of patients, develop a healthy attitude toward death, and be able to accept death as a phenomenon in order to provide better care to patients. One of the ways of achieving this competency was through clinical placements, which enhanced nursing education.

**Clinical Placement.** However, nursing students faced challenges during clinical placements, too. Brown (2019) stated that it was impossible to predict what situations student nurses might encounter while caring for patients needing end-of-life care, and they may encounter this situation early in their education. Lack of adequate preparation posed a challenge for students. Brown (2019) identified three themes in this context that could contribute to poor outcomes: lack of support and lack of time; communication difficulties (not knowing what to say and how to act when faced with dying patients); and increased anxiety when meeting with the bereaved. Brown reported on nurse mentors and educators' inadequacies with regard to training students on end-of-life care. He stated that the mentor might take a *move on and deal with it* attitude after a patient's death. Although the physical reaction of the students was mentioned, the emotional response of the students was unknown. Increased anxiety, communication difficulties, and lack of support from educators were evidently indicated in the study.

Similarly, a qualitative study conducted by Hopkinson et al. (2005) on novice nurses on clinical placements revealed that few nurses could recall the knowledge they had received in the classrooms. They were able to provide care and respond to the researcher's questions in a manner that suggested that they possessed very little knowledge of this subject. Hopkinson et al. suggested linking theory-to-practice may provide opportunities to learn. They suggested either the educational organisations or the nursing educators should provide education on these topics. It was noteworthy that experiential knowledge was easily recalled among participants and considered most useful to their development. Therefore, promoting theory in classroom and then linking theory to practice by providing students with opportunities to learn through

interaction with patients and families in healthcare settings, lead to effective learning. Linking theory to practice and experiential learning were considered the most useful tools in learning. Dimoula et al. (2019) conducted a descriptive, cross-sectional survey conducted in Greece to explore undergraduate nursing student knowledge about palliative care and attitudes towards end-of-life care and, similarly, found low levels of knowledge.

**Curricular Content.** Hawthorne and Gordon (2020) discussed enhancing religious nurse care practices through educational approaches in nursing curricula and health care organisations. Significant modifications in nursing curriculum, such as the introduction of new educational models, were required if institutions responsible for nursing education were to create culturally competent graduates (Creech et al., 2017). In Ireland, the Nursing and Midwifery Board of Ireland (NMBI) was responsible for Nurse Registration Programmes, Standards and Requirements (NMBI, 2023). It listed competencies for entry into the professional register. These Standards and Requirements provided guidance for Higher Education Institutions and for Health Service providers for the education of Registered Nurses in all four divisions of the nurses' register. The core indicative content for the nurse registration programme for all divisions of the nursing register (RGN, RCN, RNID, RPN) did not have any topics on culture, anthropology, or religions. There was end-of-life palliative care and sociology as applied to nursing mentioned in indicative content, but this information did clarify how each HEI implements the requirement.

Because of a lack of formal integration of courses on death and dying, and the slow uptake of spiritual care in most nursing schools in South Africa, nursing educators there indicated a lack of confidence in their ability to provide spiritual care when educating undergraduates (Linda et al., 2020). One issue mentioned by the authors was the absence of spiritual care guidelines. While willingness to teach was demonstrated, lack of formalised spiritual care training was noted. The authors conducted in-depth structured interviews with ten nurse educators using an exploratory descriptive design. Conducting the study in a single HEI with a small sample population meant findings were not generalisable, however a detailed

description of the process meant the study could be replicated in the future on a larger scale (Linda et al., 2020).

Sampaio et al. (2015) felt spiritual care should be provided, just as other aspects of care. Experiencing spirituality in the time of dying, and interacting with the family were considered appropriate care. In an effort to improve student comfort levels and confidence with spiritual care, research conducted by Briggs et al. (2020) enabled a nursing faculty at Western Kentucky University to initiate a classroom activity to encourage students to think about and reflect upon ten questions. Students answered as to whether they had ever thought about a question being asked, then wrote a short narrative response. Topics included issues about life, death, afterlife, spiritual well-being, truth, and God. Although 88.8% of participants (n=107) considered themselves to be religious or spiritual, results revealed many had never thought about the questions being asked. Based on these findings, Briggs et al. recommended that nurse educators consider including a similar reflective exercise in classrooms to better prepare students for providing spiritual care prior when beginning clinical rotations.

In order to understand death and dying from the perspective of nursing professors, Bandeira et al. (2014) conducted a qualitative and descriptive study engaging ten undergraduate professors through interviews. A thematic analysis of the data indicated that the interviewees felt insecure with the topic, which illustrated the lack of preparation for the undergraduate course. The interviewees also emphasised the significance of dealing with death and dying. It was crucial to realise that the university served as a forum for thoughtful subjects and as a support structure in settings that enabled students to gain first-hand knowledge of the caregiving process (Bandeira et al., 2014).

To codify the actions and interactions performed by nurses when caring for patients and their families during the process of death and dying, Salum et al. (2017) undertook a qualitative study to create a grounded theory. Individual interviews were conducted with 18 participants divided into three groups. Results revealed weakness in nurses' training regarding the death-dying process, the importance of the nurse-patient bond and family member support, and respect for the grieving process. In a descriptive study of death and dying education in an

Australian undergraduate nursing curriculum, Johnson et al. (2009) found inadequate and irregular death and dying education practices. There was a growing need for palliative care in order to minimize undue distress in dying patients by focusing on whole person care (White & Coyne, 2011).

Similarly, Giske and Cone (2012) conducted eight focus groups with 42 undergraduate nursing students in Norway to learn their thoughts on spiritual care. Reading and classroom discussions taught about spiritual care as a crucial nursing role, according to participants, but the topic was poorly defined and there were few opportunities to see spiritual care demonstrated. Participants in this study were concerned that inquiring about spiritual views would upset their patients, and they were especially uncomfortable working with those who practiced a faith other than their own.

Several researchers conducted analyses of nursing textbook content, seeking to quantify the amount of information provided on end-of-life care (Ferrell et al., 1999; Wass, 2004). Analysing the end-of-life content in nursing textbooks, regarding pain and end-of-life care, Ferrell et al. (1999) found only 2% of the overall content included related discussions, and only 1.4% of the chapters in nursing texts were related to end-of-life care. A few years later, Wass (2004) searched within 50 significant nursing textbooks for content related to end-of-life care and found related content to be minimal or absent, less than 2%. Nursing practice was based on nursing education and, hence, changes in the nursing curriculum and provision of continued education seemed essential for improved end-of-life care.

Similarly, Loerzel and Conner (2016) emphasised the need for nurses to be prepared to provide symptom management, support cultural practices, and respect patient and family members' preferences when palliative or end-of-life care became necessary. Loerzel and Conner stated, although the nursing profession considered education regarding end-of-life and palliative care necessary, the amount of time allocated for teaching and learning this critical topic was less than 15 hours: this was the average time allocated for nurses for the study of this topic in the US and in India. Although there were traditional and natural spiritual caregivers in

Indian society, there was no formal training for spiritual issues at end-of-life (Chaturvedi, 2007).

It seemed evident from the literature that there was a lack of training and adequate curricular content on end-of-life care, a lack of preparedness on the part of faculty, and lack of time, each of which posed a challenge to student learning. This indicated that nursing students were faced with multiple challenges, both nationally and internationally because of a lack of education on this topic. On the other hand, improved educational content in recent years had improved nursing students' end-of-life caregiving experience according to Eaton et al. (2012), Fink et al. (2014), and Fluharty et al. (2012).

**Experiential Learning.** The use of standardised patients (specialists professionally trained to portray patient scenarios) in teaching spiritual care towards the end-of-life was investigated by Fink et al. (2014) using a quasi-experimental study with 54 students to compare a treatment group that engaged in a simulation exercise (n=30) to a control group (n=24) that had not. A multiple-choice questionnaire, the Spiritual Care at the End-of-Life Questionnaire, was developed for the study with five questions focused on student perceptions of their knowledge and skill, and 15 knowledge questions related to beliefs and customs of the Catholic, Islamic, and Jewish religions. The findings supported the hypothesis that the treatment group would have had greater knowledge and confidence scores than the control group. However, perhaps because the group which had not engaged in the simulation were further along in their nursing programme (second year, having taken the same course in their first year), the actual knowledge scores among the two groups was significant prior to the first-year simulation experience ( $p=.05$ ;  $t=1.970$ ) with the treatment group demonstrating greater knowledge scores (9.54 compared with 8.71; score range, 0-15). After the simulation experience, the findings were also significant at  $p=.04$  ( $t=2.070$ ) with the treatment group still demonstrating the higher score (10.21 compared with 9.13). The differences in the mean scores from preintervention to postintervention were 0.6712 for the treatment group and 0.4221 for the control group.

Similarly, Fluharty et al. (2012) employed a high-fidelity simulation to teach end-of-life care to baccalaureate and associate degree students in a medical–surgical course. A high-

fidelity simulation involved a computerized full-body, interactive mannequin presenting specific health conditions and physiological responses (Luckar-Flude et al., 2012). After the Fluharty et al. (2012) simulation, involving a convenience sample of 370 undergraduate nursing students enrolled in a medical-surgical course at multiple sites, student knowledge, confidence and communication skills improved.

A qualitative study by Eaton et al. (2012) investigated whether an end-of-life simulation in a home health and hospice practicum improved baccalaureate senior-level nursing student knowledge. Thirty baccalaureate nursing students participated in an end-of-life simulation lab scenario and were asked to report their experience and relate it to their home healthcare and hospice practicum training. They reported their perceptions at two points: once immediately after the scenario and again roughly three to four weeks later. Three themes emerged from the data: experiential learning, affirmative results, and family as client (it appeared that the family was as much the client as the patient when providing end-of-life care). This increased the value of the simulation exercise and encouraged its continued use.

The studies referenced herein supported end-of-life simulations as a strong and viable pedagogical tool for learning in the nursing curriculum. Both simulations, with the high-fidelity and standardised patients, improved student knowledge and confidence in caregiving in end-of-life situations with persons of different religious and cultural backgrounds.

An additional study (Alvarez et al., 2020) indicated that experience and support in caregiving at the end-of-life enhanced caregiver confidence and knowledge. A qualitative descriptive study conducted with 19 fifth-year nursing students in the Magallanes and Chilean Antarctic regions of Chile (between September and October 2018) demonstrated that some of the strengths that nurses possessed when caring for a dying patient were based upon the nurses' previous experiences with death or a guiding nurse's support during a hospital stay. In addition, mental maturity, sensitivity, and soft skills (such as communication) were all considered strengths in caring for individuals at the end of their lives, as were having solid organizational support, selflessness and loyalty, and the other capacities mentioned therein (Alvarez et al., 2020). Students may have performed well because they were in their final year of study and



had some expertise; students may have received appropriate education and exposure in their clinical settings as compared to other studies; and they may have had practice and experience with previous end-of-life engagement.

Wasner et al. (2005), evaluated the impacts of spiritual care training for palliative care practitioners over a six-month period to examine the benefits of such training. A total of 63 people (51% nurses; 16% hospice volunteers; and 14% were physicians) who attended the three-and-a-half-day course were asked to complete three questionnaires: before and after the training, and six months later. Demographic information, numeric rating scales about general attitudes toward palliative care work, the Self-Transcendence Scale (STS), the spiritual subscale of the Functional Assessment of Chronic Illness Therapy (FACIT-Sp), and the Idler Index of Religiosity, were all included in the questionnaires (IIR). The majority of the participants (76%) completed all three questionnaires: 91% were women and the median age was 49 years. Significant and sustained improvements were found in individual perceptions of compassion for the dying, compassion for oneself, attitude toward one's family, satisfaction with work, reduction in work-related stress, and attitude toward colleagues. In addition, the FACIT-Sp. results suggested that the spiritual care training had a positive impact on the spiritual well-being and attitudes of the participants. However, the author indicated there was always a risk of bias measuring a highly subjective concept and when using a self-reported questionnaire. Similarly, (Sampaio et al., 2015) identified the theme of spirituality as important during death and dying, and acknowledged that death and dying had been addressed insufficiently in nursing education.

**Communication Skills.** Another key to improving the quality of nurses' involvement with patients at the time-of-death was training them to communicate issues to patients and families (Coyle et al., 2015). Nurses' communication skills were crucial because they provided much of the care and support to patients and their families throughout a disease, illness, or injury terminal process, and are present at the end-of-life (Wiegand & Russo, 2013). Chant et al. (2002) and Vydelingum (2006) stated few nurses received education on communication, particularly for use at the time-of-death.

Coyle et al. (2015) conducted a study from 2012 to 2014 with 247 inpatient nurses working in the Memorial Sloan Kettering Cancer Centre in New York. Coyle et al. adapted a module on communication skills training for nurses providing end-of-life care on an oncology ward, a module which was originally developed for physicians. The module consisted of 45 minutes of didactic teaching and 90 minutes of small group interaction. Pre- and post- module surveys were distributed so that participants could rate their confidence in discussing their own death, dying and end-of-life goals. Findings suggested that confidence in discussing end-of-life goals increased significantly after the module. However, the study's limitations were that this module may not be replicable in other end-of-life areas as this was focused specifically for oncology nurses. It is unsure if confidence levels remained high thereafter, as the study participants were recruited anonymously so it was not possible to follow up.

Bumb et al. (2017) stated that communication and delivering sad news to a patient and their family was one of the nurses' toughest jobs. Nurses explained and delivered news leading to end-of-life situations. Traditionally, it was the doctor and nurse's role to sit with the patient and family and provide information about a life-limiting diagnosis. However, breaking bad news was considered a process and not a one-of event. Nurses were involved in providing information and helping patients preparing for, receive, understand, and cope with the news they were given (Bumb et al., 2017). Good communication skills were a requisite competency within the nursing practice, viewed as central to preparation for a good death (Cavaye & Watts, 2014). However, nurses reported that learning how to talk to patients and families about death was the most common competency missing in their training (White & Coyne, 2011).

**Compassion.** Along with communication skills, compassion was a fundamental requirement needed for the nurses dealing with patients at the time of death (NMC, 2018). In the final stages of life, showing compassion to patients was of the highest priority. Roach (2004) argued, citing Hellegers, 1974, p. 113), that compassion was needed more than ever to humanise the ever-increasing use of “cold and impersonal world of science and technology” (p 53). She eloquently wrote that “while competence without compassion can be brutal and inhumane, compassion without competence may be no more than a meaningless, if not harmful, intrusion

into the life of a person or persons needing help” (p. 54). Roach suggested we needed to ensure our actions were skilfully informed by the best evidence related to showing compassion to patients and families experiencing death and end-of-life care.

Bramley and Matiti (2014) undertook a qualitative exploratory descriptive approach to studying compassion from the perspectives of ten purposely sampled acute medical ward patients who frequently referred to care and caring while discussing the experiences of compassion and the relationship between compassion and empathy. In-depth, semi-structured interviews were conducted. Words such as empathy, sympathy, and caring were often used interchangeably with compassion, although the meanings of each differ. Participants felt that it was important that nurses understood how it felt to be in the patients’ shoes, believing this led to compassionate behaviour. Considering cultural, spiritual, and religious needs seemed important when caring for patients at the end-of-life.

### ***3.8.3 Emotions Related to Grief and Nursing***

The World Health Organization (2014) recognised that spiritual and psychological support to patients was an essential domain at the time of death. Such support was not only for the benefit of patients, but the nurses also needed psychological support to cope with emotions arising from caregiving. When healthcare professionals worked in places where they were frequently confronted with death, it seemed important for them to understand their own emotions surrounding death, and to be able to express those emotions to others, as well as caring for the needs of dying patients and their relatives. Nurses’ early experiences with patient death, could lead to “considerable cognitive, emotional and clinical challenges” (Anderson et al., 2015, abstract). End-of-life care for youngsters was considered the most difficult and traumatic for nursing students and nurses (Shorey & Chua, 2022). The authors stated that clinical and emotional support were critical in such an emotionally taxing environment, and that professional boundaries needed to be discussed. A number of emotions related to nursing experiences were researched in the literature, including grief, anxiety, and attitude towards death and dying:

**Grief.** Grief was considered a subjective response to the patient's death (Khalaf et al., 2018; Zaya et al., 2011). Nursing students and licensed nurses who were in close contact with dying patients were vulnerable to the experience of grief. Classroom education focused on dealing with grief was considered essential before student nurses exposed themselves to the clinical setting. Due to the significant demands of the nursing profession, nurses may have to constrain their own grief in order to respond to the needs of patients and the practice. Yet, if they cannot process grieving in a healthy way, it can result in a range of consequences, such as burn-out or harmful addictions.

Many nurses grieve when patients die, however, their empathy and grief may not always be acknowledged or discussed openly (Khalaf et al., 2018). There was a need to explore the sentiments, emotions, grieving reactions, and coping techniques following the death of a patient. Khalaf et al. (2018) conducted a qualitative study with 21 Jordanian nurses following the death of a patient. Nurses responded emotionally to patients' deaths and bereavement experiences, according to this study. Several themes arose with regard to the types of feelings with which the participants expressed their grief: sadness, crying, rage, shock, denial, faith, guilt, fear of family reactions, and impotence were among the mourning emotions expressed. As a result, Khalaf et al. emphasized the necessity of teaching and learning ways to cope effectively with bereavement.

Kent et al. (2012) conducted an online survey with 174 nurses in New Zealand participating. The nurses described their first experience with patient death as stressful, distressing, or causing guilt and feelings of helplessness. Similarly, nurses in Ireland who cared for children with an intellectual disability felt grief and alienation (Keenan & MacDermott, 2016). However spirituality was used as an coping strategy to overcome grief in some cases (Betriana & Kongsuwan, 2020).

In order to examine Muslim nurses' experiences with grief, and the coping strategies of those working in an intensive care unit (ICU) in Indonesia with high mortality rates, Betriana and Kongsuwan (2020) used a qualitative phenomenological approach. Fourteen nurses participated in individual semi-structured interviews. Four grief reactions were identified,

which included crying, being sad, feeling disappointed, and feeling guilty. Spirituality was one of the many coping strategies used by the 14 nurses. The limitations of the study were that it was conducted with a small population in a single ICU in a public hospital in Indonesia where majority were Muslims. It might be interesting to explore whether the same results could be obtained from Muslim nurses who work in countries with a non-Muslim population or majority. It was considered important for nursing managers to identify the characteristics of grief and help nurses cope, perhaps by providing bereavement sessions, peer sharing discussions, and connecting with their own spirituality through prayer.

**Anxiety.** Anxiety was another emotional issue faced by nurses while caring for dying patients. Peters et al. (2013) discussed how death-related anxiety impacted nurses when caring for patients at the end of their lives. Anxiety was thought to be caused by an individual's consciousness or awareness of their own mortality. The emerging themes in this study were the level of anxiety, attitudes towards end-of-life care, and education on death and dying. It was stated that there was a low level of death anxiety experienced by nurses working in general hospital wards, oncology, renal care, hospice care, or in community services. In those cases, the level of anxiety was not associated with nurses' attitude towards death or caring for dying patients. However, younger nurses reported fear of death more consistently, and expressed a negative attitude towards providing end-of-life care. It seemed essential that nurses became self-aware with regard to their beliefs and attitudes regarding death and dying. In this regard, a death education program could alleviate death anxiety for the student or for trained nurses, and even the general public. It seemed important to ensure awareness and knowledge of death through educational opportunities.

Payne et al. (1998) undertook a comparative study in the south of England related to levels of death anxiety and coping responses. The participating nurses worked in a hospice and in an emergency room at a general hospital (admission assessment and examination, or A&E). A total of 43 nurses (23 from palliative care and 20 from A&E) were recruited for the study. A Death Attitude Profile-Revised scale (DAP-R) was used, a standardised measure of attitudes towards death. Although the number of deaths in both places were the same, nurses working in

hospice care had lower levels of death anxiety than nurses working in the emergency room. Because the nurses working in hospice were more consistently exposed to death and dying patients, the study indicated that experience reduced anxiety levels. The study sample size was reasonable but included only one of each type of facility.

**Attitude.** Zyga et al. (2011) used a similar scale (DAP-R) to examine 49 Greek renal nurses' attitudes towards death. A total of 44 female and five male nurses were included, having a mean of 10.9 years of nursing experience. The researchers used quantitative surveys and found nurses with specific palliative care education did not fear death as much as others in the study, and had less difficulty talking about death and dying. Those in hospital palliative care, and some other teams, had statistically significant relationships with fear of death and neutral acceptance scores. Nurses with experience and specific education on palliative care had less difficulty talking about death and dying and did not exhibit a fear of death (p. 101). The hospital-based teams (known as palliative care teams, supportive care teams, or symptom assessment teams) had statistically significant and different relationships with the fear of death, and had neutral acceptance scores.

Karadag et al. (2018) conducted a descriptive and comparative study to evaluate the attitudes of 189 nurses working in two university hospitals in the West and East of Turkey. They investigated the care of dying people and the religious and cultural elements that influenced nurses' attitudes. The findings demonstrated that the majority of nurses had undergone end-of-life care training, and both groups of nurses had good attitudes about tending to dying patients. However, due of the patients' heightened Islamic cultural and religious views in the East, as well as those of the patient families, the nurses working in the East had greater challenges than those working in the West. The researchers found culture and religious views could be obstacles for nurses providing compassionate end-of-life care. Because Islam forbids accepting care from the opposing gender, privacy considerations caused a dilemma when it came to offering care in such cases.

Similarly, in a study conducted by Iranmanesh et al. (2008), the attitude of Iranian nurses (n=120) towards caring for dying patients was explored. The nurses who accepted death

as a natural part of life were able to provide care and emotional support to patients who were dying, and to their families. Those who had stronger religious beliefs were able to accept death as a natural process. However, nurses were unlikely to talk to patients or families or to educate them about death. Nurses' personal views and experiences affected their attitude towards care of the dying (Iranmanesh et al., 2008).

In China there was a culture of avoiding and denying death (Tu et al., 2022). Tu et al. undertook a qualitative study to explore nurses' attitudes and coping strategies concerning death and caring for dying patients in a cultural context of death taboo between 2020 and 2021. In depth semi-structured interviews were conducted with 28 female registered nurses recruited through a purposeful sampling from four departments of two major hospitals in Guangzhou, a metropolitan area in Southern China. Participants expressed attitude from both a personal and professional dimension. The personal dimension was influenced by traditional culture and societal attitudes towards death and dying, while the professional dimension was congruent with the nursing and palliative care professional values concerning death and dying. With an obvious discrepancy between these two dimensions, Chinese nurses adopted three strategies in their practice to solve this tension: boundary-drawing to separate their personal and professional life, complying with the existing cultural values at work, and constructing positive meanings for end-of-life care.

### ***3.8.4 Summary***

In summary, the most significant obstacles nurses experienced in the practice environment were a lack of proper information and education, and a variety of emotions when confronted with a death situation. Even when they had a good attitude toward care, nurses were overwhelmed by feelings such as grief and anxiety. The nursing education system in the Republic of Ireland had great potential for improving nurses' ability to cope and to care for patients at the end of their lives through providing sufficient knowledge, experiences, and training with regard to coping strategies.

### **3.9 Conclusions**

Despite the fact that all humans face death, our perceptions of death and how we respond to death and dying differs greatly between cultures (Gire, 2014). Because the world seemed smaller due to increasing interaction of individuals from various cultures, nurse educators must comprehend the complexity surrounding issues of death and dying, just as they must understand the complexities surrounding issues of life. Education and training in this context will enable student nurses to appreciate and understand people from different cultures, as well as to respond to patients and their families in ways that are important to them, enriching the lives of all concerned.



## **Chapter 4: Theoretical and Conceptual Framework**

Chapter 4 of the current study presented the conceptual framework derived from the theoretical explanation of cultural competence as it related to nursing and nursing education. This chapter was organised as follows: (4.1) an introduction; (4.2) the evaluation and definition of cultural competence; (4.3) background; (4.4) iterations of the Campinha-Bacote model; (4.5) the Campinha-Bacote process of cultural competence; 4.6) Campinha-Bacote theoretical constructs; (4.7) conceptual framework and instruments; (4.8) philosophical underpinnings; and (4.9) chapter summary.

### **4.1 Introduction**

The theoretical framework that guided the current study was the Campinha-Bacote Process of Cultural Competence in the Delivery of Health Care Services (Campinha-Bacote, 2011). This model viewed cultural competence as a process similar to an anthropological view of culture, which was, according to Nanda and Warms (2014), the perspective that cultural competence was learnt, shared, and was symbolic, integrated, adapted, and performed. The authors explained that anthropologists' theoretical perceptions were like different windows through which one may view culture. Just as two windows may have different views that overlap or that appear to be different scenes, perspectives on culture may overlap or appear to indicate different aspects of culture.

Chapter 4 of the current study was intended to present a theoretical explanation of cultural competence as it related to nursing and nursing education. A critical discussion of these perspectives was organised in sections: This chapter was organized into the following sections: (4.2) evolution and definition of cultural competence; (4.3) background of the theoretical framework; (4.4) The Process of Cultural Competence in The Delivery of Health Care Services; (4.5) the conceptual framework and tools designed for this study; and (4.6) the philosophical underpinnings of the current study.

### **4.2 Definition and Evolution of Cultural Competence**

There were many theoretical models related to culture in nursing education. The first was Leininger's Sunrise Model which explained the Theory of Cultural Care Diversity and

Universality (1991). Later models were designed by Joyce Newman Giger and Ruth Davidhizar, who developed the Transcultural Assessment Model in 1988 (Giger & Davidhizar, 2002); Purnell's Model for Cultural Competence in 1995 (Purnell, 2002); and Josepha Campinha-Bacote's Process of Cultural Competence in The Delivery of Health Care Services (2002, 2007, 2011). Each of these models were a significant contribution to the field, with no model superior to the other.

The term cultural competence was used extensively in nursing literature to refer to a multi-cultural knowledge base that nurses needed to have, together with the ability to apply such knowledge in practice (Campinha-Bacote, 2002; Leininger, 2001, 2002a, 2002b). The term cultural competence was first coined by Leininger in the 1960s as part of her philosophy of cultural care (Leininger, 1991). The literature reviewed emphasized that, in a globalised and multi-cultural society, cultural competence was an important skill for nurses to possess. It was introduced as a framework for training in 1990s to improve the care of culturally and linguistically diverse populations (Kim & Yu, 2012; Kotrotsiou et al., 2020; Rabie et al., 2020).

**Appropriate Terminology.** In nursing literature there was controversy with regard to the usage of the term cultural competence, yet the term was extensively used. It seemed to be a buzzword in relation to discussions around culture and cultural diversity. According to Kleinman and Benson (2006) cultural competence was a fashionable term, yet it was difficult to define it or operationalise in clinical training and practice. Rinderale (2013) said, if our goal was to generate dedication, initiatives and behaviours that resulted in all people receiving equitable, excellent and the most appropriate services and patient care and products possible, then the term was inappropriately used. According to an American Academy of Nursing (AAN) expert panel report, the term cultural competence needed clarification (Giger et al., 2007).

Shen (2015) conducted a literature review and determined there were 15 definitions of cultural competence beginning with ethnic nursing care (as defined by Orque in 1983), which then morphing into to culturally competent nursing care (per an AAN Expert Panel on Culturally Competent Nursing Care in 1992), then evolved to become 'cultural competence' (according to Andrews and Boyle in 1997). The various and changeable uses of terminology

demonstrated no unified definition or agreement regarding the very meaning and components of cultural competence.

Anthropologists could not decide on a unified definition of culture either, and suggested culture be viewed as a process (Nanda & Warms, 2014). Culture was something existing in thought, or as an idea, but did not have a physical or concrete existence in their view. Contrary to the complex and unquantifiable concept of culture, the concept of competence seemed definable as the ability to do something successfully or efficiently (Oxford Learner's Dictionary, 2023). Competence was something which could be measured. For example, a skill was measured and learnt, and obtaining a skill implied having an end point such as a level of certification. Combining these two contrary words together suggested cultural competence could be a technical skill for which the nurses could be trained and develop expertise. According to Campinha-Bacote (2011), learning cultural competence was an ongoing process without an end point.

Literature reviewed for the current study, focused on nursing education, emphasized nurses cultural competence with the goal of providing care to multicultural populations in practice in a culturally diverse society (Engebretson & Headley, 2009; Lancellotti, 2008). Marcinkiw (2003) emphasized that nurses strove to be culturally competent to enable clients to feel respected, valued, and motivated to achieve health goals. Thus, in order to address the long-standing disparities among people from diverse ethnic and cultural backgrounds, healthcare providers were challenged to consider gaining cultural competence.

Burchum (2002) identified a total of six attributes of cultural competence namely, cultural awareness, cultural knowledge, cultural skill, cultural sensitivity, cultural interaction, and cultural understanding. Most importantly, four of the six attributes (sensitivity, awareness, knowledge, and skill), constituted the domains or subscales used in cultural competence models and assessment instruments (Abualhaija, 2021; Campinha-Bacote, 2002; Shen, 2015). Cultural competence identified people by classifying them according to their ethnic background (Kleinman & Benson, 2006). However, people within ethnic groups may have a unique set of core values and beliefs because of age, gender, political association, religion, class, and even

personality or other factors (Kleinman & Benson, 2006). This invariably created challenges such as stereotyping and could become a backdoor to racism (Lee & Farrell, 2008).

Because of the confusion over the term cultural competence, the American Association of Colleges of Nursing (AACN, 2008) included the term cultural humility in its glossary as an alternative to cultural competence. There were other terms in the literature that were criticized, such as cultural sensitivity, cultural empathy, cultural capacities, cross-cultural dexterity, and intercultural (Rinderle, 2013). Because different cultures interacted with each other, the term intercultural became intercultural effectiveness, which focused on action, and cultural responsiveness (Rinderle, 2013). More recently, a combination of cultural competence and cultural humility morphed into a new term, cultural *competemility*, suggested by Campinha-Bacote (2018, p. 5).

#### **4.3 Background of the Theoretical Framework**

All of the terminology discussed herein clearly demonstrated that there was no word that precisely fit the complex, multifaceted, abstract, ambiguous term (culture) which was always fluid, contextual, and evolving (Rinderle, 2013), particularly as acculturation took place. Culture was an evolving process that could not be measured and knowledge of which did not lead to an end-point. Further, some of the authors stated it might not be appropriate to classify words which did not fit the reality, because words create reality. It was, therefore, important to be careful with the reality we wanted to create. However, realising that words create reality and understanding the complexity of the term cultural competence in nursing literature, it was important to know that, although there are different terms used, they all aim towards one goal: competency in treating patients.

Hence, the researcher in the current study chose both the term cultural competence and the cultural competence process and model developed by Campinha-Bacote (2011). The Campinha-Bacote model seemed to most closely reflect the ongoing process of gaining competence. It was also the model which most closely reflected the aims of the current study, to measure cultural awareness and knowledge.

The two instruments utilized together in the current study were also based on the processes described in the Campinha-Bacote (2002) model. Culturally competent nurses were more likely to be sensitive to cultural differences, and they seemed more likely to challenge marginalization and discrimination (Gerrish & Papadopoulos, 1999; Meleis, 1999). Transcultural nursing was a field of study which helped nurses to become culturally competent. The term culturally competent care referred to nursing care that was sensitive to issues regarding culture, religion, race, gender, and sexual orientation. Thus, cultural competence was a process in which the nurse strove to achieve the ability to effectively work within the cultural context of an individual, family, or community of persons having different cultural or ethnic backgrounds than the practitioner. Therefore, the Campinha-Bacote model of the process of cultural competence (2011) was selected for use in the current study as a theoretical framework.

#### **4.4. Iterations of the Campinha-Bacote Model**

In 1991, Campinha-Bacote identified four constructs involved in cultural competence: cultural awareness, cultural knowledge, cultural skill and cultural encounters. However, the constructs were (a) limited in scope and needed to be expanded to include new developments in the fields of transcultural healthcare and cultural competency; (b) the model failed to portray the interdependency among the four constructs, and (c) it was felt that cultural competence was comprised of more than awareness, knowledge, skill, and encounters (Campinha-Bacote, 2007). Hence, in 2002, an additional role was clarified. Cultural desire was identified as a pivotal construct that ignited the process of becoming culturally competent. Thereafter, in 2010, a review of the literature regarding the characteristics of culturally competent health care practitioners, and a review of the findings of evidenced-based research studies, revealed that the pivotal and key construct in the process of becoming culturally competent was experience with cultural encounters (Campinha-Bacote, 2011). The need for cultural encounters in nursing education was identified throughout the literature review of the current study.

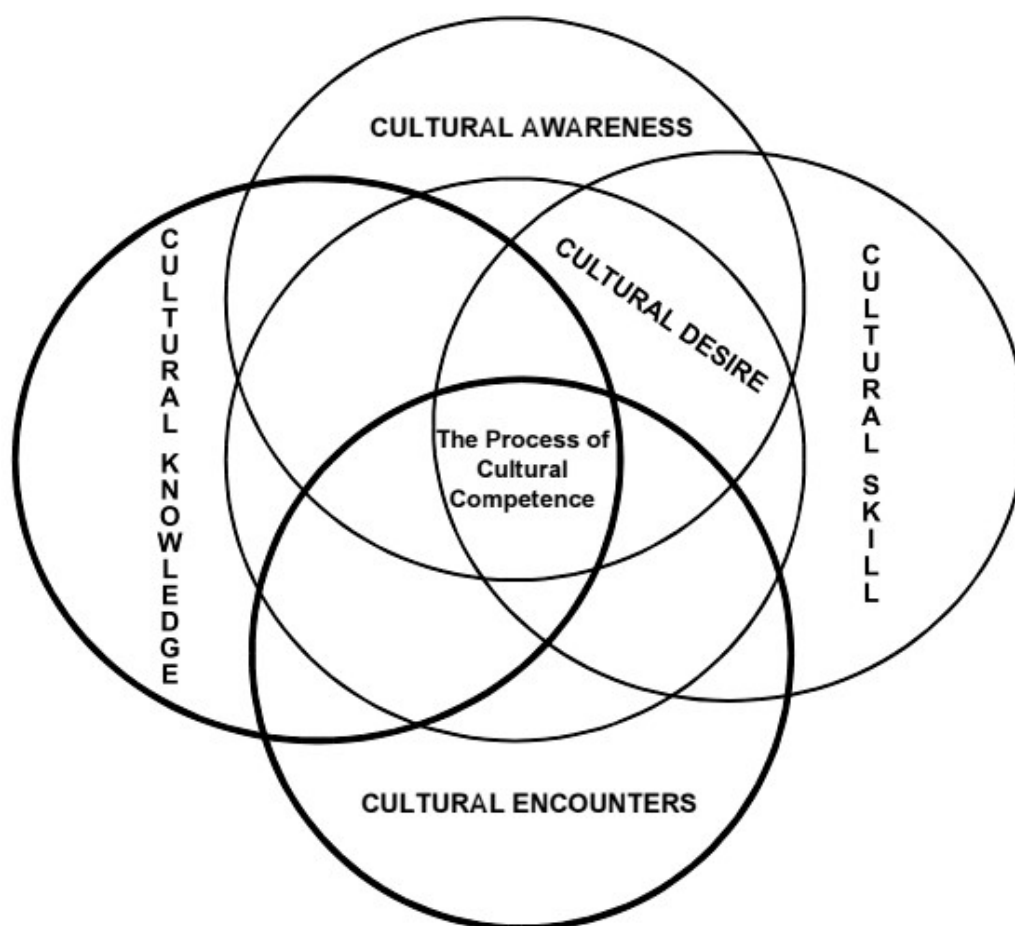
#### **4.5 The Campinha-Bacote Process of Cultural Competence**

The Campinha-Bacote Process of Cultural Competence in the Delivery of Health Care Services was developed in 1998 (Campinha-Bacote, 2011). Campinha-Bacote studied

transcultural nursing extensively, and contributed to the current body of nursing knowledge in areas of implementation and evaluation of cultural competence in the nursing curriculum. The model (Figure 1) viewed cultural competence as an ongoing process within which the health care provider continuously strove to achieve the ability to effectively work within the cultural context of the patient (individual, family, community).

**Figure 1**

*The Process of Cultural Competence*



*Note.* The Process of Cultural Competence in the Delivery of Health Care Services model. Source: Transcultural C.A.R.E. Associates (as cited in Campinha-Bacote, 2002, p. 183).

The Campinha-Bacote model (2011) indicated that the foundational construct and beginning and ending points of the process of becoming culturally competent revolved around seeking and experiencing many cultural encounters (p. 46). The goals of cultural encounters

were to continuously interact with patients from culturally diverse backgrounds in order to validate, refine, or modify knowledge of values, beliefs, and practices with regard to a cultural group, and to develop cultural desire (to be effective), cultural awareness, cultural skill, and cultural knowledge (Campinha-Bacote, 2011). The model later focused on five constructs which formed the acronym ASKED:

- Cultural (A) awareness,
- cultural (S) skill,
- cultural (K) knowledge,
- cultural (E) encounters, and
- cultural (D) desire (Campinha-Bacote, 2011, p. 46).

#### **4.6 Campinha-Bacote Theoretical Constructs**

**Cultural Awareness.** Campinha-Bacote (2007) described cultural awareness as the understanding that culture and background impacted behaviour, attitude, and the ability to identify and explain cultural diversity. In addition to ideas and behaviours, cultural awareness was defined as "the deliberate self-examination and in-depth exploration of our personal biases, stereotypes, prejudices and assumptions that we hold about individuals who are different from us" (Campinha-Bacote, 2007, p. 27). An important aspect of cultural awareness was its' potential for cultural imposition, which was the tendency to impose our culture upon another, potentially including beliefs, values, and other patterns of behaviour. In seeking cultural awareness, health care providers must be cognizant of and avoid cultural imposition in order to move toward achievement of cultural competence.

**Cultural Knowledge.** According to Campinha-Bacote (2007), cultural knowledge was described as the process of acquiring an education about various cultural and ethnic groups which enabled the individual to comprehend the patient perspective. Cultural understanding comprised anthropological, social, psychological, and biological cognition, as well as understanding similarities and differences, and how this applied to healthcare. Through connection with members of various ethnic groups, it was possible to acquire cultural

information (Papadopoulos et al., 2004). Obtaining cultural information regarding patient health-related attitudes and values required an appreciation of their worldview. The patient worldview explained how they understood their condition and how it influenced their thinking, doing, and being (Campinha-Bacote, 2002) .

**Cultural Skill.** Cultural skill was the capacity to obtain pertinent cultural facts regarding a patients' presenting problem, and to conduct an appropriate culturally-based physical examination (Campinha-Bacote, 2007). This meant learning how to perform evaluations and physical examinations based on cultural considerations. Performing a physical evaluation on people of varied ethnic backgrounds also required cultural competence (p. 49). The healthcare professional must be aware of how the providers' physical, biological, and physiological differences affected their own capacity to conduct an accurate and appropriate assessment. Examples include variations in body form, skin colour, observable physical traits, and laboratory conditions.

**Cultural Encounters.** A cultural encounter was a practise that enabled healthcare providers to interact directly with people from varied cultural backgrounds (Campinha-Bacote, 2007). Direct interaction with people from varied cultural groups was demonstrated (see Chapter 3) to improve or change pre-existing perceptions about a cultural group, minimizing the possibility of stereotyping. However, healthcare professionals must be mindful that contact with only three or four members of a certain ethnic group did not yield expertise on that culture. A few individuals may not represent the majority views, attitudes, or practises of the particular cultural group, just as a small sample in research is not generalizable. In addition, the inability to generalize from meeting a small group of individuals was related to intra-ethnic variance, which implied there was as great or greater variety within a culture as across cultures.

It was important to realize cultural interactions entailed an evaluation of linguistic requirements. Using a properly qualified translator to facilitate communication throughout an interview process may be essential. Due to patient lack of expertise with regard to medical terminology and disease entities, in most cases, the use of an unskilled translator such as acquaintances or family members, may be problematic and complicate communication. The



lack of expertise in translation may result in flawed and erroneous data collection, too (Campinha-Bacote, 2002).

**Cultural Desire.** According to Campinha-Bacote (2007), cultural desire was described as the desire of the health care provider to want to, rather than have to, engage in the process of becoming culturally aware, culturally knowledgeable, culturally skilful, and experienced with cultural encounters. Cultural desire involved the concept of caring. It was said people did care how much you know until they first know how much you care (Campinha-Bacote, 1999). It was not enough for the health care provider to just state that they respected patient values, beliefs, and practices, or to go through the motions of providing a culturally specific intervention that the literature indicated was effective with a particular ethnic group. What was of utmost importance was that the health care provider had genuine motivation or desire to deliver care that was culturally appropriate. Cultural desire included a genuine passion to be open and adaptable with others, to accept differences and build on similarities, and to be willing to learn from one another as cultural informants. This type of learning was considered a lifelong process and was also referred to as cultural humility (AACN, 2008).

#### **4.7 The Conceptual Framework and Instruments Designed for the Study**

The conceptual framework for the current study was based on The Process of Cultural Competence in the Delivery of Health Care Services model developed by Campinha-Bacote (2002, 2007, 2011). As stated earlier and illustrated in Figure 2, the model included five constructs for acquiring cultural competence: awareness, knowledge, skill, encounters and a desire to be effective.

**An Assumption.** One assumption in the design of the conceptual framework for the current study was that the measurements generated by the two questionnaires utilized in the current study, with regard to cultural awareness and cultural knowledge, would correlate with each other. The study intended to measure the self-perceived level of cultural awareness and the actual knowledge levels of participants as related to the death rituals of three specific religions (Christianity, Islam and Hinduism). In addition to examining the relationship between the two constructs, the current study aimed to collect data on the demographics and the

educational experience of the nursing students involved in the study. A modified cultural awareness scale (mCAS) was developed based on the CAS that was reanalysed in 2014 (Rew et al., 2014) to measure nursing student cultural awareness. A knowledge questionnaire (KQ) was specifically developed for the current study to measure cultural knowledge.

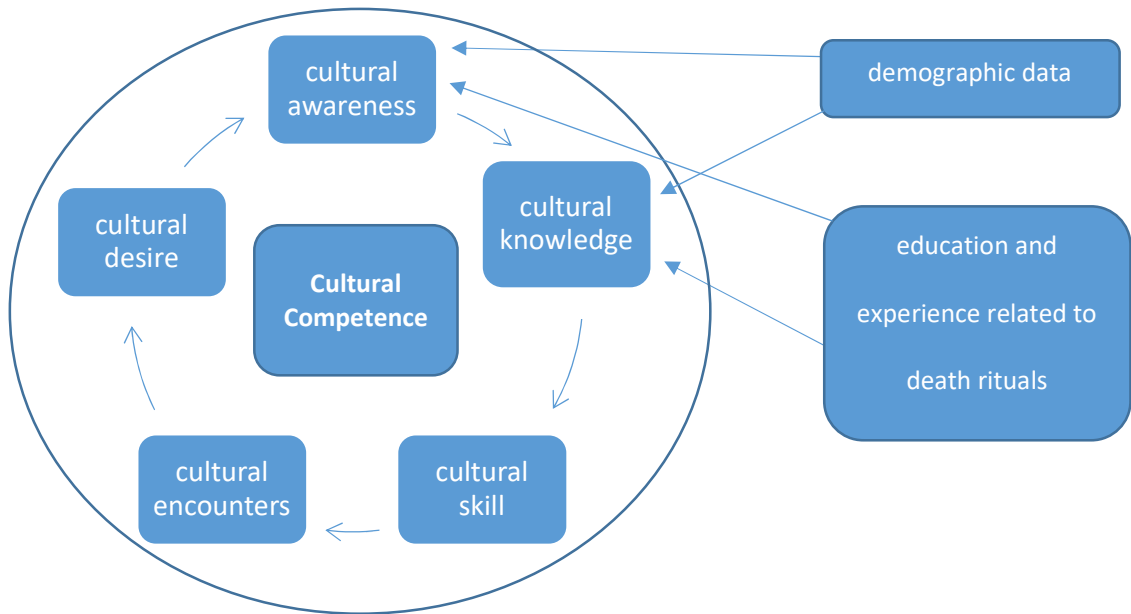
**Conceptual Framework.** Figure 2 was developed to provide a pictorial representation of the conceptual framework for this study. Within the Figure, on the left, appear the five Campinha-Bacote (2002) constructs of awareness, knowledge, skill and ability, encounters and situations, attitudes and desires (forming the mnemonic ASKED in Campinha-Bacote, 2011, p. 46). These constructs surround the central objective of cultural competence, the dependent variable in the current study, indicating possession of these constructs influence cultural competence. The arrows in a circular motion in the diagram were intended to illustrate the interrelationship between the constructs. In practice, those arrows portrayed that, while the health care practitioner worked on one construct of cultural competence, such as cultural knowledge, encounters could give rise to cross-cultural interpersonal learning relating to developing awareness and skill, and influencing a desire to be effective.

To the right of the central constructs, the independent variables (demographic data, and education and experience related to death rituals) were predicted to have an effect on a perceived level of general cultural awareness and specific knowledge of death rituals. Thus, the arrows were aimed from the demographic information and from the educational and experiential information towards those two constructs of cultural competence.

In the current study, the researcher explored the question of whether the independent variables (demographic data; education and experience related to death rituals) had a relationship with the dependent variables as predicted. In other words, the current study explored the relationship between demographic data and education and experience to the process of acquiring cultural competence. Although not shown here, the current study also explored how cultural awareness (the modified cultural awareness scale) correlated to cultural knowledge (the knowledge questionnaire).

**Figure 2**

*The Conceptual Framework and Model Designed for this Study*



#### **4.8 Philosophical Underpinnings**

Research philosophy was said to be a system of beliefs and assumptions regarding the generation of knowledge (Saunders, 2009). Although this sounded insightful, it appeared to be precisely what researchers did when they began a study project. Knowledge development may not be as significant as developing a new theory, but even finding out more about a specific problem furthered the development of new knowledge (Saunders, 2009).

According to Crotty (1998), the terminology used in research could be confusing, and several assumptions shaped the understanding of research questions, methods used, and means for interpreting research findings. For example, epistemological assumptions were about human knowledge, ontological assumptions were about the realities encountered in research, and axiological assumptions were about the extent of and ways in which our own values influenced the research process. Crotty (1998) wrote that every researcher needed to spend a considerable amount of time answering two questions in particular:

- First, what methodologies and methods will be employed, and how do we justify the choice and use of methodologies and methods?

- The second question involved defining the purpose of the research and the research question we were seeking to answer.

Therefore, it was imperative to consider the philosophical assumptions that underpinned research methods to ensure that the most appropriate approach and design were justifiably selected to answer the research question and serve as a basis for any subsequent decisions taken during the study (Crotty, 1998).

Selecting the appropriate research design and practice largely depended upon the beliefs and values of the researcher, the resources available, accessibility of the respondents, and whether the research was considered ethically sound (Parahoo, 2006). Crotty (1998) explained that the four elements that informed one another in designing research were: epistemologies, theoretical perspectives, methodologies, and methods. These terms represented the distinct hierarchical level of decision-making within the research design and all are addressed in the current study.

**Epistemology.** Epistemology dealt with the entire research process and entailed knowing "how we know what we know" (Crotty, 1998, p. 16). It provided a philosophical grounding for deciding what kinds of knowledge were possible to acquire, and ensuring that those were adequate and legitimate (for example, objectivism, constructivism or subjectivism). The theoretic perspective would be implicit in the research questions and dictate the choice of methodology (for example, survey research, ethnography, grounded theory). The choice of methodology was the strategy or plan of actions linking to the choice and use of research methods and instruments employed to gather and analyse data related to the research question (for example, questionnaires, interviews, focus groups).

In the current study, these research design elements lead to deciding upon a research approach that was quantitative, versus a qualitative or a mixed-methods study. However, there were three open-ended questions which asked nursing students where they obtained information about caring for the dying or deceased person belonging to a different religion. Two multi-response questions (Q16.1-5 and Q18.1-8) were part of Section 3 of the survey instrument, which focused on education and experience. The last question (KQ23) of Section

4, the Knowledge Questionnaire (KQ) on Religious Death Rituals, was an open-ended question. The two multi-response questions (Q16.1-5 and Q 18.1-8) had an optional fill-in-the-blank response to “other”, as did the one open-ended question (KQ23). The questions included (Q16.1-5) “Where did you learn about religious death rituals”; (Q18.1-8) “Where specifically did you learn about different death rituals during your current nursing programme”; and (KQ23) "In relation to religious death care of the three religions (Christianity, Islam and Hinduism), please list any other sources of information that you use?"

Because of the complex nature of culture, it was difficult to limit culture and cultural competence to a single paradigm. The epistemology of the current study was based on objectivism, which lead to the selection of the theoretical perspectives of post-positivism and constructivism. This dictated the choice of methodology chosen for the current study, which was survey research, which further proscribed the use of questionnaires. The philosophical movements that underpinned this study were constructivism and post-positivism. In order to understand these philosophies, it seemed important to first understand the social construct of culture.

#### ***4.8.1 The Social Construct of Culture***

The current study took the epistemological stance that culture was socially constructed. According to St. Clair (2008), culture was socially constructed, which meant that culture did not exist in objective reality but as a result of human interaction. The concept of culture differed in a minor way from the concept of social beliefs. People created social reality mind-sets and put them into effect as social practices. From the perspective of each society, what people said and did were not part of a culture but part of the sociology of everyday life (St. Clair, 2008). The social construction of culture was also discussed by Berger and Luckmann (1996). They proposed that knowledge was socially constructed and what may seem real in one culture may not always seem real in another. Our individual constructs differ in terms of our social realities. Berger and Luckman went on to demonstrate that social values were constructed through three concomitant sociological processes, externalisation, reification, and internalisation (p.3).

For example, St. Clair (2008) felt language, the sharing of ideas, thoughts, or feelings with others, would be difficult unless they are first externalised through language (structural epistemology). Without a shape, a thought is unfathomable. To be shared with others, meanings must have a form or pattern of existence. Ideas, thoughts, and feelings become objectified or refined once they are encoded into a language (objectification). At that point, they exist outside of the speakers who created them (St. Clair, 2008).

Culture was an abstract word, meaning that culture existed in thought or as an idea but did not have a physical or concrete existence. According to Griswold (2013), culture took on a physical form in our minds because of the social expression of culture that could be articulated and shared. According to Griswold, people created, articulated, and communicated culture. A spiritual or philosophical expression was not physical in nature, yet it became tangible in our minds and equivalent to an object (Griswold, 2013). A cultural expression could become so real that people perceived it as something achievable or concrete. The mental picture was the object, and the meaning associated with the object was the expression when speaking about non-material culture.

Kennedy (2021) explained this concept clearly with the example of love: Even though no one could genuinely touch love in a tangible form, people envisioned it in their brains and experienced it in their hearts when they talked about love. We identified love with a wide range of mental and physical interactions, yet love was not solid or substantial in and of itself. On the other hand, material culture was associated with physical objects that reflected a clear grasp of their nature. They were visible, auditory, and touchable. For example, to show our affection, we bought and offered gifts. A physical manifestation of love was the material artefact we give to someone. It was symbolic of our love. Non-material culture was expressed in material culture (love=gift) in this example, and material culture symbolized non-material culture (gift=love). Hence, cultural objects became representations of many things and could have many meanings based on the history and biography of an individual, group, or society.

Another illustration, according to Kennedy (2021), was explained in terms of the motto, ‘follow your dreams’. In the United States, the phrase was frequently used while discussing

educational and professional motivation and preparation (Kennedy, 2021). This statement created an open space for academic or professional choices and opportunities for many Americans. However, the objective could be limited by an individuals' culture. For example, Afghan females were limited in terms of the social position of their gender and had limited educational and job options, constrained by their country's culture.

According to Kennedy (2021), society may not accept every cultural concept or product. People created culture, but it had to be received or accepted by others in order for it to become concrete, real, or acknowledged as an item, including artefacts. In order for culture to be developed and accepted, creators of cultural ideas and concepts needed an audience to receive them and define their meaning. Time, place, conditions, and social forces all determined whether or not a cultural object was accepted or rejected by an audience (Kennedy, 2021). This indicated that social acceptance was key for the construction of social reality or culture, and therefore it might be said that culture (reality) was socially constructed and objectified according to the individual's reality in terms of the socially constructed object. Then, the question arose: How did culture become an object or solidified, socially accepted, and practiced?

The word meme was coined by British evolutionary biologist Dr. Richard Dawkins (Dawlabani, 2013). According to Dawlabani, Dawkins described the meme as “a unit of cultural information” (p. 38) that was “capable of self-replication, using the human mind as a host. It could be compared to social, cultural, and psychological DNA that contained behavioural traits passed from one generation to the next” (p. 38). At about the same time (mid-1970s), Dr. Don Beck (1937-2022) sought out Dr. Clare Graves (1914-1986) to discuss Graves' grounded theory of human social evolution. Graves had provided a framework for understanding human interaction and behaviours in terms of eight cyclic levels of individual, organizational, and societal development (Dawlabani, pp. 38-39). Beck (later with Christopher Cowan) integrated Graves theory with a functional application of memetics in the development of Spiral Dynamics.

According to Spiral Dynamics theory, the eight levels of human social evolution were based upon a society's value systems, or value memes ('MEMEs), unique to every culture (Dawlabani, 2013). Value memes became organizing principles that bonded people together through music, fads, fashion, religion, architecture, lifestyles, icons, language, politics, sports and more (pp. 38-39). In this way, the value systems came to define individuals and cultures. They shaped thought, becoming a set of assumptions that indicated on a cultural level what was important to a society or individual (p. 39). Value memes determined most aspects of daily life, affecting how resources were distributed and how decisions were made. With regard to the evolutionary nature of value systems, Dawlabani stated, "Because humans and human societies are adaptable, new memes evolve as biological, psychological, and social conditions change, allowing for the emergence of new value systems" (p. 39). Thus, while value systems (human societies) followed recognizable cycles of psycho-social evolution, in their details (cultural memes) they were constructed and spread through human interaction, depending upon life conditions.

#### ***4.8.2 Constructionism, Constructivism and Cultural Competence***

In a 2006 editorial, Campinha-Bacote wrote,

In 1986, the American Nurses Association issued its first guidelines on cultural diversity in nursing curricula. Since then, there has been an ongoing discussion as to what is the theoretical underpinning of cultural training within nurse education, and 20 years later, nurse educators continue to ask, 'How do we effectively teach cultural competence in nursing education?' (Campinha-Bacote, 2006, p. 243)

This researcher would ask, what would be an applicable theoretical underpinning for cultural education, and what would be its effectiveness in changing cultural awareness or the competence levels of students? The theories of constructionism and constructivism were essential to understanding and learning about culture and cultural diversity. However, the difference between constructionism and constructivism was that artefacts were created through social interactions of a group in constructionism, but constructivism focused primarily on individual learning through group interaction. The current study focused on exploring the



educational experience of individual students based on their learning, learning which was a self-directed process of constructing meaning and which involved interaction with others.

In recent years, learning seemed to be viewed from a constructivist perspective (Sercu et al., 2005). Constructivism assumed that meaning and values could differ for different individuals. Thus, the methodology used for teaching and learning was interpretive, and it involved a constant comparison of differing interpretations. Developing an awareness of differing interpretations among the participants in a health care programme was an essential part of the profession, particularly with an increasingly diversified population (Hunter & Krantz, 2010). According to Campinha-Bacote (2006), the theoretical approach to course development in cultural education was heavily affected by the student population needing to take the course. To implement a teaching and learning strategy, the constructivist learning theory fit within a larger constructivist epistemology; it was a way of knowing that acknowledged multiple socially constructed truths, perspectives, and realities versus a single reality (Guba & Lincoln, 1994).

Constructivist education aimed to capitalise on a learners' previous experiences and perspectives and embed learning in relevant social contexts (Jonassen et al., 1995). Learners engaged in collaborative discourse and reflection to explore old and new concepts and develop new meanings through interaction with one another and the teacher. A fundamental concept of constructivism was the process of reconciling disagreements, negotiating meaning, and constantly reshaping thinking (Ubbes et al., 1999). Therefore, the philosophical movement that underpinned cultural learning and the current study was constructivism.

#### ***4.8.3 Post Positivism***

Post-positivism was concerned with the subjectivity of reality, a departure from the positivist position of strict objectivity (Ryan, 2006). It was often connected with quantitative methodologies and extremely formal language that emphasised precision, generalizability, reliability, and reproducibility. Post-positivists viewed research as a series of logically interconnected procedures that resulted in knowledge claims based on objectivity, standardisation, and duplication (Creswell, 2009, Teddlie & Tashakkori, 2009).

According to Clark, (1998), researchers in nursing had a propensity to dichotomize their research endeavours into qualitative or quantitative paradigms, viewing them as mutually irreconcilable polar opposites that covered different perspectives on reality and truth (Rolfe, 1994). Frequently, empirical research was exclusively connected with positivist philosophy (Playle, 1995). Such labelling was commonly employed to contrast an author's alternate ideology or practise. Schumacher and Gortner (1992) stated that critiques of positivism highlighted the obvious shortcomings of an approach to nursing that dismissed the significance of subjective, social, spiritual, and interpretive components of the individual. Positivism employed an overly reductionist view of the person in its quest for universal mechanistic rules which were culturally independent (Rolfe, 1994). Thus, the current study moved away from positivism toward post-positivism and constructivism, which encompassed both subjective, objective, social and spiritual components of the individual in answering the research question.

#### **4.9 Chapter Summary**

This chapter provided an explanation of the theoretical and conceptual frameworks, and the philosophical underpinnings of the current study. The quantitative methodology employed was discussed in Chapter 5.

## **Chapter 5: Methodology**

An overview of the methods used in the current study and the research methodology were detailed in Chapter 5. This chapter was organised into the following sections: (5.1) introduction; (5.2) problem; (5.3) title of the study; (5.4) aim; (5.5) objectives; (5.6) research questions; (5.7) investigation method; (5.8) online survey; (5.9) population and sample; (5.10) access to schools and recruitment; (5.11) data collection; (5.12) measurement; (5.13) data analysis; (5.14) ethical considerations; and (5.15) chapter summary.

### **5.1 Introduction**

According to Crotty (1998), a methodology was a strategy, plan of action, technique, or design for conducting research that included the selection and implementation of specific methodologies, as well as the relationship between method selected and desired outcomes. In the current study, a cross-sectional descriptive approach was adopted to explore undergraduate nursing student cultural awareness of death-related religious rituals practised by the three world religions (Christianity, Islam, and Hinduism) in the Republic of Ireland.

According to the WPR (2023b), Christianity was the most common religion in the world in 2020. Islam was second, and non-religious and atheist persons were the third largest group. The fourth largest group in the world was Hinduism. Ireland was majority Roman Catholic (84%) with a 4-7% non-religious population (14% in Northern Ireland) depending upon the source, a rapidly growing Muslim population due to immigration, and other religions claimed to a lesser degree (WPR, 2023a). Hinduism was chosen from among the other minority religions because of the researcher's interest and because it was the third largest religion in the world. The three religions with the largest followings in the world seemed appropriate for the current study: Christianity, Islam and Hinduism.

The proposed strategy of inquiry for the current study included the distribution of two quantitative surveys. The researcher sought methods that could yield practical and relevant answers to the research questions posed. In the context of the current study, the questions regarding undergraduate nursing student cultural awareness and knowledge of religious death rituals were answered using quantitative scales. A few open-ended questions included on the

survey were expected to provide insights into participant understanding of the various resources available when providing death care for culturally and religiously diverse persons. The open-ended questions included two multi-response questions (Q16.1-5 and Q18.1-8) in Section 3 of the national survey (Education and Experience) which had an optional fill-in-the-blank response for “other”, and one open-ended question in Section 4, the Knowledge Questionnaire (KQ23), each asking as follows:

- (Q16.1-5) “Where did you learn about religious death rituals”,
- (Q18.1-8) “Where specifically did you learn about different death rituals during your current nursing programme”
- (KQ23) "In relation to religious death care of the three religions (Christianity, Islam and Hinduism), please list any other sources of information that you use?"

The qualitative data generated by the open questions wasn't sufficient to consider the study mixed-methods because there was only unique and very limited data generated by the open-ended questions, and they were not intended to triangulate to the findings from the quantitative survey questions. The research design explained herein included the sample population, the variables, the source of data collection, instrument selection and design, and strategies to be used to analyse the data. The present chapter formed a discussion of the strategy employed for tackling the problem under study. The next section includes, first, an outline of the study problem, title, aim and objectives of the current study, which seemed important to reiterate briefly.

## **5.2 Problem**

As stated earlier, according to Maier-Lorentz (2008), nurses faced challenges caring for an ever-increasing multicultural population. Many research studies also expressed concerns regarding the care provided to culturally diverse and ethnic minority populations, especially at the end of life (Bhopal, 2012; Hannigan et al., 2018; Raleigh & Holmes, 2021). Červený et al. (2019) had specified increasing challenges related to language, religion, and lack of cultural knowledge in the health care profession. A growing body of literature in the last twenty years

(2002-2022) illustrated the increasing importance of culturally competent care when encountering diverse populations in a health care setting (Campinha-Bacote, 2002; National Social Inclusion Office, 2012, 2019; Osmancevic et al., 2020; Rabie et al., 2020). Cultural competence was defined as "an ongoing process in which the health care provider continuously strove to achieve the ability to work effectively within the cultural context of the client, individual, family, and community" (Campinha-Bacote, 2002, p.181; 2007, p. 15).

### **5.3 Title of the study**

A National Study in Ireland to Measure Undergraduate Nursing Students' General Cultural Awareness and Specific Knowledge of Death Rituals Practised by Three World Religions (Christianity, Islam, and Hinduism)

### **5.4 Aim and Objectives**

#### **5.4.1 Aim**

The aim of the current study was to measure undergraduate nursing students' general cultural awareness and their specific knowledge of death rituals practised by three world religions (Christianity, Islam, and Hinduism) in the Republic of Ireland.

#### **5.4.2 Objectives**

The objectives of the current study followed a process of development, inquiry and analysis. First, the researcher developed a Knowledge Questionnaire (KQ) from influences in the literature and through engaging informally with religious experts belonging to each of the three religions. The researcher also sought and obtained permission to utilize a modified version (mCAS) of the most recent Cultural Awareness Scale (CAS) developed by Rew et al. in 2003 and reanalysed in 2014.

The study was then implemented nationwide, approaching 5050 undergraduate nursing students at eight universities in Ireland, which represented all four provinces in the Republic of Ireland. A quantitative research method (survey) was used to collect information from the students. The complete instrument included 71 questions: the mCAS (32 questions) and KQ (23 questions), along with seven personal demographic questions and nine questions related to education and experience. It was envisaged that these methods would enable the researcher to

answer the research questions posed in the current study as described herein. The development and validation of the mCAS and the Knowledge Questionnaire tools has been explained in Chapter 6. Outlined step-by-step, the objectives of this study were:

1. To design a questionnaire to measure the level of knowledge of death rituals practised by three world religions (Christianity, Islam and Hinduism)
2. To test the validity of the knowledge questionnaire (KQ) by giving it to experts to check for face validity and content validity
3. To test the reliability of the knowledge questionnaire using Cronbach's alpha coefficient to measure the internal consistency of the set of survey items
4. To seek permission to modify and utilize the Rew et al. (2014) Cultural Awareness Scale.
5. To undertake a nationwide study with undergraduate nursing students studying at Higher Educational Institutions (HEIs) in the Republic of Ireland using the two instruments developed for the current study, as well to learn their demographic, academic and professional profiles.
6. To test construct validity (factor analysis) and reliability (Cronbach's alpha) of the modified Cultural Awareness Questionnaire (mCAS).
7. To establish the reliability (Cronbach's alpha) of the new Knowledge Questionnaire (KQ) related to knowledge of religious death rituals.
8. To measure undergraduate nursing student cultural awareness and knowledge of the religious death rituals related to three religions of the world (Christianity, Islam and Hinduism).
9. To determine the correlation of the modified cultural awareness scale (mCAS) and knowledge of death rituals questionnaire (KQ).
10. To explore the relationship of the demographic variables to cultural awareness and knowledge of death rituals.
11. To determine the relationship of nursing student experiences and education to cultural awareness and knowledge of religious death rituals.

## **5.5 Research Questions**

The overarching research question was: In Ireland, what are undergraduate nursing students' general cultural awareness and specific knowledge of death rituals practised by three world religions (Christianity, Islam, and Hinduism)? By answering the research question(s), this study hoped to contribute to existing knowledge in the field of cultural education in undergraduate nursing education, and to generate knowledge specific to the religious death rituals of three religions (Christianity, Islam and Hinduism). Sub-questions included:

1. What is the demographic and professional profile of undergraduate nursing students in the Republic of Ireland?
2. What are the validity and reliability of the modified cultural awareness questionnaire and the reliability (internal consistency) of the knowledge questionnaire?
3. What is the cultural awareness and knowledge of undergraduate nursing students in Ireland as related to death rituals of the three world religions?
4. What is the correlation between cultural awareness and knowledge of religious death rituals?
5. What is the relationship between the demographic profile of nursing students to their cultural awareness and knowledge of death rituals?
6. What is the relationship of student experiences and education in caring for people at the time of imminent death (or time of death) to cultural awareness and knowledge of death rituals?

## **5.6 Investigation Method**

Survey research was defined as "the collection of information from a sample of individuals through the responses to questions" (Check & Schutt, 2012, p. 160). According to Singleton and Straits (2009), survey research could use quantitative research strategies (e.g., using questionnaires with numerically rated items), qualitative research strategies (e.g., using open-ended questions), or both strategies (e.g., mixed methods). These methods were often used to describe and explore human behaviour, and were frequently used in social and psychological research (Singleton & Straits, 2009).

Survey research facilitated the measurement of attributes such as attitudes, opinions, perceptions, and behaviours, and was widely used in marketing, politics, psychology, education, business, and healthcare (Gray, 2009; Nieswiadomy, 2012). Survey research could be generally categorized into two groups, manual and electronic. Surveys could be conducted in a number of different ways: by phone, mail or email, or face-to-face in interviews with subjects, or by using a CATI system (computer-assisted telephone interviews), or surveys posted online for participants to complete.

Through the use of surveys, participants may be studied using a cross-sectional or longitudinal approach. In cross-sectional surveys, subjects are studied at a set point in time. However, longitudinal surveys follow subjects over an extended period of time (Nieswiadomy, 2011) with periodic or beginning-and-ending inquiries. The advantage of survey research was its flexibility and scalable scope. Historically surveys were broadly disseminated to collect extensive population-based data. The primary goal of survey research was to quickly gather information about the characteristics of a large group of people of interest. Examples included extensive census surveys that collected data on demographics, political surveys, and consumer feedback surveys (Ponto, 2015). The term survey also encompassed a wide range of research goals, sampling and recruitment techniques, data gathering instruments, and administrative methodologies (Ponto, 2015).

The control exercised by the researcher in survey research lay with the sampling technique (Ponto, 2015). The ability to generalise sample results to a larger population of interest depended upon the sampling method and sample size. According to Ponto, survey research had evolved into a rigorous approach to studying a problem, with scientifically tested strategies detailing whom to include (representative sample), what to distribute (survey), and when to start the survey and follow up with non-respondents in order to ensure a high-quality research process and outcome (reducing non-response error).

The mCAS and KQ were developed within the current study and were used to correlate a number of independent variables to the dependent variable shown in Table 1. In addition, demographic, academic, and professional data were collected to determine their relationship to



key variables. The independent and dependent variables were chosen for testing the relationship between cultural awareness and knowledge of death rituals related to the three subject religions, as shown in Table 1.

**Table 1**

*Study Variables*

<b>Independent Variables</b>	<b>Independent Variable Descriptions</b>	<b>Dependent Variables</b>
Gender	Male Female	Cultural awareness and knowledge of religious death rituals
Age	<18 19 – 23 24 – 28 29 -33 34-38 39- 43 >44	
Raised in a Religious Faith	No Yes	
Practicing a Religious Faith	No Yes	
Country of Birth	Ireland Non-Ireland	
Programme	General and Children’s Nursing General Nursing Psychiatric Nursing Midwifery Intellectual Disability Nursing	
Year of Study	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup> 5 <sup>th</sup>	

## 5.7 Online Survey

The tremendous increase in Internet use and computer-mediated communication in the past decade led to the increased use of online surveys (Nie & Erbring, 2002; Yun & Trumbo, 2000). In the past, creating and administering an online survey was a time-consuming operation

that required knowledge of web publishing applications, HTML code, and scripting programmes. Online survey research became a lot easier and faster in recent years thanks to survey authoring software packages and online survey services, such as Survey Monkey. As the cost of computer hardware and software continued to decrease, and the popularity of the internet increased, larger segments of society utilized the internet for communication and information (Nie & Erbring, 2002), and were, thus, available to potentially participate in online survey research.

### ***5.7.1 Advantages of Online Surveys***

**Access to Unique Populations.** Online survey research took advantage of the widespread use of the internet to gain access to groups and individuals who would be difficult, if not impossible, to reach through other channels. For example, in the current study, the population selected was all undergraduate nursing students in Ireland. However, it would have been impossible for the researcher to reach out to every student in every school to conduct face-to-face interviews. All students were, however, accessible via email through their schools.

**Time.** A student researcher faced time constraints and deadlines. As stated earlier, an online survey can reach large populations in a short amount of time despite geographical distances (Taylor, 2000).

**Cost.** Researchers saved money when moving to an electronic medium from a paper format (Yun & Trumbo, 2000). The costs of printing, postage, interview time, transcription, and data entry could all be avoided. Transcription and data entry costs could be avoided as the online responses were automatically documented by the ZOHO Survey software, which was freely available compared to the estimated cost of a traditional paper survey. Specifically, access to the ZOHO software was provided by Dublin City University.

### ***5.7.2 Disadvantages of Online Surveys***

Along with the many advantages of online surveys, the medium posed unique obstacles not seen in other approaches, although some issues were true for both online and paper surveys. Some disadvantages were:

**Generalising from Sample to Population.** According to Andrade (2020) online survey findings could not be generalized from the sample to the population as a whole. Normally, research findings were of significant scientific value only if they could be generalized. This was only possible if the sample were representative of the population. Two requirements were essential: The first criterion was that the population must be known; it was inappropriate to generalise the results of research conducted with an undefined group. The second criterion was the use of a legitimate sampling method; a method that recruited a sample that was over- or underrepresented for a certain trait could not accurately reflect the population (Andrade, 2020). Commonly, online surveys were delivered through individual emails, mailing lists, and social media sites, making it impossible to identify, comprehend, and describe the population that may have accessed and replied to a broad survey, and this meant it was impossible to generalize findings.

Furthermore, online surveys were often completed only by persons who were literate, had access to the internet, and who were sufficiently interested in a subject, which could indicate either preferential or negative bias. Thus, persons who were literate, with access to the internet, and who were biased were likely to be overrepresented in online survey samples. The survey findings would be, thereby, skewed. Because there was no way of knowing the motives of those who responded to an online survey, there was no way of understanding the extent of bias in online survey findings (Menon & Muraleedharan, 2020). Therefore, the results of online surveys were regarded as tentative when the surveys were distributed to an unknown audience and when voluntary participation in the survey had the potential to result in respondents selecting themselves into the sample with bias.

**Response Rate.** Response to email surveys were found to be highly variable, traditionally in range of 25%-30% (Menon & Muraleedharan, 2020), without follow up reminders or reinforcements. Reasons for a low response could include survey fatigue, competing demands, or privacy concerns (Menon & Muraleedharan, 2020). However, research suggested that response rates could be improved to as much as 60%-70% through shortening questionnaires, multiple follow-up contacts, and by providing incentives (Edwards et al., 2009).

For example, researchers could offer financial incentives or a lottery to overcome the problem of a small response rate (Wright, 2017). A prize or gift certificate could be given by selecting randomly from a pool of respondents, although coupons or books could be more credible (Wright, 2017).

**Online and Paper Surveys.** Many of the problems discussed in online surveys were also present in traditional mailed or paper-based surveys. One could never be certain if the person who was given the questionnaire was the one who completed and returned it. Another disadvantage was respondents could misrepresent their age, gender, and/or other factors, or even their genuine sentiments regarding the survey content (Wright, 2017). According to Wright, the best defence against dishonesty was replication: Only by conducting multiple online surveys with the same or similar sample populations can researchers gain a reliable picture of the characteristics of survey participants (Wright, 2017). As the advantages appeared to outweigh the disadvantages, the researcher in the current study chose an online survey and decided not to offer any incentives to participants because the participants were purposely sampled (undergraduate nursing students in Ireland rather than a broad, general population).

ZOHO Survey was chosen over other online software because it was freely available to Dublin City University (DCU) researchers, as DCU purchased it for research purposes. The ZOHO system came fully loaded with pre-built valuation templates, so conducting and creating an online assessment was easy and accessible in a short period of time (Hinson, 2021). ZOHO facilitated the development of a customised template for a more specific audience, too. Furthermore, it was simple to contact the intended audience via any device using this platform. As not all of the nursing students may have had access to computers at all times, the option to access the survey on a mobile phone was an added advantage. The ability to share documents anywhere, at any time, with ZOHO Survey was only the tip of the iceberg when it came to getting high-quality responses (Techloyce, 2021).

## **5.8 Population and Sample**

Nayak (2010) suggested, in an ideal situation, the entire population should be studied. However, this seemed impossible for the current study. Therefore, a sample size calculation

was essential to help reduce the probability of error, respect ethical standards, define the logistics of the study, and improve the response rate (Martinez-Mesa et al., 2014). Although it was not feasible to include the entire population of undergraduate nursing students in Ireland, because not all 13 Irish schools provided ethics approval to contact their students, having more respondents meant researchers could spend more time collecting and analysing data, extending a project's life (Martinez-Mesa et al., 2014). Collecting more and more comprehensive data from a smaller group of people who were accessible, on the other hand, could be more functional (particularly for a student research project) than collecting data from a larger group. As a result, researchers could select a subset of the total number of potential respondents from whom to collect data (Martinez-Mesa et al., 2014).

The target population selected for the current study was the 5050 undergraduate nursing students studying at eight of the 13 Higher Educational Institutions in the Republic of Ireland, ensuring representation from all four provinces of Ireland. All nursing education programmes were four years long, except the General and Children's Nursing programme was four and a half years. Participants were asked to identify their year of study when they completed their survey, in two designated categories: years 1-3 and years 4-5. The reason for this was because students may have performed better in their final years of study, if they had gained some expertise through education and exposure (encounters). In their clinical settings; they may have had practice and experience with end-of-life care.

### ***5.8.1 Sampling***

Sampling was defined as the selection of a subset of a population of interest in a research study (Turner, 2020). According to Turner, in quantitative research, there were two types of sampling design: probability and nonprobability sampling. Probability sampling, or random sampling, involved using a random selection process to obtain a subset of members or elements of the population. The term random, according to the Cambridge Dictionary (2023), suggested it was something that occurred haphazardly. However, random sampling was anything but haphazard. It was a very systematic, scientific process (Nieswiadomy, 2011). Each element in a sampling frame had the probability of being selected (Turner, 2020). In non–

probability sampling, researchers selected the sample elements from the population using non-random methods. Nonprobability sampling techniques were not intended to be used to infer from the sample to a general population in statistical terms, but can be used to generalize to a larger specific population. Non-probability sampling techniques ensured the sample had the characteristics needed for the study population.

The sampling method employed for the current study was a non-probability sample, purposefully selected. A purposeful sampling technique relied upon the judgement of the researcher when choosing participants as a group to take part in the study. The advantages of purposive sampling were that it was time and cost effective to perform whilst resulting in a range of responses. According to Regoli (2019) it provided researchers with the justification to make a generalization from their sample. It could target niche demographics to obtain specific data points. It allowed researchers to look at the averages in the data. It could glean information from various extremes of population groups. Purposive sampling facilitated a maximum level of variation in the data. The disadvantages were that it resulted in a significant number of inferential statistical procedures that were invalid. It was prone to research bias and to errors of judgement by the researcher. The findings, whilst being potentially broad, would not necessarily be representative (Health Knowledge, 2010; Regoli, 2019).

In the current study all undergraduate student nurses studying in the Republic of Ireland were purposively chosen. Thirteen Higher Education Institutions (HEI's) in the Republic of Ireland offered pre-registration nursing programmes. Eight institutions provided ethics approval to contact their undergraduate nursing students while the other institutions were non-responsive. Therefore, the eight institutions were a convenience sample of HEIs in the Republic of Ireland. The total population of undergraduate nursing students in all programmes at the eight HEIs was N=5050.

As this study was concerned with caring for only adult patients (above 18 years of age) at their time of death, the inclusion of midwifery students or nursing students focused on children was considered carefully in advance. The rituals practised for those patient populations could be different. However, after considerable thought, the researcher decided to include

midwifery students and children's nursing students as both populations were also taught to care for adult patients. Midwifery nurse specialists cared for adult women, and children's nursing students took a combined programme. The participants identified their programme in the course of the research. Thus, the researcher chose all five divisions in the undergraduate nursing programmes.

The advantages of purposeful sampling in terms of the current study, was that it increased the probability of the sample being representative and was more likely to ensure an adequate number of participants. Although it could have been costly, and statistics were likely to be more complicated to analyse (Nieswiadomy, 2011), the researcher in the current study was familiar with the population.

### ***5.8.2 Sampling Criteria***

Quantitative researchers use inclusion and exclusion criteria to define sample parameters. The inclusion criteria for a sample referred to those who were eligible to participate, whereas the exclusion criteria were the characteristics that disqualified some individuals from the study.

- **Inclusion Criteria.** All enrolled undergraduate student nurses from all five divisions of the Nursing and Midwifery Board of Ireland (NMBI) programmes at HEIs which provided approval to contact their students.
- **Exclusion Criteria.** Any student not registered as a student nurse under NMBI was excluded from the study. Any student who had previously been invited to participate in the Pilot Test (n=200) was excluded from the study.

### ***5.8.3 Calculating Sample Size***

Sample size calculation was a very important aspect of the study, to be calculated in the planning phases (Nayak, 2010). In the current study, the population selected were the undergraduate nursing students studying in the eight Higher Education Institutions (HEIs) in the Republic of Ireland shown in Table 2.

**Table 2***Total Population Size*

School	Number of Participants
Dublin City University	970
National University of Ireland, Galway	491
St Angela's College	316
University College Dublin	1039
Trinity College, Dublin	1108
University of Limerick	463
Letterkenny Institute of Technology	305
Dundalk Institute of Technology	358
<b>Total</b>	<b>5050</b>

The sample needed from the target population was calculated as follows:

1. **Population Size:** The total population of undergraduate nursing students studying in eight HEIs in the Republic of Ireland (N=5050).
2. **Margin of Error (Confidence Interval):** No sample would be perfect so the margin of error or the confidence interval was taken into consideration.
3. **Confidence Level:** The researchers' confidence that the actual mean fell within the confidence interval. The most common confidence intervals were 90% confident, 95% confident, and 99% confident.
4. **Confidence Level Corresponding to Z-score:** This was the constant value needed for the calculation.
5. **The Z-scores** for the most common confidence levels were:
  - + 90% – Z Score=1.645
  - + 95% – Z Score=1.96
  - + 99% – Z Score=2.326
6. **Population Proportion:** How much variance was expected in the responses? Prior to administering the survey, it was a safe decision to use 0.5 (95%), the most forgiving number which ensured that the sample would be large enough.
7. **Sample Requirement:** It was determined that a sample of 358 participants was needed.

The sample size (n) was calculated according to the following formula:



$$n = \frac{z^2 * p * (1 - p) / e^2}{1 + (z^2 * p * (1 - p) / (e^2 * N))}$$

Where:  $z=1.96$  equalled a confidence level ( $\alpha$ ) of 95%

$p$ = proportion (expressed as a decimal)

$N$ = population size,  $e$ =margin of error.

$z= 1.96$ ,  $p=0.5$ ,  $N=5050$ ,  $e=0.05$

$$n = \frac{1.96^2 * 0.5 * (1 - 0.5) / 0.05^2}{1 + (1.96^2 * 0.5 * (1 - 0.5) / (0.05^2 * 5050))}$$

$$n=358$$

#### **5.8.4 Participants**

The participants selected for the current study included undergraduate nursing students studying at eight Higher Educational Institutions (HEIs) in Ireland ( $N=5050$ ). Study participants undertook nursing training from all five of the different programmes at those schools, including General Nursing, Children's and General Nursing, Psychiatric Nursing, Intellectual Disability Nursing, and Midwifery.

#### **5.9 Site Access and Recruiting Strategy**

Access to all 13 schools in Ireland having undergraduate nursing programmes was sought by applying to each for ethics approval, to recruit their students and conduct the current study. Eight HEIs provided access to their students. Following ethics approval from each of the schools, the researcher initially had planned to physically visit the students in the different schools, telling them about the project and asking them to participate in the survey. Personally, visiting students in their schools and explaining the benefits of the research to students was hoped to add a personal touch and to be encouraging rather than just sending a survey for students to complete. However, extensive travel around Ireland was not possible so a gatekeeper (the Head of each school or department) helped with the email recruitment process as described herein. A gatekeeper was a person who stood between the data collector in a study and the potential respondents.

The plan was for the researcher to contact the gatekeeper to facilitate emailing the survey to the participants. The gatekeeper would circulate a plain language statement (Appendix G) about the study, inform students regarding the study, and include the consent

form (Appendix H) and the online survey link. With this information presented, students were to be asked whether they consented to undertake the current study (yes or no). The participants would not be able to continue with the survey until consent was completed.

This procedure would ensure the researcher did not have contact with the participants directly during recruitment, at any point in the study or thereafter. The researcher would have no access to respondent identity at any time. The names and details of the participants were kept confidential by the institution. The survey was anonymous and was coded only on return of the questionnaires for SPSS-2021 analysis.

### **5.10 Data Collection**

Data collection was a precise, systematic gathering of information relevant to the research purpose, the specific objectives, or hypotheses of a study (Burns & Grove, 2009). Data collection should be objective, systematic, and repeatable (Gerrish & Lacey, 2013). A researcher can use a questionnaire to collect data. Questionnaires can require written or verbal replies to a written set of questions. It can be a quick, convenient and inexpensive method of collecting standardised information (Jones & Rattray, 2007). The methods of data collection selected for the current study included an online survey created via ZOHO (survey software), but it became necessary to use a paper-based survey thereafter due to a low initial response rate.

The survey included four sections: demographic information, the mCAS, education and experience, and knowledge of religious death rituals (see Table 3). However, the problem with developing one's own questionnaire was that it was complex and time-consuming, and had to be checked for validity and reliability in order to make statistical inferences and generalise findings (LoBiondo-Wood & Haber, 2016). This was done in the current study as described in Chapter 6.

### **5.11 Measurement**

Rew et al. (2003) developed and measured a cultural awareness scale (CAS) in the USA by engaging with 190 nursing students studying at a single university. The authors measured for content validity, structural validity, internal consistency, and construct validity. A number of researchers tested the CAS around the world thereafter, according to the literature

reviewed for the current study. Osmancevic et al. (2020) conducted a systematic review of 44 studies to appraise the psychometric properties of instruments used to measure the cultural competence of nurses. Of the total of 44 studies, descriptions of 21 instruments were found. The instruments had been tested for validity in some context, but seldom tested for reliability. Many of the questionnaires were used in clinical or hospital settings with nurses and nursing students at the university level. Of all the scales reviewed, the cultural awareness scale was the most frequently examined instrument, followed by a self-efficacy scale and a transcultural self-efficacy tool. A partial list showing some of the studies mentioned by Osmancevic et al. reviewed by the researcher in the current study include, in descending chronological order:

- Ličen et al. (2021) conducted a cross sectional study to measure cultural awareness among Slovenian nursing students.
- Halabi and DeBeer (2018) measured cultural competence on nurses and nursing students five subscales: cultural desire, awareness, skill, knowledge and the number of encounters.
- İz and Temel (2016) measured cultural awareness on 197 Turkish students and tested for content validity, structural validity, and internal consistency.
- Hadziabdic et al. (2016) measured cultural awareness on 158 Swedish students, and tested for content validity, structural validity, internal consistency.
- McElroy et al. (2016) measured cultural awareness on 335 university students, and tested for internal consistency and construct validity.
- Rew et al, (2014), reanalysed the scale on 150 students at a university, measuring for structural validity, internal consistency, construct validity.
- Olt et al. (2010) measured cultural competence on nurses and nursing students on five subscales: cultural desire, awareness, skill, knowledge and encounters (a 25- item questionnaire).
- Krainovich-Miller et al. (2008) measured cultural awareness on 236 students in USA, and tested for internal consistency reliability.

The researcher in the current study used two instruments: the Cultural Awareness Scale developed and reanalysed by Rew et al. (2014), which was modified with permission (mCAS), along with the Knowledge Questionnaire (KQ) developed by the current researcher specifically for this study. The complete measurement instrument sent to the sample population, including those two tools, consisted of four sections as shown in Table 3.

**Table 3**

*Knowledge Questionnaire Contents*

Questionnaire Sections	Number of items
Personal and demographic questions	7
Modified Cultural Awareness Scale	32
General educational experience	9
Knowledge of Religious Death Rituals	23

The knowledge questionnaire developed for the current study was the fourth section of the overall survey and included four areas of focus: knowledge relating to religious symbols, knowledge relating to religious death beliefs, knowledge of death rituals related to last rites, and knowledge related to religious practices.

### 5.12 Data Analysis

The survey data in the current study was analysed using a computer software programme, the IBM Statistical Package for the Social Sciences (SPSS), Version 28. In consultation with a statistician (through personal outreach), the researcher analysed the data to determine the validity of the questionnaire by checking for the content validity index (CVI). To test the reliability of the questionnaire, Cronbach's alpha coefficients were tested for the total scale (reliability estimates).

Descriptive, correlational and inferential statistics were used to analyse the relationships between demographics, cultural awareness, and knowledge. Descriptive analyses and inferential analyses were conducted, such as hypothesis testing through independent t-tests and ANOVA. Psychometric testing of the mCAS included reliability measurements using Cronbach's alpha coefficient and exploratory factor analysis to support the construct validity of the mCAS and validity (face and content validity). Psychometric testing of the knowledge

questionnaire included reliability measurement using Cronbach's alpha coefficient. Multiple response analysis and open responses were captured through an open-ended question.

Descriptive statistics indicated the demographic characteristics of the sample. Measures of central tendency and dispersion demonstrated group mean scores and established the distribution of nursing students on two respective scales. Higher mean scores indicated a higher level of knowledge and cultural awareness, while lower mean scores indicated lower levels of knowledge and cultural awareness within the group.

Inferential statistics were used to identify any differences between the scores on the two scales based on demographics such as age, gender, place of birth, whether raised in or practicing a religious faith, year of study, and programme of study. Parametric tests, such as t-tests, one-way between groups ANOVA, and post hoc tests, facilitated between-group exploration. A correlational analysis was performed using the Pearson product-moment correlation coefficient to establish the direction (positive or negative) and strength of the relationship between the mCAS and the KQ instruments.

### **5.13 Ethics Considerations**

A Research Ethics Committee (REC) assessment was carried out with regard to the current study. Based on the Dublin City University (DCU) REC flow chart (DCU, 2020), the level of approval was expedited. In Appendix I, Figures I1-3 include the ethics approval letters received at various points during study development from Dublin City University Research Ethics Committee. The first letter (Figure I-1) was dated January 26, 2022, providing initial approval for the project. The subsequent letters (Figure I-2 and Figure I-3) provided approval as the project was amended. The first amendment was sought (received May 2022) when there was a change from using the Knowledge Questionnaire (KQ) and an attitude scale, to using the KQ and the mCAS. The second amendment (November 2022) was necessary to include paper surveys to follow online surveys when the online survey response did not meet the calculated minimum sample population.

The following three factors were considered by the REC: the vulnerability of the participant group, the methods used, and the nature of the research itself (DCU, 2020). The

study was reviewed to justify the level of ongoing review needed, and the risks to the population during implementation. The following was also considered: whether the study collected participant knowledge; whether participants were identifiable; whether sensitive questions could lead participants to have strong reactions; whether private information was collected; and whether the research process would create a burden for the participants due to the time commitment required. Additional considerations included: whether the category was suitable for some, but not all; and whether the project involved participants who were in a dependant relationship with the researcher, such as professionals and patients, supervisors and employees, or educators and students (DCU, 2020). All of these possible ethics concerns were satisfactorily resolved in advance of study implementation.

Even so, if a study participant felt distressed at any time during the study, they were advised to contact the researchers and to consult their General Practitioner (GP) if they needed to speak with a health professional. Thus, the researcher in the current study reflected on the potential for risks entailed by those students participating in it. The main risk was determined to be simply the inconvenience and time commitment with regard to answering the questionnaires. The student nurses were given every opportunity to decline answering the survey and were also advised that there were no negative consequences for not answering or completing the survey. Thus, the study was considered low risk and was approved to go forward (Appendix I, Figure I-1) by DCU on January 26, 2022. As mentioned, two amendments were also approved thereafter (Figures I-2 and I-3), with the final amendment approved November 17, 2022.

Additional ethics approval was sought and received from each of the other seven HEI's where the nursing students were to be recruited in Ireland. The names of all eight of the HEI's from which approval was obtained included six universities and two institutes of technology:

- Dublin City University (DCU)
- University College Dublin (UCD)
- National University of Ireland Galway (NUIG)

- St Angela's College
- Trinity College Dublin (TCD)
- University of Limerick (UL)
- Letterkenny Institute of Technology
- Dundalk Institute of Technology (DKIT)

#### **5.14 Chapter Summary**

This chapter provided a detailed overview of the design of the study. The rationale for the methodological choices was discussed as relating to the aims and objectives of the study. Ethics considerations were discussed and approval received from all institutions whose students involved in the study. The next chapter outlines the development of the knowledge questionnaire designed for the current study.

## **Chapter 6: Instrument Development and Validation**

The purpose of Chapter 6 was to provide an overview of tool development and validation. Instrument development began in the late fall of 2021 and evaluations took place in spring of 2022, including a pilot test. A thorough examination of the development process for the two instruments used in the current study (mCAS and KQ) was organised into the following sections: (6.1) overview; (6.2) introduction to the KQ; (6.3) design of the KQ; (6.4) advisory committee input to the KQ; (6.5) KQ pilot test; (6.6) mCAS psychometric testing; (6.7) normality of the scales; (6.8) conclusions; and (6.9) chapter summary.

### **6.1 Overview**

#### ***6.1.1 The Modified Cultural Awareness Scale (mCAS) Development Process***

Two instruments were used in the current study. First, the modified Cultural Awareness Scale (mCAS) used in the current study was developed (with permission) based upon Rew et al.'s 2014 version of the scale. The CAS had 36 questions but only 32 were utilized in the current study because the others related to research issues, which were irrelevant to the undergraduate student population. The mCAS developed for the current study (32 questions) was tested for reliability by computing the Cronbach's alpha coefficient for internal consistency, and tested for validity by checking the construct validity through exploratory factor analysis. After the national survey was completed, a factor analysis did not properly load five of the questions, so only 27 were utilized in the statistical analyses conducted thereafter. The Knowledge Questionnaire (KQ), which was created for the current study, entailed a much more in-depth development process.

#### ***6.1.2 The Knowledge Questionnaire (KQ) Development Process***

Second, the Knowledge Questionnaire (KQ), was developed by the researcher in the current study. Development was inspired by a study conducted by Fink et al. (2014), that used a multiple-choice questionnaire (the Spiritual Care at the End-of-Life Questionnaire) to measure nursing student perceptions and knowledge as related to spiritual care at the end-of-life with regard to three world religions: Catholicism, Judaism, and Islam. As described in Chapter 1 of the current study, the Fink et al. (2014) study evaluated student knowledge and



confidence after adding a simulation experience to the curriculum. The tool (KQ) developed for the current study did not do this. It was significantly different in approach and content, and underwent thorough testing for validity and reliability, as well as question essentiality and clarity as described in this Chapter.

The following is a brief step-by-step sequence providing an overview of the development and validation procedures utilized (prior to statistical validation) with the KQ instrument. Each step was detailed further in subsequent sections of this Chapter:

1. An in-depth literature review was conducted specifically to generate potential knowledge topics from which to formulate questions.
2. Eleven religious experts were contacted informally for unstructured interviews to explore religious death rituals in detail and to generate knowledge questions.
3. An advisory committee of six experts was recruited, with the help and approval of the doctoral supervisor, to review the preliminary KQ.
4. A pilot test was conducted with a sample population of 200 invited participants studying in their final year at one university, of which 68 responded and all provided completed questionnaires.
5. Statistical testing and analysis took place with regard to content validity, face validation, and reliability, as described in detail later in this Chapter.
6. After testing, the national survey was completed and the findings analysed. This Pilot Test sample was excluded from the national survey.

### ***6.1.3 Overview of the Survey Design Process***

There were four sections to the survey design, as follows: Section 1 and Section 3 contained the independent variables which were predicted to have an effect on perceived level of general cultural awareness and specific knowledge of death rituals. In other words, the current study explored the relationship between demographic data and education and experience to the process of acquiring knowledge and cultural competence. The current study also explored how demographic data correlated to education and experience.

1. Section 1- demographic data (for example: age, gender, birthplace, religious background, year of study, programme of study),
2. Section 2- cultural awareness scale (mCAS),
3. Section 3- education and experience with regard to caring for person of a different culture/religion when death is imminent or at the time-of-death,
4. Section 4- knowledge (KQ) of religious death rituals (Christianity, Islam and Hinduism).

All four sections combined comprised the complete questionnaire sent to the full population of 5050 nursing students in all five types of nursing programmes at eight of the 13 universities in Ireland which had undergraduate nursing programmes, ensuring representation from all four provinces of Ireland. All 200 of the final-year students graduated prior to the national study and their 68 surveys were excluded from the national study.

## **6.2 Introduction to the Knowledge Questionnaire**

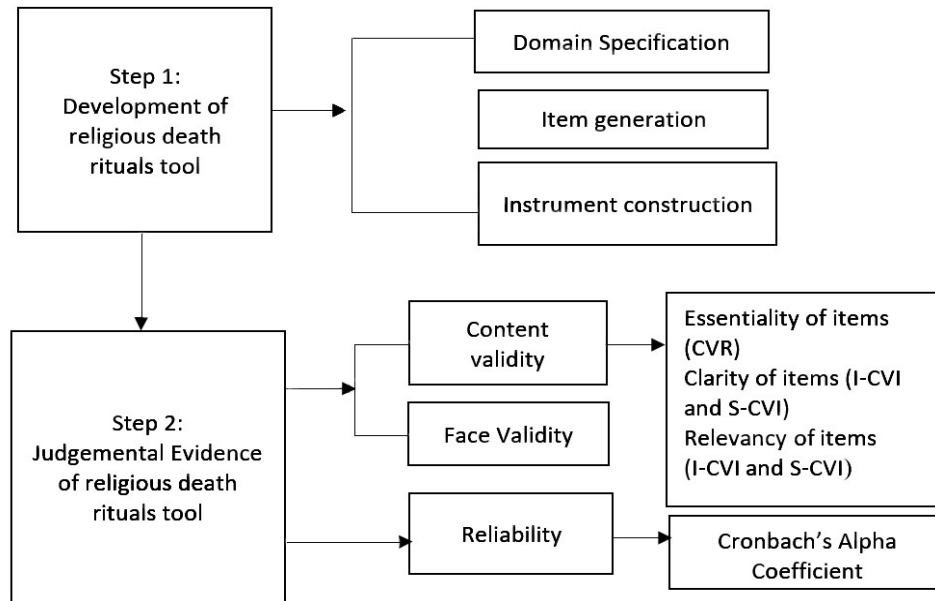
Section 4 of the quantitative national survey, the KQ, was titled the Questionnaire on Religious Death Rituals for use with the target population. It was designed following a two-step process described by Zamanzadeh et al. (2014), Rodrigues et al. (2017), and Stein et al. (2007). The design process, illustrated in Figure 3, involved (Step One) developing and (Step Two) testing the tool by obtaining judgemental evidence as described in more detail in the following sections of this Chapter. Step Two, obtaining judgmental evidence, was implemented through examination by an advisory committee of six experts with regard to each questions' clarity, relevance, and essentiality for inclusion. The tool was then pilot tested for validity and reliability.

Figure 3 was intended to provide a diagrammatic presentation of Step One and Step Two of the KQ design, illustrating how the two steps integrated within the instrument development process. The two-step process included a three-step procedure: 1) content and domain specification, 2) item generation, and 3) instrument construction. Figure 3 acronyms:

- the content validity index (CVI)
- the content validity ratio (CVR)

**Figure 3**

*The Validation Process*



*Note.* Descriptions in Zamanzadeh et al. (2014) and Rodrigues et al. (2017) were used to create the Figure, although those authors and Stein et al. (2007) were referred to in discussing the validation of the tool as stated in the section describing this Figure.

The computations and process of ensuring the reliability and validity of the KQ were discussed in more detail in sections on those topics later in this Chapter. However, the computations were, briefly:

- CVI was computed using the item-CVI (I-CVI) and the Scale-level-CVI (S-CVI) (Zamanzadeh et al., 2014).
- The CVR was calculated as follows:  $CVR = (N_e - N/2) / (N/2)$ , where  $N_e$  was the proportion of experts who rated a particular item as essential, and  $N$  was the total number of experts (Lawshe, 1975; Zamanzadeh et al., 2014).

As mentioned earlier, each item to be included in the instrument was given a score by each of six experts based on item clarity, relevance, and essentiality for inclusion in the knowledge questionnaire. The evaluation processes were described in more detail later in this chapter.

### **6.3 Step One: Knowledge Questionnaire Design**

#### ***6.3.1 Content Item Generation***

In this step, items for data collection were drawn from the literature and by engaging informally with different religious experts belonging to the three religions (Christianity, Islam and Hinduism).

#### ***6.3.2 Literature Review***

A selection of relevant literature was generated from a search conducted in different databases, including the Cumulative Index to Nursing and Allied Health Literature (CINHAL), Medline, Academic Search Complete, PubMed, PsycINFO and Cochrane Library. A search of the Internet was also conducted to locate relevant open-source literature, such as policy documents and reports published on the topic. Previous questionnaires related to this topic were reviewed (particularly, Fink et al., 2014). Content identified as most relevant to the care that nurses provided at the time of imminent death and at time-of-death in a hospital setting as related to religious rituals was selected for further in-depth review. There were four domains identified in the literature (Health Services Intercultural Guide, 2021) specifically with the aim of developing the KQ: belief in God and the ritual of prayer; rituals related to last rites; washing and touching of a dead body; and the various religious symbols used by the three religions. After identifying relevant materials, questions related to the content were generated.

#### ***6.3.3 Religious Expertise***

The hospital where this researcher practiced kept a list of appropriate persons that staff were required to contact when death was imminent or at the time-of-death of a patient. The list contained contact numbers and email addresses for clerical personnel for many different religions. A total of 11 religious' experts in the Dublin area were contacted to advise with regard to content and item generation, including a Hindu priest; a Muslim Imam; three Catholic priests, a Protestant pastor, three Christian priests, and two hospital chaplains belonging to the Christian religion. Unstructured informal interviews (with only verbal consent) of 20-45 minutes were conducted with each individual expert.

## **6.4 Step Two: Advisory Committee, Content Validity, Reliability**

Step Two focused on seeking evidence to ensure the questions on the KQ were clearly worded, well defined, and covered important topics related to religious death rituals of the three selected religions. According to DeVon et al. (2007), new tools must be thoroughly tested to ensure validity and reliability.

### ***6.4.1 Advisory Committee: Six Experts***

The largest feasible pool of prospective items for the questionnaire were then evaluated by content experts (Netemeyer et al., 2003) consistent with the recommendations from Stone (1993). Six experts were recruited with the approval and assistance of the doctoral supervisor in the current study to form an advisory committee and provide feedback on the preliminary version of the knowledge questionnaire (KQ) developed for the current study. The experts held relevant career positions as an End-of-Life Coordinator, Palliative Care Nurse, Chaplain (in a hospital setting), a Full Professor, and two Associate Professors of Nursing Education.

Experts reviewed the KQ three times and provided feedback in three contexts:

- the format of the questions;
- face validity (grammar, syntax, organisation, appropriateness, logic); and
- a content validity survey.

### ***6.4.2 Likert Scales vs. Multiple-Choice (Expert Evaluation)***

Initially, the KQ was constructed using Likert scales to measure knowledge levels. However, after the advisory committee reviewed individual items, they suggested that it was easy to guess the answer without actually knowing the subject. Hence, to measure knowledge objectively, the researcher chose a multiple-choice questionnaire format to more accurately measure the level of knowledge. Although knowledge could be measured both subjectively and objectively, measuring objectively minimized bias due to the highly subjective nature of the knowledge and concepts, as well as the use of a self-reporting questionnaire (Wasner et al., 2005). Hence, the multiple-choice type questions were utilized as they were the most objective of the various cognitive measures, were considered the most reliable, and they had the greatest

utility in measuring knowledge (Waltz et al., 2010). Each multiple-choice question included four response options, the fourth being "I don't know". By providing this option, students were given a chance to answer honestly to the question rather than having to guess even if they did not know the answer.

#### **6.4.3 The 23 Questions of the KQ**

Twenty-three questions were finalised for the Knowledge Questionnaire on Religious Death Rituals. These 23 questions were related to religious beliefs, last rites, cleaning and washing of the body after death, and religious symbols used by the three religions (Christianity, Islam, and Hinduism). Within the 23 questions, the following parameters were utilized:

- three questions were about death but not specific to any religion,
- the remaining 20 questions were related to the three religions,
- a total of 22 multiple-choice questions were developed, and
- one open-ended question asked students what resources they used to learn about religious death rituals.

#### **6.4.4 Face Validity (Expert Evaluation)**

Face validity and content validity were measured to validate the newly developed tool. In checking the KQ for face validity, the six experts conducted evaluations by subjectively ensuring the tool measured what it was intended to measure (knowledge). They checked grammar, syntax, organisation, appropriateness, and assured the instrument flowed logically (Netemeyer et al., 2003; Schultz & Whitney, 2005). It was suggested that the word 'patient' be changed to 'person', which was done throughout. Additional suggestions were a) to change or rephrase wording or a question, b) to correct English language grammar or typographical errors, c) to change multiple-choice options, d) to add more specificity and e) more specific questions.

Example question (original): The nurse caring for a Hindu person notices the person wearing sacred items like sacred threads or jewellery. The nurses should:

- a. Remove them
- b. Never remove them
- c. Remove them with permission
- d. I don't know

Example question (revised): The nurse caring for a Hindu person notices the person wearing sacred items like sacred threads or tulsi beads around the neck. If for medical reasons it is necessary to remove the beads, the family wishes that nurses retie the beads or threads to the person's:

- a. Wrist (preferably left)
- b. Wrist (preferably right)
- c. Ankle (preferably right)
- d. I don't know

Example question (added): The common symbol chosen by people belonging to Christian denominations such as Latter-Day-Saints, First Church of Christ, Scientist (also known as Christian Science), Jehovah's Witnesses, and Seventh-day Adventist Church as part of their death ritual in a hospital setting is:

- a. Plain cross
- b. Crucifix
- c. No religious symbols or icons
- d. I don't know

#### **6.4.5 Content Validity (Expert Assessment)**

Content validity was considered a prerequisite for other tests of validity and, therefore, received the highest priority during instrument development (Waltz et al., 2010). The content validity index (CVI) and the content validity ratio (CVR) were computed in this study using an empirical method. As stated earlier, CVI was computed using the item-CVI (I-CVI) and the scale-level-CVI (S-CVI) (Zamanzadeh et al., 2014). CVR was used to measure the essentiality of the items. A higher CVR score indicated greater panellist agreement; the scale ran from 1 (one) to -1. The CVR was calculated as follows:  $CVR = (N_e - N/2) / (N/2)$ , where  $N_e$  was the proportion of experts who rated a particular item as essential and  $N$  is the total number of experts (Lawshe, 1975; Zamanzadeh et al., 2014). Each item in the instrument was given a score based on its clarity, relevance, and essentiality for the knowledge questionnaire from a group of six experts holding relevant career positions as described earlier.

The content validity evaluation form sent to the six experts was accompanied by a brief introductory email and instructions (Appendix J). Experts were given an evaluation form containing four areas for evaluation to determine whether the questionnaire elements were relevant, clear, and essential to the study, and whether or not they needed improvement. The six experts gave their professional subjective assessment of each item on the KQ based on their

expertise and experience. Their feedback was used to determine whether items should be retained, rejected or modified. The following scales were used to rate the questionnaire.

- The relevance of each question in the KQ (how important the question was to be prioritized) was rated on a four-point Likert scale: (1=not relevant, 2=somewhat relevant, 3=quite relevant, 4=highly relevant).
- The clarity of each question (whether the wording was clear) was also rated on a four-point scale: (1=not clear, 2=somewhat clear, 3=quite clear, 4=very clear).
- 3.The essentiality of each item (how necessary the item was to answer the research questions) was rated on a three-point scale: 1=not essential, 2=useful but not essential, and 3=essential (Armstrong et al., 2005; Zamanzadeh et al., 2014).
- Recommendations were sought with regard to potential improvements regarding each item on the KQ.

Specifically, following feedback from the advisory committee:

- Q1 and Q2 were rephrased.
- Q4 was modified and optional responses changed.
- Q10 and Q11 were added.
- Q12 was made more specific.

Questions related to Hinduism and Islamic religions were rephrased and modified based on feedback from the advisory committee as well. Table 4 illustrated the feedback on each question along with additional data as indicated in the following sections.

#### **6.4.6 Content Validity Index (Clarity)**

The six experts provided ratings for the KQ tool on a 4-point scale. In Table 4, each of the 23 items in the KQ were shown as serial numbers (1-23) in the left column. The total number of experts who agreed on the clarity of each item were identified (EX1-6). The proportional relevance for columns EX1, EX2, and EX3 was 23/23 items =1, and for column EX4, EX5 and EX6 was 22/23 items =0.95. The total I-CVI was 22.49/23=0.97 and the total S CVI-UA was 20/23=0.869.



**Table 4***Expert Responses (1)*

Serial Number	EX 1	EX 2	EX 3	EX 4	EX 5	EX 6	Total Experts in Agreement	I-CVI	UA/SCVI
1	3	4	3	4	3	4	6	1	1
2	3	4	4	3	4	4	6	1	1
3	4	3	4	4	4	4	6	1	1
4	3	4	3	3	1	3	5	0.83	0
5	4	4	3	3	4	4	6	1	1
6	3	4	4	2	4	4	5	0.83	0
7	4	3	3	4	4	3	5	1	0
8	4	4	4	4	4	3	6	1	1
9	4	4	4	4	4	4	6	1	1
10	3	4	4	4	4	4	6	1	1
11	3	4	4	3	4	2	5	0.83	0
12	4	3	3	3	4	4	6	1	1
13	3	3	4	4	4	4	6	1	1
14	4	4	4	4	4	3	6	1	1
15	4	4	4	4	4	3	6	1	1
16	3	4	4	4	4	4	6	1	1
17	4	3	4	3	4	4	6	1	1
18	4	4	4	3	4	4	6	1	1
19	4	4	4	3	4	3	6	1	1
20	3	4	4	4	4	4	6	1	1
21	3	4	4	4	4	4	6	1	1
22	4	3	4	4	4	4	6	1	1
23	4	3	4	4	4	4	6	1	1

**6.4.7 Calculating the Content Validity Index or Item Content Validity Index**

The I-CVI was the number of experts in agreement divided by the number of total experts (six) participating. Questions four, six, (4, 6) and 11 had an I-CVI of 0.83, and the rest of the items had a score of one (1). To calculate the universal agreement (UA), a score of one (1) was assigned to each item that achieved 100% agreement, and a score of zero (0) was assigned to any item that achieved less than 100% agreement by the six experts assessing each of the 23 items in the knowledge questionnaire.

- Questions four, six (4, 6) and 11 scored zero (0) because not all experts agreed that those questions were clear and understandable. The rest of the questions scored one (1), signifying that they were clear.
- S-CVI Average (based on I-CVI): the average of ICVI scores across all items

- S-CVI Average  

$$(1+1+1+0.83+1+0.83+1+1+1+1+0.83+1+1+1+1+1+1+1+1+1+1)/23=0.97$$
- Proportion relevance (PR) was the number of an item agreed by the expert for clarity, given a score of 1 (one) and a score of 0 (zero) if not clear. For example, in domain knowledge, the PR for expert 1= (23/23=1).
- Scale-level content validity index average (S-CVI) (based on proportion relevance was): the average of proportion relevance scores across all experts divided by the total number of experts) was  $1+1+1+ 0.95+ 0.95+0.95/ 6 \text{ experts} = 5.85 /6=0.97 \text{ CVI} .$
- Therefore, the score S-CVI Average based on proportion for clarity was =0.9.
- SCVI UA: the average of UA scores across all items (20) divided by the total of items= $20/23=0.869$ .
- Total I CVI for the overall scale=0.97.

Based on the above calculations, it was concluded that the S-CVI average was based on I-CVI, the S-CVI average was based on proportion relevance, and the S-CVI UA average met satisfactory levels. Thus the questionnaire had achieved a satisfactory level of content validity (Shi et al., 2012).

#### ***6.4.8 Calculating the Content Validity Index for Relevance***

The six expert ratings on a 4-point scale for each of the 23 items relevance (Table 5). Again, I-CVI was the number of experts in agreement divided by the number of total experts. All experts agreed on the relevance of each item, as illustrated. The proportional relevance total for Columns EX1- EX6 for all 23 items was one (1). The total I-CVI and the total S CVI-UA were  $23/23=1$ . When calculating the universal agreement (UA), the following was true:

- A score of one (1) was assigned to the item that achieved 100% agreement, and a score of zero (0) was assigned to the item that did not achieve 100% experts in agreement.
- S-CVI Average (based on I-CVI): the average of I-CVI scores across all items
- S-CVI Average  $(1+1+1+1+1+1+1+1+1+1+1+1+1+1+1+1+1+1+1+1)/23=1$

- Proportion relevance (PR) was the number of items agreed upon by the experts in terms of relevance, given a score of 1 (one) if relevant and a score of 0 (zero) if not relevant. For example, in domain knowledge, the PR for expert #1= (23/23=1).
- Scale-level content validity index average (S-CVI) (-based on proportion relevance is): the average of proportion relevance scores across all experts divided by the total number of experts: that was  $1+1+1+1+1+1 / 6 \text{ experts} = 6 / 6 = 1 \text{ SCVI}$
- Therefore, the score S-CVI Average based on proportion for relevance was =1
- SCVI UA: the average of UA scores across all items (23) Divided by the total of items=23/23=1.
- Total I CVI for the overall scale =1.

**Table 5**

*Expert Responses (2)*

Serial Number	EX1	EX2	Ex3	Ex4	Ex5	Ex6	Total in Agreement	I-CVI	UA/S-CVI
1	4	4	4	4	4	4	6	1	1
2	4	4	4	4	4	4	6	1	1
3	4	4	4	4	4	4	6	1	1
4	4	4	4	3	3	3	6	1	1
5	4	4	4	4	4	3	6	1	1
6	4	4	4	4	4	4	6	1	1
7	3	4	4	4	4	4	6	1	1
8	4	4	4	3	4	3	6	1	1
9	4	4	4	3	4	4	6	1	1
10	4	4	3	3	4	4	6	1	1
11	4	4	4	4	4	3	6	1	1
12	3	4	4	4	4	4	6	1	1
13	4	4	4	4	4	4	6	1	1
14	4	4	4	4	4	4	6	1	1
15	4	4	4	4	4	3	6	1	1
16	4	4	4	4	4	4	6	1	1
17	3	4	4	4	4	3	6	1	1
18	4	4	4	4	4	3	6	1	1
19	4	4	4	4	4	3	6	1	1
20	4	4	4	4	4	4	6	1	1
21	4	4	4	4	4	4	6	1	1
22	3	4	4	4	4	4	6	1	1
23	4	4	3	4	4	3	6	1	1

Based on those calculations, it was concluded that the S-CVI AVE based on I-CVI, S-CVI average based on proportion relevance, and S-CVI UA Average met satisfactory levels, and thus the questionnaire had achieved a satisfactory level of content validity (Shi et al., 2012).

According to criteria recommended by Lynn (1986) and Shi et al., (2012), it was concluded that the S-CVI average based on I-CVI, S-CVI average based on proportion relevance, and S-CVI UA /average met a satisfactory level, and thus the scale of the questionnaire had achieved a satisfactory level of content validity.

#### ***6.4.9 Content Validity Ratio for Essentiality***

The CVR was calculated as follows:  $CVR = (N_e - N/2) / (N/2)$ , where  $N_e$  was the proportion of experts who rated a particular item as essential and  $N$  was the total number of experts (Lawshe, 1975; Zamanzadeh et al., 2014). All six of the experts completed their assessments and rated each of the 23-items measuring knowledge as essential. Therefore, based on the formula  $CVR=1$ , all the questions were essential.

#### ***6.4.10 Content Validity Results***

The content validity of the KQ tool was tested in terms of how it related to the content validity ratio (CVR) and the content validity index (CVI). The content validity ratio (CVR)=1. The item content validity of the tool (I-CVI) for clarity was  $I-CVI=0.97$ , and the scale content validity index/universal agreement (S-CVI/UA) =0.86. For relevance, the item content validity of the tool (I-CVI)=1 and the scale content validity index/universal agreement (S-CVI/UA)=1. Reliability was tested by checking Cronbach's alpha coefficient, which was 0.74 for the entire KQ tool.

### **6.5 Knowledge Questionnaire (KQ) Pilot Test**

The researcher in the current study sought evidence of the questionnaire having a sound internal structure. This step involved assessing evidence based on the responses to the knowledge questionnaire. The pilot test was implemented as planned. A purposive sample of 200 undergraduate nursing students in their final year of study at one university in Ireland were invited to participate in the pilot test. An invitation letter, plain language statement, and informed consent accompanied the questionnaire, which was sent both by email and forwarded

by the gatekeeper. A total of 68 students responded and all completed the study questionnaires, which was a significant 34% response rate. All of the 200 final-year students graduated prior to the national study and the 68 surveys were excluded from the national study.

#### ***6.5.1 Reliability, Content Validity***

The KQ was comprised of 22 multiple-choice questions and one open-ended question (not included in the analysis), for a total of 23 questions. Each correct answer was coded as one (1) and each incorrect answer was coded as zero (0). Totals were then computed using Cronbach's alpha for the internal consistency reliability using Statistical Package for the Social Sciences (SPSS), version 28 (IBM Corp). Overall, as demonstrated in the following sections, all of the questions were considered essential. All experts agreed on the clarity of each item. The questionnaire had achieved a satisfactory level of content validity (Shi et al., 2012) and was said to be reliable.

#### ***6.5.2 Reliability Results***

The internal consistency of the Knowledge Questionnaire (KQ) tool was calculated by checking Cronbach's alpha coefficient through a sample of 68 undergraduate nursing students from April 2022 to May 2022. Reliability statistics generated by SPSS indicated Cronbach's Alpha was .747 for  $n=22$ . According to the literature, if Cronbach's value for the entire scale was above 0.7, it was considered acceptable (0.73-.0.95) (Gliem & Gliem, 2003; Taber, 2018).

Hence, the questionnaire was said to be reliable. Although the total survey was 23 questions, Cronbach's alpha was tested on 22 questions (Table 6), as the last question of the Knowledge Questionnaire (KQ23) was open-ended and only sought to acquire insight into the types of source materials that undergraduate nursing students in Ireland might utilize when seeking information about religious death rituals. Table 6 illustrated the findings, Item-Total Statistics, related to the internal consistency of the KQ.

**Table 6***Survey Question Statistics*

<b>Item-Total Statistics</b>				
<b>Survey Questions (22 of 23 Questions)</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
1. A person is rushed to the hospital following a road traffic accident...	8.22	11.667	.199	.744
2. What message does this symbol (XX) communicate...	8.15	11.888	.198	.744
3. A person in the end stages of life is identified as a Christian...	8.41	11.470	.167	.749
4. A Roman Catholic family who just experienced the death of their relative believe...	8.35	11.038	.340	.734
5. A person in the end stage of life in a hospital setting belonging to a Protestant...	8.91	11.126	.352	.734
6. In case of the imminent death of a Roman Catholic person in the hospital...	8.84	11.391	.208	.745
7. Regarding cleaning and touching the dead body, the family of a person who is Christian...	8.25	11.026	.447	.728
8. The common symbol chosen by Roman Catholic Christians as part of their death...	8.47	10.522	.462	.723
9. The common symbol chosen by Christians...	8.60	10.482	.453	.724
10. The common symbol chosen by people belonging to Christian denominations such as...	8.96	11.953	.054	.753
11. The nurse caring for a Hindu person notices the person wearing sacred items...	9.01	11.776	.181	.744
12. A female person from India belonging to the Hindu religion in the end stages of life...	8.53	10.730	.378	.731
13. A person of a Hindu religion dies in the hospital, and the family...	8.91	11.753	.112	.750
14. A Hindu person in the last stages of life believes in particular religious' rituals...	9.01	11.656	.243	.741
15. A dying person practising the Hindu religion believes that after they die...	8.63	10.714	.379	.731
16. The Hindu person believes in the cycle of....	8.60	10.243	.532	.716
17. A dying person who is identified as Muslim by the family believes...	9.07	12.278	-.079	.752
18. Death is imminent for a female person who is Muslim. The family...	9.03	11.701	.246	.741
19. A Muslim person in the last stages of life receives Islamic death rites...	9.03	11.910	.129	.747
20. A Muslim person whose death is imminent wishes to be turned towards facing Mecca...	8.94	11.608	.185	.745
21. Regarding cleaning and touching of the dead body, the family...	8.74	10.586	.440	.725
22. A female Muslim person dies in the hospital. The family...	8.49	10.254	.549	.715

### **6.5.3 KQ Development Limitations**

Some of the limitations of the knowledge tool were related to the limitations of the current study overall. For example, the questionnaire was limited in terms of seeking information with regard to knowledge of only three religions. Questions were specific as to what the nurses would need to do when providing care to people who practiced a particular religion. The only religions covered in the current study were Christianity, Islam, and Hinduism, the three largest religious groups in the world (WPR, 2023b). The current study and the questionnaire were specific to caring for persons when death was imminent or at time-of-death, not at any other times during hospitalization. The study was limited to the care provided by nurses, not other medical personnel. Not all 13 schools with undergraduate nursing programmes in Ireland were included as not all provided permission to approach students. Expert judgement to measure validity was likely to be subjective, so there may have been discrepancies between the scores and the validity of the tool.

### **6.5.4 Conclusion**

The KQ was found to have validity, including both face validity and content validity, and proved to demonstrate appropriate clarity, relevance, and essentiality. It also demonstrated appropriate reliability. Hence, the KQ was said to have both validity and reliability and could be used to measure knowledge of religious death rituals.

## **6.6 mCAS Psychometric Testing: National Study**

Cultural competence and awareness had emerged in the literature review as crucial competencies in nursing education, particularly as the world's population (and the population in the Republic of Ireland) continued to diversify. However, there were few tools available for evaluating cultural awareness, and those that were available needed to be improved and tested with various target audiences, as proposed by the author of the original cultural awareness scale (Rew et al., 2003, 2014).

### **6.6.1 Modifying the Original CAS**

The original cultural awareness scale was developed by Rew et al. (2003) in the English language for nursing students studying in the US. It consisted of 36 items with responses based

on a 7-point Likert scale (ranging from strongly disagree to strongly agree), and an additional response "does not apply" was also an option. The content validity index: 0.88 and the Cronbach's alpha: 0.82 were achieved. To support the construct validity, an exploratory factor analysis was performed which identified five subscales: general education experience, cognitive awareness, research issues, behaviours/comfort with interactions, and patient care/clinical care. The internal consistency varied from 0.94 – 0.71. These five factors explained 51% variance in sub scores (Rew et al., 2003).

However a reanalysis of the questionnaire was undertaken when Krainovich-Miller et al. (2008) conducted a confirmatory factor analysis (CFA) using structural equation modelling, which did not replicate the findings originally reported by the original author. Thus, further psychometric testing of the CAS was recommended. Rew et al.(2014) undertook a new study to reanalyse the CAS to determine construct validity by testing the CFA. This yielded three factors with 35 item scale. Factor 1- general attitudes, 27 items, factor 2- Research Attitudes – four items, factor 3, clinical experience- four items. Cronbach's alpha ranged from 0.70 to 0.89. These findings supported the validity of the CAS. In addition to Rew et al.'s studies, the original CAS was used by Hadziabdic et al. (2016) and Krainovich-Miller et al. (2008), for example. A modified version was used in studies conducted by İz and Temel (2016), Heeseung et al. (2015), Kumlien et al. (2020), McElroy et al. (2016), and Oh et al. (2015).

**Narrowed to 32 Questions.** Permission was sought from the author to use the cultural awareness scale (CAS) and to modify accordingly. The development process was conducted in two stages. In Stage 1, a modified version of the CAS was developed (mCAS). In Stage 2, psychometric testing of the modified scale used cross-sectional data from 414 undergraduate nursing students in a national survey.

- **Stage 1.** In the first stage the CAS (Rew et al., 2014) questionnaire was checked carefully for relevance to undergraduate nursing students. The subscale (research issues) which consisted of four questions, was not relevant to nursing students at the undergraduate nursing level, so the four (4) questions were deleted. (See the original CAS in Appendix A and the modified CAS in Appendix B). The remaining 32 questions were again carefully



reviewed for wording. The term ‘instructors’ was changed to the term ‘lecturers’ throughout the questionnaire, as the former was a more common term in Ireland. The 32 questions of the modified CAS were used to collect data from the students.

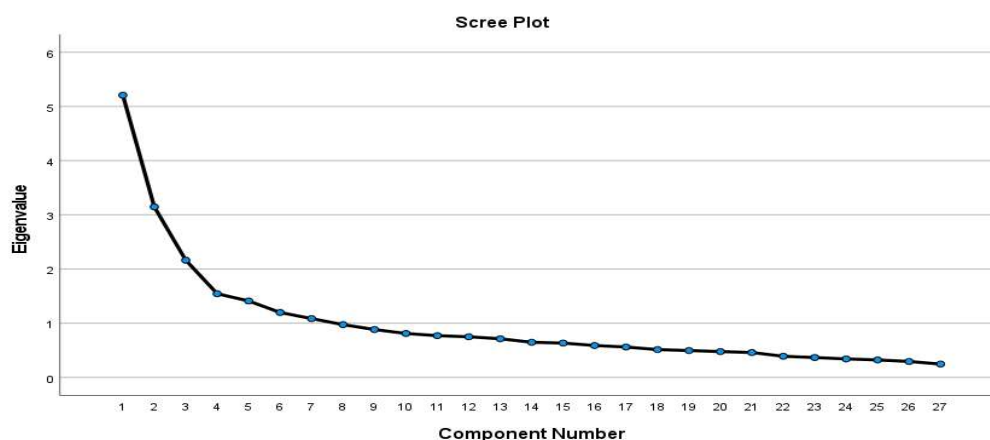
- **Stage 2.** The second stage involved empirical testing of the of the modified CAS (mCAS) in a cross-sectional national survey performed at the eight HEIs in Ireland.

**Construct Validity.** Construct validity was tested by using an exploratory factor analysis (n=414) using principal components analysis with Varimax Rotation. Prior to conducting principal component factor, the suitability of data for factor analysis was assessed. The Kaiser-Meyer-Olkin [KMO] measured sampling adequacy and the appropriateness of continuing the factor analysis (KMO > 0.60) (Pett et al., 2003). The KMO value in the current study was 0.799, exceeding the recommended value of 0.6. Bartlett's (1954) test of sphericity was performed (see Table 7) to analyse the overall significance of correlations within a matrix (p-value <0.001) (Pett et al., 2003). Nine components showed an Eigen value >1.0, explaining 59% of the total variance.

**Narrowing to 27 Questions, Scree Plot.** A scree plot determined the optimal number of factors to retain (Zoski & Jurs, 1996). When an analysis of the Scree Plot was performed, Figure 4, a clear cut was seen at four factors, and four was determined to be the optimal number of factors to retain. All of the questions loaded into the four factors.

**Figure 4**

*Scree Plot*



A principal component factor analysis with Varimax rotation was performed to analyse the four-factor model. Generally, factor loadings >0.50 were recommended, however, loadings >0.30 were considered acceptable (Pett et al., 2003). The four-factor model revealed five items with less than 0.3 factor loading, and therefore they were deleted (questions 9.6, 9.7, 10.3, 10.5, 11.5). This left 27 items on the mCAS Questionnaire.

**The Final Four.** The final four-factor model was constructed, namely: Factor 1- general education experience, Factor 2- general awareness and attitude, Factor 3- nursing classes and clinical instruction, Factor 4- clinical practice (Table 8). Table 7 illustrated the Kaiser-Meyer-Olkin (KMO) Measure of Sampling and Bartlett's Test of Sphericity. Table 8 illustrated the factor loading of the modified cultural awareness scale (n=414). Common abbreviations shown include "df" for degrees of freedom, and "Sig." for significance.

**Table 7**

*KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.799
Bartlett's Test of Sphericity Approximate Chi-Square	2926.378
df	.496
Sig.	.000

**Component Factor Analysis.** A component factor analysis (Table 8) was re-run with Varimax rotation. It was recommended that each item load on only one factor. However, eight items (10.4,10.2, 10.6,10.15,10.9,10.7.11.3,10.10) loaded on more than one factor, and these items were then placed into the most relevant factor groups. The four factors explained 44.67% of the total variance with component one contributing to 19.2% and component two contributing to 11.6% and component three contributing to 8.0% and component four contributing to 5.7% of the variance respectively. Table 8 illustrated the factor loading of a modified cultural awareness scale (mCAS).

**Table 8***Factor Loading of a Modified Cultural Awareness Scale (mCAS)*

<b>Rotated Component Matrix</b>				
<b>Statement</b>	<b>Component</b>			
	1. General experiences at my school	3. Nursing classes /training	4. Clinical practice/ behaviours	2. General awareness /attitude
<b>Q8.2</b> General Experiences at my School of Nursing   This nursing school provides opportunities for activities related to multicultural issues.	.738			
<b>Q8.3</b> General Experiences at my School of Nursing   Since entering this school of nursing, my understanding of multicultural issues has increased.	.730			
<b>Q8.1</b> General Experiences at my School of Nursing   The lecturers at my nursing school adequately address multicultural issues in nursing.	.709			
<b>Q8.4</b> General Experiences at my School of Nursing   My experiences at my nursing school have helped me become knowledgeable about the health problems associated with various racial and cultural groups.	.660			
<b>Q10.4</b> Nursing Lecturers / Clinical   In my nursing classes, my lecturers have engaged in behaviours that may have made students from certain cultural backgrounds feel excluded.	.486			-.407
<b>Q10.2</b> Nursing Lecturers / Clinical   During group discussions or exercises, I have noticed the lecturers make efforts to ensure that no student is excluded.	.374	.365		
<b>Q10.13</b> Nursing Lecturers / Clinical   I feel that my nursing school's lecturers respect differences in individuals from diverse cultural backgrounds.		.627		
<b>Q10.6</b> Nursing Lecturers / Clinical   My educators at my nursing school seem comfortable discussing cultural issues in the classroom.	.481	.592		
<b>Q10.12</b> Nursing Lecturers / Clinical   My clinical placements at this nursing school have helped me become more comfortable interacting with people from different cultures.		.544		
<b>Q10.15</b> Nursing Lecturers / Clinical   The nursing lecturers at my nursing school use examples and/or case studies that incorporate information from various cultural and ethnic groups.	.345	.534		
<b>Q10.14</b> Nursing Lecturers / Clinical   The nursing lecturers at my nursing school model behaviours that are sensitive to multicultural issues.		.510		
<b>Q10.11</b> Nursing Lecturers / Clinical   I feel comfortable discussing cultural issues in the classroom		.505		
<b>Q10.9</b> Nursing Lecturers / Clinical   I believe the classroom experiences at my nursing school help our students become more comfortable interacting with people from different cultures.	.489	.501		

Rotated Component Matrix				
Statement	Component			
	1. General experiences at my school	3. Nursing classes /training	4. Clinical practice/ behaviours	2. General awareness /attitude
<b>Q10.7</b> Nursing Lecturers / Clinical   My nursing educators seem interested in learning how their classroom behaviours may discourage students from certain cultural or ethnic groups.	.302	.476		
<b>Q11.1</b> Clinical Practice   I respect the decisions of my patients when they are influenced by their culture, even if I disagree.			.685	
<b>Q11.2</b> Clinical Practice   If I need more information about a patient's culture, I would use resources available on site (for example, books, videos, internet, etc.).			.616	
<b>Q9.5</b> General Awareness and Attitudes   I am less patient with individuals of certain cultural backgrounds.			.603	
<b>Q9.4</b> General Awareness and Attitudes   When I have an opportunity to help someone, I offer assistance less frequently to individuals of certain cultural backgrounds.			.573	
<b>Q9.8</b> General Awareness and Attitudes   I typically feel somewhat uncomfortable when I am in the company of people from cultural or ethnic backgrounds different from my own.			.551	
<b>Q11.4</b> Clinical Practice   If I need more information about a patient's culture, I would feel comfortable asking the patient or a family member.			.533	
<b>Q11.3</b> Clinical Practice   If I need more information about a patient's culture, I would feel comfortable asking people I work with.		.444	.480	
<b>Q9.2</b> General Awareness and Attitudes   I think my behaviours are influenced by my culture.				.759
<b>Q9.1</b> General Awareness and Attitudes   I think my beliefs and attitudes are influenced by my culture.				.705
<b>Q9.3</b> General Awareness and Attitudes   I often reflect on how culture affects beliefs, attitudes, and behaviours.				.577
<b>Q10.8</b> Nursing Lecturers / Clinical   I think the cultural values of the lecturers influence their behaviours in the clinical setting.				.514
<b>Q10.10</b> Nursing Lecturers / Clinical   I believe that some aspects of the classroom environment at my nursing school may alienate students from some cultural backgrounds.	.388		.356	-.451
<b>Q10.1</b> Nursing Lecturers / Clinical   I have noticed that the lecturers at my nursing school call on students from minority cultural groups when issues related to their group come up in class.			.314	-.412

*Note:* Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 10 iterations.

### 6.6.2 Reliability, Cronbach's Alpha

**The Reliability or Internal Consistency of the Scales.** Table 9 illustrated the average items score and Cronbach's alpha reliabilities for CAS and subscales. The Cronbach's alpha coefficients for the modified cultural awareness scale (mCAS) for the 27-item questionnaire was **0.782**. The Chronbach's alpha for the sub-scales of the mCAS was, for factor 1=0.76, factor 2=0.65, factor 3=0.76, and factor 4=0.67.

**Table 9**

*Cronbach's Alpha Reliabilities for the mCAS and Subscales*

General experience: your school and lecturers	General awareness/ Attitude	Nursing classes and clinical instruction	Clinical practise
8.1	9.1	10.6	9.4
8.2	9.2	10.7	9.5
8.3	9.3	10.9	9.8
8.4	10.8	10.11	11.1
10.2		10.12	11.2
10.4		10.13	11.3
10.10		10.14	11.4
		10.15	10.1
7	4	8	8
<b>Cronbach's Alpha 0.76</b>	<b>Cronbach's Alpha 0.655</b>	<b>Cronbach's Alpha 0.766</b>	<b>Cronbach's Alpha 0.678</b>

**Conclusion.** The findings from the mCAS supported the validity and reliability of the original CAS, as the 27-item scale was tested on a national study with 414 participants in Ireland at eight HEIs. The mCAS was proven to be valid and reliable.

### 6.7 Chapter Summary

This chapter presented the development and validation procedures related to the KQ tool, Questionnaire on Religious Death Rituals. It also presented the modification and validation efforts related to the mCAS. The final version of the four sections of the complete questionnaire can be found in Appendix K. The next chapter presents the national survey findings related to the knowledge levels and cultural awareness of undergraduate nursing students.

## **Chapter 7: National Survey Findings**

The previous chapters of this thesis were devoted to the presentation of the theoretical foundations and conceptual framework of the study, a review of literature and of the study design (methodology), and the development and testing of a new knowledge questionnaire. Based on the analysis and interpretation of the data collected during the current study, the researcher arrived at meaningful conclusions and attempted to draw appropriate inferences. The national survey was launched in September 2022. The present chapter provides an overview of the data analysis performed and a subsequent interpretation of the findings.

A variety of exercises indicated the Knowledge Questionnaire (KQ) was reliable, had face validity, content validity, reliability, and relevance. The modified cultural awareness scale (mCAS) was proven to be valid and reliable. Data from the two scales (mCAS and KQ) suggested that the data was not normally distributed among the undergraduate nursing students in Ireland. This information is illustrated in Appendix L (KQ and mCAS Normality of the Scales).

### **7.1 The Implemented Approach (National Study)**

The planned approach was implemented for the national study with one modification as described herein. The objectives of the current study were implemented in a development, inquiry, and analysis process. First, the researcher developed a Knowledge Questionnaire (KQ) from influences in the literature and through engaging informally with religious experts belonging to each of the three religions. The researcher also sought and obtained permission to utilize a modified version (mCAS) of the most recently tested Cultural Awareness Scale (Rew et al., 2014).

The study was then disseminated nationwide, approaching 5050 undergraduate nursing students at eight universities representing all four provinces in Ireland. A quantitative research method (survey) was used to collect information from the students. The complete instrument included 71 questions: the mCAS (32 questions) and KQ (23 questions), along with seven personal demographic questions and nine questions related to education and experience. It was envisaged that these methods would enable the researcher to answer the research questions

posed in the current study as described herein. The development and validation of the mCAS and the Knowledge Questionnaire tool was explained in Chapter 6.,

A total of 5050 undergraduate nursing students at eight HEIs were invited to participate. The heads of the schools arranged for the gatekeepers (members of the faculty) to distribute the invitation to take the survey. Follow up emails were sent to the gatekeepers asking them to email students at regular intervals to improve recruitment rates. However, the researcher could not ensure that regular follow up emails were sent. A total of 1226 students opened the survey email of which 662 responded and 342 completed the survey (320 did not return a complete survey and were excluded from the study). However, this number was insufficient to reach the calculated minimum sample size of 358 participants needed for the national study.

To resolve this issue, 400 paper copies of the survey instrument were delivered to two of the eight HEIs (200 copies each). The researcher in the current study considered further outreach to the schools with the lowest response rate, but it was not possible to determine this because all responses were aggregated online and completely anonymous. Thus, two schools were selected that were conveniently located in the city of Dublin. The heads of the schools arranged for the gatekeepers (members of the faculty) to distribute the surveys to undergraduate nursing students to opt-in and complete on their own time. One school returned 46 completed surveys and the other returned 26 completed surveys. Together with the online survey, this totalled 414 completed surveys returned in the national study.

## **7.2 Research Questions**

The overarching research question was: In Ireland, what are undergraduate nursing students' general cultural awareness and specific knowledge of death rituals practised by three world religions (Christianity, Islam, and Hinduism)? The study sought to answer the following additional research questions in that context:

1. What is the demographic and professional profile of undergraduate nursing students nationally in the Republic of Ireland?

2. What are the validity and reliability of the modified cultural awareness questionnaire and the reliability (internal consistency) of the knowledge questionnaire?
3. What is the cultural awareness and knowledge of undergraduate nursing students in Ireland as related to death rituals of the three world religions?
4. What is the correlation between cultural awareness and knowledge of religious death rituals?
5. What is the relationship between the demographic profile of nursing students to their cultural awareness and knowledge of death rituals?
6. What is the relationship of student experiences and education in caring for people at the time of imminent death (or time of death) to cultural awareness and knowledge of death rituals?

A quantitative cross-sectional survey design was selected. Two questionnaires were utilized: a Modified Cultural Awareness Scale (mCAS) and a Knowledge Questionnaire (KQ) on religious death rituals. The quantitative data collected was intended to help ascertain nursing students' cultural awareness on four subscales and their knowledge of religious death rituals. The current study was intended to afford an informed starting point from which specifically tailored education programmes could potentially be developed and implemented. The goal of such a programme would be to foster culturally competent care in both clinical and academic settings to meet the increasing needs of culturally diverse populations in the Republic of Ireland.

This chapter was intended to provide an overview of the data analysis procedures performed using the demographic findings and the detailed results generated by the two scales, the modified cultural awareness scale (mCAS) and Knowledge Questionnaire (KQ) developed for the current study. The data collected via the surveys were quantitative in nature. However, one open question was included on the KQ asking where students found resources on the topic, and two open-ended questions were included in Section 3 of the instrument which asked students about their experience and education with regard to providing care when a persons' death was imminent or at time-of-death. Content analysis was performed on the qualitative data. Findings produced by the qualitative responses were presented herein.



### **7.3 Data Analysis Overview**

In consultation with a statistician (through personal outreach), the researcher analysed the data. The data distribution of the two scales was discussed herein, as well as measures of central tendency and dispersion demonstrated group mean scores on the respective scales. Inferential statistics were used to look for relationships and differences based on demographics and nursing students experience and education with regard to caring for people when death was imminent or at time-of-death. Parametric tests, such as t-tests, one-way between groups ANOVA and post hoc tests, facilitated exploration of the data. Correlation analysis was performed using Pearson product-moment correlation coefficient to establish the direction (positive or negative) and strength of the relationship between cultural awareness, four subscales, and the knowledge scale. The demographic findings were presented in a table form, followed by findings answering each research question.

### **7.4 Response Rate**

Out of the thirteen higher educational institutions in Ireland, eight educational institutions participated in the current study. The sampling frames for the eight institutions were (5050) according to numbers provided by each institution. Of all 5050 undergraduate nursing students, a total of 1226 viewed the online survey and 662 responded (13%). Of those who responded, 320 did not complete the survey and were excluded, and 342 (52%) completed the survey, representing a response rate overall of 6.8%.

A calculation of the sample size required for the current study justified a need for at least 358 persons, which was calculated based on the population size at 95% confidence interval, margin of error 5%, population proportion 50% (Cochrane, 1977). Therefore, further outreach was necessary. An additional 400 paper copies of the survey instrument were delivered to two of the eight HEIs (200 copies each). The head of the schools arranged for gatekeepers (members of the faculty) to distribute the surveys to undergraduate nursing students who could opt-in and complete the survey on their own time. One school returned 46 completed surveys and the other returned 26 completed surveys for a total of 72 completed paper surveys (a

response rate of 18%). Together, this totalled 414 completed surveys returned from 5050 invitees in the national study (a response rate of 8.2%).

## 7.5 Statistical Findings Related to Research Questions

A variety of statistical analyses were conducted to examine the findings in the current study as related to each research question:

### 7.5.1 Research Question 1

What was the demographic and professional profile of undergraduate nursing students in the Republic of Ireland? See Table 10 for participant demographics.

**Table 10**

#### *Participant Demographics*

Independent Variables	Response Choices	No. of Students	Valid%	Total Students
<b>Age</b>	<18	50	12.1	414
	19-28	295	71.3	
	29-38	45	10.9	
	39-48	24	5.8	
<b>Gender</b>	Male	34	8.2	414
	Female	378	91.3	
	Other	2	.5	
<b>Birth</b>	In Ireland	344	83.1	414
	Outside of Ireland	70	16.9	
<b>Raised in religious faith</b>	No	57	13.8	414
	Yes	357	86.2	
<b>Practising religious person</b>	No	258	62.3	
	Yes	156	37.7	
<b>Year of nursing</b>	1-3	305	73.7	414
	4-5 years	109	26.3	
<b>Nursing Programme</b>	General Nursing	201	48.6	414
	Children's and General Nursing (Integrated)	47	11.4	
	Midwifery	25	6.0	
	Intellectual Disability Nursing	57	13.8	
	Psychiatric Nursing	84	20.3	

### 7.5.2 Research Question 2

What were the validity and reliability of the modified cultural awareness questionnaire and the reliability (internal consistency) of the knowledge questionnaire?

This question was answered in detail in Chapter 6: Instrument Development and Validation. Briefly, regarding the reliability or internal consistency of the mCAS total scale, the Cronbach's alpha coefficients for the mCAS was **0.782** for the 27-item questionnaire. Regarding the reliability or internal consistency of the KQ, the Cronbach's alpha coefficient of the religious death rituals scale was **0.873** for n=22 items, showing a good reliability of the scale.

### 7.5.3 Research Question 3

What was the cultural awareness and knowledge of undergraduate nursing students as related to death rituals of the three world religions?

**Descriptive Analysis: Knowledge and the mCAS.** In this section, a number of statistics have been presented with discussions as they relate to Table 11, Descriptive Analysis: Knowledge and the mCAS. The number of students (Table 13, column N) varied between 412 and 414 because two students were found to have missing data. Higher mean scores indicated higher levels of knowledge while lower mean scores indicated lower knowledge levels as compared to other students in the group.

**Table 11**

*Knowledge and Cultural Awareness: Descriptive Statistics*

Knowledge and Cultural Awareness: Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Knowledge Questionnaire	414	0	17	6.12	3.79
mCAS General Experience	413	1.29	7.00	4.75	1.03
mCAS General Awareness/Attitude	414	1.00	7.00	4.69	1.09
mCAS Nursing Classes and Clinical Instruction	413	1.00	7.00	5.16	.87
mCAS Clinical Practice	413	3.50	7.00	5.85	.71
Total mCAS	412	12.63	26.73	20.48	2.15
Valid N (list wise)	412				

**Modified Cultural Awareness Scale (mCAS).** The CAS developed and described by Rew et al. (2003, 2014) was a 36-item scale using a 7-point Likert-type rating scale (1=strongly disagree to 7=strongly agree). The modified CAS (mCAS) used for the current study was a 32-item scale with the same 7-point Likert scale and additional option (not applicable, or N/A). The students who responded N/A for any of the questions were considered as having missing data and eliminated from the study. Questionnaires that were partially completed (n=320) were eliminated from the analysis.

Upon completing the factor analysis, it was determined that five questions would not load and the scale was reduced to a 27-item scale for the purpose of ongoing analysis. Of the total 27 questions, six were negatively worded questions and, hence, they were reverse coded. The resulting cultural awareness scale was scored based on the mean, with a higher mean indicating higher levels of cultural awareness and a lower mean score indicating lower cultural awareness within the group.

As shown on Table 11, with regard to the mCAS, the highest mean scored by nursing students was in clinical practice (5.85) followed by nursing classes and clinical instruction (5.16) followed by general experience (4.75), and the lowest mean was scored in general awareness and attitude (4.69). The number of students responding was 412, rather than 414, because two students were found to have some missing data. The majority the students rated themselves with higher mean scores for cultural awareness in all of the four subscales, indicating a perception of having a moderately high level of cultural awareness on all mCAS subscales (M=20.488).

**Knowledge Scale.** The frequency of students who answered the questions correctly is shown in Table 12.

**Table 12***Knowledge Levels (Correct Answers for Each KQ Question, n=412)*

Question # on the KQ	Question # per the national survey	Frequency of correctly answered questions	Percent (%)
11	Q31	24	5.80%
19	Q39	30	7.20%
17	Q37	42	10.10%
14	Q34	44	10.60%
10	Q30	47	11.40%
18	Q38	53	12.80%
21	Q41	61	14.70%
20	Q40	65	15.70%
13	Q33	69	16.70%
5	Q25	96	23.20%
6	Q26	97	23.40%
12	Q32	109	26.30%
9	Q29	113	27.30%
16	Q36	131	31.60%
15	Q35	135	32.60%
3	Q23	175	42.30%
8	Q28	179	43.20%
22	Q42	180	43.50%
7	Q27	183	44.20%
2	Q22	228	55.10%
4	Q24	255	61.60%
1	Q21	327	79%

The mean score for undergraduate nursing students in relation to knowledge of religious death rituals was  $m = 6.12$  (SD 3.797). The minimum score was zero (0) and the maximum score was 22, but in the sample population the highest score was 17. Based on this, it could be reported that the students tended overall to have lower levels of knowledge. The three questions most undergraduate nursing students answered correctly were significant in that they reflected only standardized practice (KQ1, KQ2) and common knowledge (KQ4):

- (KQ1, 79%) asking the family about care following a pending traffic accident fatality
- (KQ2, 55.1%) the meaning of a symbol utilized in the hospital setting
- (KQ4, 61.6%) a temporary state in the Roman Catholic religion (purgatory, heaven, hell)

#### 7.5.4 Research Question 4

What was the correlation between cultural awareness and knowledge of religious death rituals? Table 13 presented the statistical correlation between knowledge and the mCAS subscales.

**Table 13**

*Correlation Between Knowledge and mCAS*

Correlations						
		Knowledge	General Experience	General Awareness/ Attitude	Nursing Classes / Clinical Training	Clinical Practice
<b>Knowledge</b>	Pearson Correlation	1	-.090	-.038	-.063	.102*
	Sig. (2-tailed)		.066	.437	.203	.039
	N	414	413	414	413	413
<b>General Experience</b>	Pearson Correlation	-.090	1	-.089	.552**	.217**
	Sig. (2-tailed)	.066		.071	<.001	<.001
	N	413	413	413	412	412
<b>General Awareness/ Attitude</b>	Pearson Correlation	-.038	-.089	1	.032	-.198**
	Sig. (2-tailed)	.437	.071		.522	<.001
	N	414	413	414	413	413
<b>Nursing Classes and Clinical Instruction</b>	Pearson Correlation	-.063	.552**	.032	1	.234**
	Sig. (2-tailed)	.203	<.001	.522		<.001
	N	413	412	413	413	413
<b>Clinical Practice</b>	Pearson Correlation	.102*	.217**	-.198**	.234**	1
	Sig. (2-tailed)	.039	<.001	<.001	<.001	
	N	413	412	413	413	413

\*Correlation is significant at the 0.05 level (2-tailed), highlighted above.

\*\*Correlation is significant at the 0.01 level (2-tailed), highlighted above.

The coefficient of correlation was a mathematical measure of how much one variable was expected to be influenced by changes in another. Correlation was a technique that measured the nature, degree, and extent of a relationship existing between two or more variables. The full survey instrument consisted of four sections: demographics, the mCAS, education and experience, and the Knowledge Questionnaire. The mCAS had four subscales: general experience, general awareness and attitude, nursing classes and clinical instruction and clinical

practice. Scatter plots (not shown) were used to examine the overall shape of these relationships.

A Pearson correlation measured the strength and direction of the linear relationship between the two variables. The correlation coefficient could range from -1 to +1, with -1 indicating a perfect negative correlation, +1 indicating a perfect positive correlation, and 0 indicating no correlation at all. The Pearson correlation coefficient could also be used to test whether the relationship between two variables was significant. The significant correlations in Table 13 were highlighted and indicated with an asterisk sign (as described in the table note). The number of students varied between 412 and 414 because two students were found to have some missing data. A discussion of the hypotheses and correlations for RQ4 is provided in Appendix M.

#### ***7.5.5 Research Question 5***

What was the relationship between the demographic profile of nursing students to cultural awareness and knowledge of death rituals?

Descriptive and inferential analyses, such as hypotheses testing through ANOVA and independent T-tests, were conducted and described in Appendix N.

**Demographic comparison.** A demographic comparison was conducted with regard to the knowledge and cultural awareness of undergraduate nursing students in Ireland. As shown in Table 14, to test the relationship between the independent variables (demographic data) and the dependent variable (knowledge and cultural awareness), T-tests and one-way ANOVA were performed. The 0.05 level was used as the criterion for statistical significance, and the assumption of homogeneity of variance was tested. When the overall significant difference was found among groups, the Bonferroni test was used for post hoc comparisons among pairs of means. A t-test was used when the data had only two groups (e.g.- male/female) and a one-way analysis of variance was employed when independent variable had a number of different groups, and the dependent variable was a continuous variable (Pallant, 2020). A discussion of the statistics, and accompanying tables, is presented in Appendix N (RQ5 Statistics).

**Table 14***Independent and Dependent Variables*

Independent Variable	Dependent Variable
Age	<b>Knowledge</b>
Gender	
Birth	
Raised in a religious faith	
Practising religious person	<b>and</b>
Year of study	<b>Cultural Awareness</b>
Programme of study	

Table 15 through Table 21 present descriptive statistics and ANOVA test results:

**Table 15***Relationship to Age: Knowledge, Cultural Awareness*

Outcome Measure	Outcome Measure Subscale	Demographic Variable	Outcome Value	Mean	Standard Deviation	F or T-value Results/df	P-value
Knowledge		Age	<18	5.14	3.59	F= 1.71	0.16
			19-28	6.16	3.8	df=3	
			29-38	6.87	4.11	df=410	
			39-48	6.21	3.23		
			<b>Total</b>	<b>6.12</b>	<b>3.79</b>		
mCAS	General Experience		<18	4.86	0.98	F=2.596	0.052
			19-28	4.67	1.04	df=3	
			29-38	5.05	1.01	df=409	
			39-48	5.02	0.99		
			<b>Total</b>	<b>4.75</b>	<b>1.03</b>		
	General Awareness and attitude		<18	4.54	0.88	F= 0.56	0.63
			19-28	4.73	1.07	df=3	
			29-38	4.61	1.36	df=410	
			39-48	4.64	1.18		
			<b>Total</b>	<b>4.69</b>	<b>1.09</b>		
	Nursing Classes and Clinical Instruction		<18	4.94	0.98	F=1.32	0.267
			19-28	5.17	0.85	df=3	
			29-38	5.26	0.88	df=409	
			39-48	5.25	0.75		
			<b>Total</b>	<b>5.16</b>	<b>0.87</b>		
	Clinical Practice		<18	5.71	0.81	F=1.44	0.231
			19-28	5.87	0.69	df=3	
			29-38	5.99	0.68	df=409	
			39-48	5.74	0.7		
			<b>Total</b>	<b>5.85</b>	<b>0.71</b>		



**Table 16***Relationship to Gender: Knowledge, Cultural Awareness*

Outcome Measure	Outcome Measure Subscale	Demographic Variable	Outcome Value	Mean	Standard Deviation	F or T-value Results/df	P-value
Knowledge		Gender	Male	7.26	4.64	t=-1.86	0.06
			Female	6	3.7	df=410	
	mCAS		Male	4.79	1.2	t=0.20	0.838
			Female	4.75	1.02	df=409	
	General Experience		Male	4.72	1.1	t=0.17	0.86
			Female	4.68	1.08	df=410	
	General Awareness/ Attitudes		Male	5.64	0.79	t=1.84	0.06
			Female	5.87	0.7	df=409	
	Nursing Classes and Clinical Instruction		Male	5.64	0.79	t=-1.84	0.06
			Female	5.87	0.70	df=409	

**Table 17***Relationship to Birthplace: Knowledge, Cultural Awareness*

Outcome Measure	Outcome Measure Subscale	Demographic Variable	Outcome Value	Mean	Standard Deviation	F or T-value Results/df	P-value
Knowledge		Birthplace	In Ireland	6.1	3.84	t=-0.23	0.81
			Outside of Ireland	6.21	3.55	df=412	
	mCAS		In Ireland	4.75	1.04	t=-0.41	0.68
			Outside of Ireland	4.8	0.96	df=411	
	General Experience		In Ireland	4.65	1.08	t=-1.46	0.14
			Outside of Ireland	4.86	1.09	df=412	
	General Awareness/ Attitudes		In Ireland	5.18	0.85	t=1.17	0.23
			Outside of Ireland	5.05	0.95	df=411	
	Nursing Classes and Clinical Instruction		In Ireland	5.86	0.71	t=0.51	0.6
			Outside of Ireland	5.81	0.72	df=411	

**Table 18***Relationship to Being Raised in a Religious Faith: Knowledge, Cultural Awareness*

Outcome Measure	Outcome Measure Subscale	Demographic Variable	Outcome Value	Mean	Standard Deviation	F or T-value Results/df	P-value
Knowledge		Brought up in a religious faith	No	6.42	4.17	t=0.64	0.51
			Yes	6.07	3.73	df=412	
mCAS	General Experience		No	4.79	1.09	t=0.27	0.78
			Yes	4.75	1.02	df=411	
	General Awareness/ Attitude		No	4.54	1.05	t=-1.12	0.26
			Yes	4.71	1.09	df=412	
	Nursing Classes and Clinical Instruction		No	5.11	0.91	t=-0.45	0.65
			Yes	5.17	0.86	df=411	
	Clinical Practice		No	5.85	0.67	t=-0.06	0.95
			Yes	5.85	0.72	df=411	

**Table 19***Relationship to Practicing a Religious Faith: Knowledge, Cultural Awareness*

Outcome Measure	Outcome Measure Subscale	Demographic Variable	Outcome Value	Mean	Standard Deviation	F or T-value Results/df	P-value
Knowledge		Practicing Religious Faith	No	6.23	3.83	t=0.76	0.44
			Yes	5.94	3.74	df=412	
mCAS	General Experience		No	4.75	1.04	t=-0.05	0.96
			Yes	4.76	1.02	df=411	
	General Awareness/ Attitude		No	4.58	1.07	t=-2.73	0.007
			Yes	4.88	1.10	df=412	
	Nursing Classes & Clinical Instruction		No	5.19	0.86	t=0.87	0.38
			Yes	5.11	0.87	df=411	
	Clinical Practice		No	5.91	0.65	t=1.97	0.04
			Yes	5.76	0.79	df=411	

**Table 20**

*Relationship to Year of Study: Knowledge, Cultural Awareness*

Outcome Measure	Outcome Measure Subscale	Demographic Variable	Outcome Value	Mean	Standard Deviation	F or T-value Results/df	P-value
Knowledge	mCAS	Year of study	1-3 years	6.15	3.89	t=0.32	0.74
			4-5 years	6.02	3.53	df=412	
		General Experience	1-3 years	4.83	1.02	t=2.55	0.01
			4-5 years	4.54	1.04	df=411	
		General Awareness/ Attitude	1-3 years	4.62	1.12	t=-2.10	0.03
			4-5 years	4.88	0.98	df=412	
		Nursing Classes and Clinical Instruction	1-3 years	5.15	0.87	t=-0.25	0.79
			4-5 years	5.18	0.86	df=411	
		Clinical Practice	1-3 years	5.86	0.72	t=0.43	0.66
			4-5 years	5.83	0.69	df=411	

**Table 21**

*Relationship to Programme of Study: Knowledge, Cultural Awareness*

Outcome Measure	Outcome Measure Subscale	Demographic Variable	Outcome Value	Mean	Standard Deviation	F or T-value Results/df	P-value
Knowledge		Programme of Study	General Nursing (GN)	6.61	3.73	F=6.28	<0.001
			Children's and General Nursing (Integrated) (CGN)	6.74	3.98	df=4	
			Midwifery	7.68	3.43	df=409	
			Intellectual Disability Nursing (IDN)	4.47	3.12		
			Psychiatric Nursing (PN)	5.25	3.89		
			GN	4.72	1.01	F=1.20	
			CGN	4.65	0.9	df=4	
			Midwifery	4.67	1.1	df=408	
			IDN	5.02	0.97		
			PN	4.74	1.16		
mCAS	General Experience	Programme of Study	GN	4.65	1.1	F=0.51	0.72
			CGN	4.65	1.05	df=4	
			Midwifery	4.97	1.08	df=409	
			IDN	4.68	1.02		
			PN	4.73	1.13		
	General Awareness/ Attitude		GN	5.07	0.88	F=1.35	0.24
			CGN	5.16	0.8	df=4	
			Midwifery	5.3	0.92	df=408	
			IDN	5.33	0.86		
			PN	5.21	0.84		
	Nursing Classes and Clinical Instruction		GN	5.87	0.7	F=0.08	0.98
			CGN	5.88	0.64	df=4	
			Midwifery	5.84	0.56	df=408	
			IDN	5.84	0.73		
			PN	5.82	0.8		

### **7.5.6 Research Question 6**

What was the relationship of student experiences and education in caring for people at the time of imminent death (or time of death) to cultural awareness and knowledge of death rituals?

#### **Section 3: Frequency Distribution, Nursing Students Experience and Education.**

The questions in Section 3 of the national survey instrument investigated nursing students' experience and education in relation to religious death rituals. Table 22 and Table 23 depict the frequency distribution of the experience and education, respectively, of nursing students when caring for people with different religious needs when death was imminent or at time-of-death.

- Table 22 depicts all questions except multi-response questions and depicts the number of students (and percentages) who responded to multiple-choice options in the questions shown.
- Table 23 illustrates responses to multi-response options in Question 16 (1-5) and Question 18 (1-8), as they had the option to tick all relevant answers. On Table 23, the #1 showing in the Frequency column represents missing data.

**Table 22***Section 3, Frequency Distribution: Nursing Students Education/Experience*

<b>Frequency Distribution (Section 3 of the Survey)</b>				
<b>Questions 12-15, 17, 19, 20</b>	<b>Options</b>	<b>Frequency</b>	<b>Valid %</b>	<b>Total</b>
Q12 Have you ever been present in an imminent death or death situation of a person? (Tick one box only)	No	168	40.6%	414
	Yes	246	59.4%	
Q13 Have you ever cared for a person of a different religious background in an imminent death or death situation? (Tick one box only)	No	340	82.1%	414
	Yes	74	17.95%	
Q14.1 How often have you cared for a person from any of the following religious backgrounds in an imminent death or death situation? (Tick one box only)   Christianity	Never	117	28.3%	414
	Rarely	49	11.8%	
	Sometimes	89	21.5%	
	Often	158	38.2%	
	Missing			
Q14.2 How often have you cared for a person from any of the following religious backgrounds in an imminent death or death situation? (Tick one box only)   Islam	Never	302	72.9%	414
	Rarely	65	15.7%	
	Sometimes	34	8.2%	
	Often	13	3.1%	
	Missing			
Q14.3 How often have you cared for a person from any of the following religious backgrounds in an imminent death or death situation? (Tick one box only)   Hinduism	Never	329	79.7%	414
	Rarely	56	13.6%	
	Sometimes	24	5.8%	
	Often	4	1%	
	Missing	1		
Q15 Outside of your current nursing programme, have you learnt about religious death rituals?	No	230	55.7%	414
	Yes	183	44.3%	
	Missing	1	.02%	
Q17.1 About which of the three different religious death rituals have you learnt in your current nursing programme?   Christianity	No	194	47.3%	414
	Yes	216	52.7%	
	Missing	4		
Q17.2 About which of the three different religious death rituals have you learnt in your current nursing programme?   Islam	No	331	80.7%	414
	Yes	79	90.3%	
	Missing	4		
Q17.3 About which of the three different religious death rituals have you learnt in your current nursing programme?   Hinduism	No	361	88.5%	414
	Yes	47	11.5%	
	Missing	6		
Q19 How do you feel your nursing programme to date has helped you gaining the knowledge you feel you need to support dying patients from different religious groupings?	Not at all	184	44.6%	414
	Somewhat		47.5%	
	Very Well		8%	
	Missing			
Q20 How do you feel your clinical placements have helped you to gain knowledge you feel you need in supporting dying patients from different religious groupings?	Not at all	160	38.7%	414
	Somewhat	210	50.8%	
	Very Well	42	10.4%	
	Missing	1		

**Table 23***Section 3, Frequency Distribution: Education/Experience, Multi-response*

<b>Frequency D+B16+A2:E13+A2+A2:E14</b>				
<b>Questions 16 and 18: Multi-reponse</b>	<b>Options</b>	<b>Frequency</b>	<b>Valid %</b>	<b>Total</b>
Q16.1 Where did you learn about religious death rituals? (Tick all relevant answers)   Own reading	0	323	78%	414
	1	91	22%	
Q16.2 Where did you learn about religious death rituals? (Tick all relevant answers)   Travelling abroad	0	381	92%	414
	1	33	8%	
Q16.3 Where did you learn about religious death rituals? (Tick all relevant answers)   Social-Media / Internet	0	327	79%	414
	1	87	21%	
Q16.4 Where did you learn about religious death rituals? (Tick all relevant answers)   Part-time job	0	382	92.3%	414
	1	32	7.7%	
Q16.5 Where did you learn about religious death rituals? (Tick all relevant answers)   Other (Please specify)	0	341	82.4%	414
	1	73	17.6%	
Q18.1 Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Not Applicable (select if you answered "No (2)" to all options in previous question)	0	195	47.2%	414
	1	218	52.8%	
	Missing	1		
Q18.2 Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Classroom / lecture theatre	0	309	74.8%	414
	1	104	25.2%	
	Missing	1		
Q18.3 Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Small group tutorials	0	391	94.7%	414
	1	22	5.5%	
	Missing	1		
Q18.4 Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Skills lab	0	393	95.2%	414
	1	20	4.8%	
	Missing	1		
Q18.5 Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Clinical placement, example preceptor, Clinical Placement Co- ordinator (CPC)	0	345	83.5%	414
	1	68	16.5%	
	Missing	1		
Q18.6 Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   During Student exchanges	0	383	92.7%	414
	1	30	7.3%	
	Missing	1		
Q18.7 Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Through meeting patients and family members from different religions	0	357	86.4%	414
	1	56	13.6%	
	Missing	1		
Q18.8 Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Other (Please specify)	0	380	92%	414
	1	33	8%	
	Missing	1		

**Introduction to Questions #12-20 (Q12-Q20):** While previous sections elucidated upon demographics, which were fairly common questions, the other sections dealt with more complex questions. In Appendix O, Q12-Q20 (excluding Q16 and Q18) were each identified to clarify each discussion and table presented for each question. Descriptive and inferential analyses, such as hypotheses testing through ANOVA and independent T-tests, were conducted and described in Appendix O. Q16 and Q18 were open-ended questions, so they were discussed independently in this section.

To test the relationship between the independent variables (demographic data) and the dependent variable (knowledge and cultural awareness), T-tests and one-way ANOVA were performed. The 0.05 level was the criterion for statistical significance, and the assumption of homogeneity of variance was tested (Tables 24-34).

**Table 24**

*Statistics: Knowledge, mCAS, Present or Not at Death*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
Knowledge		Q12.Present or not at death	No	5.15	3.81	t=-4.38	<0.001
			Yes	6.78	3.65	df=412	
mCAS	General Experience		No	4.82	1	t=1.00	0.316
			Yes			df=411	
	General Awareness/Attitude		No	4.67	1.08	t=-0.27	0.786
			Yes			df=412	
	Nursing Classes and clinical Instruction		No	5.18	0.88	t=0.49	0.618
			Yes			df=411	
	Clinical Practice		No	5.82	0.7	t=-0.80	0.420
			Yes			df=411	

**Table 25***Statistics: Knowledge, mCAS, Cared for Different Religious Background*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
knowledge		Q13.Cared for different religious backgrounds	No	5.87	3.72	t=-2.87	0.004
			Yes	7.26	3.94	df=412	
mCAS	General Experience		No	4.77	1.01	t=0.56	0.57
			Yes	4.69	1.11	df=411	
	General Awareness/Attitude		No	4.66	1.09	t=-1.34	0.17
			Yes	4.84	1.06	df=412	
	Nursing Classes and clinical Instruction		No	5.18	0.85	t=1.14	0.25
			Yes	5.05	0.93	df=411	
	Clinical Practice		No	5.87	0.7	t=1.23	0.21
			Yes	5.76	0.74	df=411	

**Table 26***Statistics: Knowledge, mCAS, Cared for Christian Background*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
Knowledge		Q14.1 Cared for a person with a Christian background	Never	5.55	3.91	F=1.13	0.33
			Rarely	6.39	4.18	df=4	
			Sometimes	6.07	3.49	df=409	
			Often	6.47	3.73		
mCAS	General Experience		Never	4.76	1.06	F=0.41	0.79
			Rarely	4.7	1.12	df=4	
			Sometimes	4.7	0.96	df=408	
			Often	4.79	1.02		
	General awareness/Attitude		Never	4.6	1.17	F=0.42	0.79
			Rarely	4.65	1.16	df=4	
			Sometimes	4.72	1.04	df=409	
			Often	4.75	1.03		
	Nursing Classes and clinical Instruction		Never	5.17	0.89	F=1.04	0.38
			Rarely	5.13	0.77	df=4	
			Sometimes	5.02	0.93	df=408	
			Often	5.23	0.83		
	Clinical practice		Never	5.82	0.71	F=0.65	0.62
			Rarely	5.91	0.66	df=4	
			Sometimes	5.77	0.8	df=408	
			Often	5.9	0.67		



**Table 27***Statistics: Knowledge, mCAS, Cared for Islamic Background*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
Knowledge	Knowledge	Q14.2 Cared for a person with an Islamic background	Never	6.18	3.73	F=1.40	0.24
			Rarely	6.25	4.02	df=3	
			Sometimes	6.15	4.12	df=410	
			Often	4	2.82		
mCAS	General Experience		Never	4.82	1.05	F=1.89	0.13
			Rarely	4.59	1.02	df=3	
			Sometimes	4.69	0.93	df=409	
			Often	4.28	0.83		
	General Awareness/ Attitude		Never	4.68	1.11	F=0.28	0.83
			Rarely	4.79	1.1	df=3	
			Sometimes	4.59	0.85	df=410	
			Often	4.61	1.043		
	Nursing Classes and clinical instruction		Never	5.16	0.9	F=1.22	0.30
			Rarely	5.29	0.72	df=3	
			Sometimes	4.99	0.77	df=409	
			Often	4.92	1.01		
	Clinical Practice		Never	5.8969	0.702	F=1.71	0.16
			Rarely	5.7025	0.789	df=3	
			Sometimes	5.8946	0.589	df=409	
			Often	5.6552	0.814		

**Table 28***Statistics: Knowledge, mCAS, Cared for Hindu Background*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
Knowledge	Knowledge	Q14.3 Cared for a person with a Hindu background	Never	6.14	3.71	F=1.08	0.35
			Rarely	6.27	4.28	df=3	
			Sometimes	6.08	3.88	df=410	
			Often	2.75	0.5		
mCAS	General Experience		Never	4.8	1.05	F=1.04	0.37
			Rarely	4.56	0.94	df=3	
			Sometimes	4.59	0.96	df=409	
			Often	4.71	0.23		
	General Awareness/ Attitude		Never	4.69	1.12	F=0.14	0.93
			Rarely	4.75	0.91	df=3	
			Sometimes	4.58	0.97	df=410	
			Often	4.62	1.19		
	Nursing Classes and Clinical Instruction		Never	5.16	0.88	F=0.37	0.774
			Rarely	5.09	0.81	df=3	
			Sometimes	5.15	0.79	df=409	
			Often	5.54	1.05		
	Clinical practice		Never	5.88	0.69	F=1.21	0.305
			Rarely	5.72	0.76	df=3	
			Sometimes	5.79	0.75	df=409	
			Often	5.53	0.82		

**Table 29***Statistics: Knowledge, mCAS, Learnt In/Outside Nursing Programme*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
knowledge		Q15. Learnt within or outside of current nursing programme	No	5.14	3.53	t=-6.09	<0.001
			Yes	7.34	3.77	df=411	
mCAS	General Experience		No	4.81	0.99	t=1.18	0.23
			Yes	4.68	1.08	df=410	
	General awareness/Attitude		No	4.66	3.53	t=-0.62	0.53
			Yes	4.68	3.77	df=411	
	Nursing Classes and Clinical Instruction		No	5.14	0.82	t=-0.29	0.77
			Yes	5.17	0.92	df=410	
	Clinical practice		No	5.81	0.74	t=-1.47	0.14
			Yes	5.91	0.66	df=410	

**Table 30***Statistics: Knowledge, mCAS, Studied Christianity*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
Knowledge		17.1. Study within your nursing programme (Christianity)	No	5.69	3.82	t=-2.45	0.015
			Yes	6.6	3.7	df=408	
mCAS	General experience		No	4.75	1.02	t=0.06	0.94
			Yes	4.76	1.03	df=407	
	General Awareness/attitude		No	4.6	1.08	t=-1.45	0.14
			Yes	4.75	1.08	df=408	
	Nursing Classes and clinical instruction		No	5.07	0.83	t=-1.81	0.07
			Yes	5.22	0.89	df=407	
	Clinical Practice		No	5.88	0.71	t=0.56	0.57
			Yes	5.84	0.71	df=407	

**Table 31***Statistics: Knowledge, mCAS, Studied Islam*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
Knowledge		17.2 Study within your nursing programme (Islam)	No	6	3.76	t=-1.78	0.07
			Yes	6.85	3.8	df=408	
mCAS	General Experience		No	4.74	1.02	t=-0.81	0.41
			Yes	4.84	1.04	df=407	
	General Awareness/Attitude		No	4.66	1.09	t=-0.65	0.51
			Yes	4.75	1.08	df=408	
	Nursing Classes and clinical instruction		No	5.11	0.84	t=-1.89	0.059
			Yes	5.31	0.95	df=407	
	Clinical practice		No	5.85	0.71	t=-0.35	0.72
			Yes	5.89	0.68	df=407	

**Table 32***Statistics: Knowledge, mCAS, Studied Hinduism*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
Knowledge		17.3.Study within your nursing programme (Hinduism)	No	6.13	3.79	t=-0.68	0.49
			Yes	6.53	3.68	df=406	
mCAS	General Experience		No	4.71	1.02	t=-2.71	0.007
			Yes	5.14	1	df=405	
	General awareness/Attitude		No	4.65	1.07	t=-1.91	0.056
			Yes	4.97	1.12	df=406	
	Nursing Classes and Clinical Instruction		No	5.11	0.83	t=-3.03	0.003
			Yes	5.51	1	df=405	
	Clinical Practice		No	5.86	0.7	t=-0.04	0.967
			Yes	5.86	0.72	df=405	

**Table 33***Statistics: Knowledge, mCAS, Sufficient Knowledge in Programme*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
knowledge		Q19.Did nursing programme provide sufficient knowledge	Not at all	6.15	3.76	F=0.12	0.883
			Somewhat	6.07	3.85	df=2	
			Very well	6.42	3.67	df=410	
mCAS	General Experience		Not at all	4.45	1.05	F=19.86	<0.001
			Somewhat	Apr-91	0.92	df=2	
			Very well	5.48	0.99	df=409	
	General Awareness/Attitude		Not at all	4.54	1.11	F=2.91	0.55
			Somewhat	4.8	1.05	df=2	
			Very well	4.79	1.05	df=410	
	Nursing Classes and Clinical instruction		Not at all	4.91	0.89	F=15.55	<0.001
			Somewhat	5.31	0.79	df=2	
			Very well	5.57	0.72	df=409	
	Clinical Practice		Not at all	5.83	0.67	F=0.68	0.507
			Somewhat	5.86	0.72	df=2	
			Very well	5.99	0.84	df=409	

**Table 34***Statistics: Knowledge, mCAS, Clinical Placements*

Outcome Mean	Outcome Mean Subscale	Demographic Value	Options	Mean	SD	F or T-value /df	P-value
knowledge		Q20.Did clinical placements provide knowledge	Not at all	5.86	3.78	F=0.72	0.484
			Somewhat	6.27	3.83	df=2	
			Very well	6.49	3.58	df=410	
mCAS	General Experience		Not at all	4.54	1.09	F=13.44	<0.001
			Somewhat	4.78	0.95	df=2	
			Very well	5.43	0.92	df=409	
	General Awareness/Attitude		Not at all	4.62	1.17	F=0.68	0.50
			Somewhat	4.75	1	df=2	
			Very well	4.62	1.15	df=410	
	Nursing Classes and clinical Instruction		Not at all	4.93	0.92	F=13.54	<0.001
			Somewhat	5.22	0.8	df=2	
			Very well	5.65	0.67	df=409	
	Clinical practice		Not at all	5.86	0.65	F=2.23	0.109
			Somewhat	5.81	0.72	df=2	
			Very well	6.06	0.83	df=409	

**Descriptive Statistics: Where Learnt About Religious Death Rituals (Q16.1-5).**

Question 16 (Q16.1-5) was "Where did you learn about religious death rituals?" Nursing students were asked to specify from the areas depicted in Table 35 (Q16.1-5), as to where

exactly they had learnt about religious death rituals. Students who did not learn about religious death rituals anywhere could leave Q16 blank. The case summary of students who answered this question was shown in Table 35. The total of N=196 (47.3%) responded to this question and n=218 (52.7% did not respond).

**Table 35**

*Case Summary*

<b>Case Summary</b>						
	Cases					
	<u>Valid</u>		<u>Missing</u>		<u>Total</u>	
	N	Percent	N	Percent	N	Percent
<b>Q16<sup>a</sup></b>	196	47.3%	218	52.7%	414	100.0%

a. Dichotomy group tabulated at value 1.

As shown in Table 36, of the 196 students (47.3%) who responded to this question, most had learnt from their own reading (28.8%) and from social media and/or the Internet (27.5%); 10.4% learnt from travelling abroad; 10.1% learnt from a part-time job; and 23.1% responded they learnt from other sources which were illustrated in a Word Cloud (Figure 20).

**Table 36**

*Outside Sources Where Learnt About Religious Death Rituals: Frequencies*

<b>Multi-response Analysis, Total Students Responding to Q16.1-5</b>				
		Responses		
		N	Percent	Percent of Cases
<b>Q16<sup>a</sup></b>	Q16.1 Own reading	91	28.8%	46.4%
	Q16.2 Travelling abroad	33	10.4%	16.8%
	Q16.3 Social-Media / Internet	87	27.5%	44.4%
	Q16.4 Part-time job	32	10.1%	16.3%
	Q16.5 Other	73	23.1%	37.2%
<b>Total</b>		<b>316</b>	<b>100.0%</b>	<b>161.2%</b>

a. Dichotomy group tabulated at value 1.

The other sources of information identified in the current study were derived from (Q16.5) as shown in Table 36, as well as sources within their nursing programmes (Q18.8 is shown in Table 58); and where students might seek further information (KQ23). Questions 18 and 23 were discussed later in this Chapter. Answers from each of those three questions (Q16.5,



**Statistics: Study Within Your Nursing Programme.** Question 17 (Q17) was "About which of the three different religious death rituals have you learnt in your current nursing programme?" A separate section sought information regarding each of the three religions: Christianity (17.1), Islam (17.2), and Hinduism (17.3). The results are reported in Table 30, Table 31, and Table 32, and in Appendix P (Q17 Statistics).

**Descriptive Statistics: Where Learnt About Different Death Rituals Within Current Nursing Programme.** Question 18 (Q18.8) was "Where specifically did you learn about the different death rituals during your current nursing programme?"

The case summary, Table 37, indicated a total of 172 students responded to this question (41.5%) and 242 did not respond to this question (48.5%).

**Table 37**

*Case Summary*

<b>Case Summary</b>						
Cases						
	<u>Valid</u>		<u>Missing</u>		<u>Total</u>	
	N	Percent	N	Percent	N	Percent
<b>Q18<sup>a</sup></b>	172	41.5%	242	58.5%	414	100.0%

a. Dichotomy group tabulated at value 1.

Nursing students were asked to specify from the areas depicted in Table 38 (Q18.1-8), as to where exactly they had learnt about religious death rituals. Students who did not learn about religious death rituals within their current nursing programme could leave Q18 blank. As shown in Table 27, of the 242 students (41.5%) who responded to Question 18.1-8, most 34.7% learned from their classroom lectures/theatre and from their preceptor or clinical placements (22.7%), and others learnt through meeting patients and family members of different religions (18.7%), from small group tutorials (7.3%), from skills labs (6.7%), and 10% during student exchanges. Student responses, with regard to learning from other sources (Q18.8), were illustrated in a Word Cloud, Figure 21.

**Table 38**

*Where Learnt About Religious Death Rituals Within Current Nursing Programme: Multi-response Analysis*

Multiple Response Analysis, Total Students Responding to Q18.1-8				
		Responses		
		N	Percent	Percent of Cases
<b>Q18<sup>a</sup></b>	Q18.2 Classroom / lecture theatre	104	34.7%	60.5%
	Q18.3 Small group tutorials	22	7.3%	12.8%
	Q18.4 Skills lab	20	6.7%	11.6%
	Q18.5 Preceptor, Clinical Placement	68	22.7%	39.5%
	Q18.6 During Student exchanges	30	10.0%	17.4%
	Q18.7 Through meeting patients and family members from different religions	56	18.7%	32.6%
	Q18.8 Other			
	<b>Total</b>	<b>300</b>	<b>100.0%</b>	<b>174.4%</b>

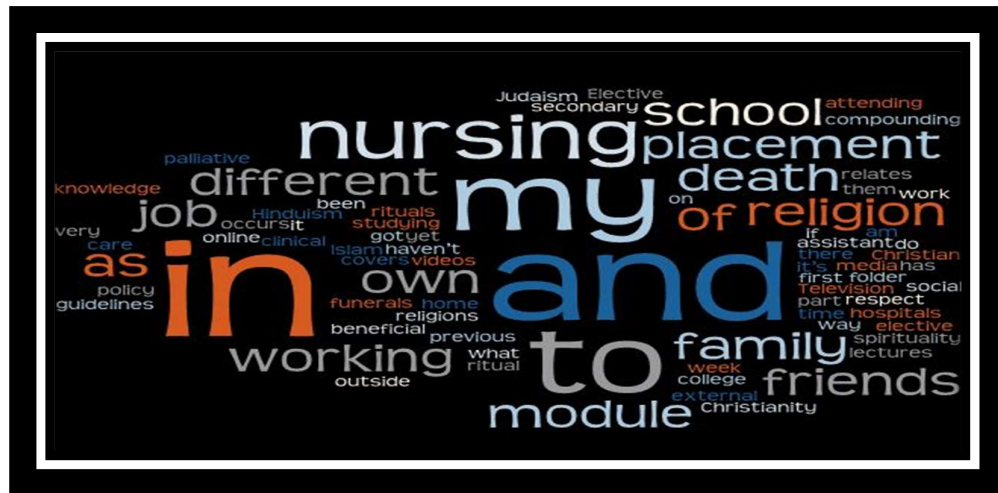
a. Dichotomy group tabulated at value 1.

**Word Cloud.** The last part of Question 18 (Q18.8) requested other sources of learning within the students' current nursing programme (Figure 21). Thirty-five (35) students responded to this question. They mentioned they had learnt from a variety of sources, such as learning on the job while working as a care assistant, or from online videos, social media, television, a part-time job in a nursing home, clinical placement, studying religion in college prior to studying nursing, or via an elective module. One participant mentioned an elective module that related to spirituality in nursing and covered Islam, Hinduism, Christianity, and Judaism, which was "very beneficial in compounding [my] knowledge of different death rituals". One participant had a folder on different religions discussing how to respect them and what to do if a death occurred. Some learnt from their own family and friends enacting rituals, or from their own religion. Others learned in secondary school, from friends, from working in hospitals, from palliative care lectures, employment, attending funerals, family members, and places outside of school. One stated, "I haven't got there yet as it's my first week, I am a Christian". Another mentioned policy guidelines in job placement (required learning). Responses were generated in a Word Cloud (Figure 21).



**Figure 6**

*Word Cloud (Q18.8): Other Sources Within Current Nursing Programme*



**Descriptive Statistics: Nursing Programme and Knowledge.** Question 19 (Q19) was "Do you feel your nursing programme to date has helped you gaining the knowledge you feel you need to support dying patients from different religious groupings?" Question 20 (Q20) was "Do you feel your clinical placements to date have helped you gain the knowledge you feel you need to support dying patients from different religious groupings?" The descriptive and inferential statistics, and related tables, are presented in Appendix Q (Q19-20 Descriptive and Inferential Statistics).

**Descriptive Statistics: Open Ended Question.** The last question, (KQ23) was "In relation to religious death care of the three religions (Christianity, Islam and Hinduism), please list any other sources of information that you use?" A Word Cloud, Figure 22, was generated from student responses.

**Word Cloud.** Question 23 on the Knowledge Questionnaire requested other sources of information not yet mentioned. Out of the 50 responses received, 15 students said "I don't know" or answered "N/A". The other 35 students stated that they used the Bible, asked patients themselves, asked staff of the same religion, or asked more experienced staff who had cared for people of different religions at end of life. Others mentioned they would speak with a chaplain.



fellow nursing staff from that culture (if available). Others mentioned the Health Service Executive (HSE) and Tusla websites also contained information pertaining to different practices for different religions that could be viewed online or in a booklet download.

Students mentioned an elective module that was very beneficial and had provided a lot of learning resources. Some mentioned they learnt just from experience, from placements, and from being exposed to situations and people. One stated "I have never received any education or information regarding the topics raised throughout this survey"; another said "I haven't done anything on religious beliefs yet"; and a third said, "I have used no resources". Others learnt from coming across people dying in hospice or a hospital.

## **7.8 Significant Findings: Frequency of Findings**

### ***7.8.1 Frequency of Choosing Each Multiple-Choice Option on the KQ***

Shown in Appendix R, the response rates with regard to each of the four multiple-choice options on each of the 22 questions of the KQ was illustrated in tabular form. The 23<sup>rd</sup> question was open-ended and was, therefore, not included in Appendix R. As an example of the information included therein (and discussed in terms of significance in Chapter 8), the three questions most undergraduate nursing students answered correctly were those that reflected standardized hospital practice (KQ1, KQ2) and common knowledge (KQ4):

- (KQ1, 79%) asking the family about care following a pending traffic accident fatality
- (KQ2, 55.1%) the meaning of a symbol utilized in the hospital setting
- (KQ4, 61.6%) a temporary state in the Roman Catholic religion (purgatory, heaven, hell)

### ***7.8.2 Frequency of Choosing "I don't know" on the KQ***

It seemed prudent to examine how many students indicated they did not know the answer to each question in the KQ. The results were tabulated in Table 39 which was sorted by the percent of students (right-hand column) who answered "I don't know" to each question. Only questions 1-22 of the KQ were examined because Question 23 was an open-ended question. It was significant that more than two-thirds of the students did not know the answers

to ten questions (of 22) on the KQ. It was significant that more than half of the students did not know the answers to 16 of the 22 questions on the KQ.

**Table 39**

*Frequency of Choosing "I don't know" (option #4) on the KQ*

<b>Frequency and % of students choosing "I don't know" on the KQ</b>			
<b>Question No. (KQ)</b>	<b>Question No. (Analysis)</b>	<b>Frequency</b>	<b>Percent</b>
<b>1</b>	Q21	41	9.90%
<b>4</b>	Q24	95	22.90%
<b>3</b>	Q23	137	33.10%
<b>2</b>	Q22	139	33.60%
<b>8</b>	Q28	153	37%
<b>6</b>	Q26	196	47.30%
<b>7</b>	Q27	208	50.20%
<b>5</b>	Q25	220	53.10%
<b>9</b>	Q29	255	54.30%
<b>22</b>	Q42	229	55.30%
<b>16</b>	Q36	257	62.10%
<b>15</b>	Q35	263	63.50%
<b>12</b>	Q32	276	66.70%
<b>17</b>	Q37	276	66.70%
<b>13</b>	Q33	296	71.50%
<b>20</b>	Q40	297	71.70%
<b>18</b>	Q38	305	73.70%
<b>10</b>	Q30	307	74.20%
<b>21</b>	Q41	330	79.70%
<b>19</b>	Q39	343	82.90%
<b>11</b>	Q31	364	87.90%
<b>14</b>	Q34	364	87.90%

### ***7.8.3 Frequency of Choosing the Correct Answer on the KQ***

Table 40 illustrated that no one answered all 22 questions correctly. Significantly, only three (3) of 414 students answered 17 of the 22 multiple-choice questions on the KQ correctly, five (5) answered 16 of the questions correctly, and etcetera. Nearly half (49%) answered only five (5) questions correctly, and 75.4% only answered eight (8) of the 22 multiple-choice questions correctly. The correct answers on the KQ were highlighted in Appendix D for the purpose of this paper and were not sent out in the national study (Appendix K).

**Table 40***Frequency of Choosing the Correct Answer on the KQ*

<i>Knowledge Questionnaire: Questions Answered Correctly</i>				
No. of Questions Answered Correctly	No. of Students	Percent	Valid Percent	Cumulative Percent
0	13	3.1	3.1	3.1%
1	29	7	7	10.1%
2	30	7.2	7.2	17.4%
3	44	10.6	10.6	28%
4	41	9.9	9.9	37.9%
5	46	11.1	11.1	49%
6	44	10.6	10.6	59.7%
7	31	7.5	7.5	67.1%
8	34	8.2	8.2	75.4%
Valid 9	26	6.3	6.3	81.6%
10	19	4.6	4.6	86.2%
11	14	3.4	3.4	89.6%
12	14	3.4	3.4	93%
13	9	2.2	2.2	95.2%
14	9	2.2	2.2	97.3%
15	3	0.7	0.7	98.1%
16	5	1.2	1.2	99.3%
17	3	0.7	0.7	100%
17 of 22	414	100%	100%	

**7.9 Additional Significant Findings**

The frequency of findings was significant, choosing “I don’t know” or an incorrect vs. correct answer to each question on the KQ, as discussed in Section 7.7. Additional significant findings included the items discussed in this section.

**7.9.1 RQ1: Demographic Profile**

What was the demographic and professional profile of undergraduate nursing students in the Republic of Ireland? The majority of students were between ages 19 and 28 (71.3%), were female (91.3%), born in Ireland (83.1%), were raised in a religion (86.2%) but did not practise a religion (62.3%), and most were in the first three years (73.7%) of study, almost half were in the General Nursing programme (48.6%), followed by Psychiatric Nursing (20.3%).

### ***7.9.2 RQ2: Validity and Reliability of the mCAS and KQ***

What were the validity and reliability of the modified cultural awareness questionnaire and the reliability (internal consistency) of the knowledge questionnaire? The reliability and validity of the mCAS and KQ were measured. As demonstrated in Chapter 6, the Knowledge Questionnaire (KQ) was found to be reliable, to have face validity and relevance. The modified cultural awareness scale (mCAS) was proven to be reliable. Data from the two scales (mCAS and KQ) suggested that the data was not normally distributed among the undergraduate nursing students in Ireland (see Appendix L). Internal consistency reliability was checked using Cronbach's alpha coefficient, revealing a value of 0.782 for the mCAS and 0.873 for the knowledge questionnaire. This was congruent with the previous studies utilising this tool. The construct validity was tested on the mCAS by using an exploratory factor analysis using principal component analysis with Varimax rotation.

### ***7.9.3 RQ3: Cultural Awareness and Knowledge of Religious Death Rituals***

What were the cultural awareness and knowledge of undergraduate nursing students as related to death rituals of the three world religions?

All the students rated themselves with higher mean scores for cultural awareness in all of the four subscales, indicating a perception of having a moderately high level of cultural awareness on all mCAS subscales ( $M=20.488$ ). The four mCAS subscales, when examined separately, indicated students scored themselves the highest cultural awareness as related to their clinical practice, followed by nursing classes and clinical instruction, general experience, and then general awareness and attitude. A majority of undergraduate nursing students (64.3%) in the Republic of Ireland had medium levels of knowledge based upon their collective scores ( $m=6.12$ ) on the KQ, however, no one answered more than 17 of 22 multiple-choice questions correctly. The KQ results (illustrated in Table 39 and 40) indicated very low levels of knowledge related to religious death rituals because more than half of the students (200-364) said they did not know the answers to 16 of 22 multiple-choice questions. Nearly half (49%) answered only five (5) questions correctly, and 75.4% only answered eight (8) of the 22 multiple-choice questions correctly.

#### ***7.9.4 RQ4: Correlation Between Cultural Awareness and Knowledge***

What was the correlation between cultural awareness and knowledge of religious death rituals? A number of correlations were demonstrated in the findings:

- The correlation analysis indicated that cultural awareness subscale (clinical practice) correlated with the other three subscales (general experience, general awareness/ attitude, nursing classes/ clinical) and knowledge questionnaire.
- There was a statistically significant correlation between knowledge and clinical practice.
- The coefficient of correlation indicated that mCAS subscale (general experience) correlated with nursing classes and clinical instruction and clinical practice (negative correlation).
- The coefficient of correlation indicated that mCAS subscale (general awareness/attitude) correlated with clinical practice.
- The coefficient of correlation indicated that mCAS subscale (nursing classes and clinical instruction) correlated with general experience and clinical practice.
- The coefficient of correlation indicated that mCAS subscale (nursing classes and clinical instruction) correlated with clinical practice.
- There was a statistically significant correlation between general awareness/attitude and clinical practice.
- There existed a statistically significant correlation between nursing classes and clinical instruction to general experience.
- The coefficient of correlation indicated that mCAS subscale (nursing classes and clinical instruction) correlated with clinical practice.
- There was a statistically significant correlation between clinical practice to knowledge, general experience, general awareness/attitude, and to nursing classes and clinical instruction.

#### ***7.9.5 RQ5: Relationship of Demographics to Cultural Awareness and Knowledge***

What was the relationship between the demographic profile of nursing students to cultural awareness and knowledge of death rituals? The nursing students between ages 29-28

had higher scores than other age groups correlating knowledge and cultural awareness to experience, and to nursing classes and clinical instruction. The younger age group, aged 19-28, had higher scores with regard to general awareness and attitude, and with regard to clinical practice. A significant difference was noted between one demographic variable, programme of study, to knowledge (Table 41).

**Table 41**

*Demographic Data: Significant (SS) and Non-significant (NS) Results*

	<b>Knowledge</b>	<b>mCAS</b>
<b>Age</b>	NS	NS
<b>Gender</b>	NS	NS
<b>Birth</b>	NS	NS
<b>Raised in Religious Faith</b>	NS	NS
<b>Practising Religious Person</b>	NS	NS
<b>Year of Study</b>	NS	NS
<b>Programme of Study</b>	SS	NS

#### **7.9.6 RQ6: Relationships: Education/Experience to Cultural Awareness, Knowledge**

What was the relationship of student experiences and education in caring for people at the time of imminent death (or time of death) to cultural awareness and knowledge of death rituals?

- Table 42 depicted results from all mCAS questions except multi-response questions.
- Table 43 depicted the number of students (percentages) who responded to multi-response options in Question 16 (1-5) and Question 18 (1-8), as they had the option to tick all relevant answers. The response "other" (Q16.5 and Q18.8), was an open-ended fill-in-the-blank option, and responses were presented earlier in this Chapter in Word Clouds, Figure 20 and Figure 21, respectively.



**Table 42***Clinical Placement: Significant (SS) and Non-significant (NS) Results*

<b>Significant and Non-significant Results</b>			
<b>Questions 12-15, 17, 19, 20</b>	<b>Options</b>	<b>SS Knowledge</b>	<b>SS CAS</b>
<b>Q12</b> Have you ever been present in an imminent death or death situation of a person? (Tick one box only)	No Yes	SS	NS
<b>Q13</b> Have you ever cared for a person of a different religious background in an imminent death or death situation? (Tick one box only)	No Yes	SS	NS
<b>Q14.1</b> How often have you cared for a person from any of the following religious backgrounds in an imminent death or death situation? (Tick one box only)   Christianity	Never Rarely Sometimes Often Missing	NS	NS
<b>Q14.2</b> How often have you cared for a person from any of the following religious backgrounds in an imminent death or death situation? (Tick one box only)   Islam	Never Rarely Sometimes Often Missing	NS	NS
<b>Q14.3</b> How often have you cared for a person from any of the following religious backgrounds in an imminent death or death situation? (Tick one box only)   Hinduism	Never Rarely Sometimes Often Missing	NS	NS
<b>Q15</b> Outside of your current nursing programme, have you learnt about religious death rituals?	No Yes Missing	SS	NS
<b>Q17.1</b> About which of the three different religious death rituals have you learnt in your current nursing programme? (Nursing classes/ clinical instruction)   Christianity	No Yes Missing	NS	NS
<b>Q17.2</b> About which of the three different religious death rituals have you learnt in your current nursing programme? (Nursing classes/ clinical instruction)   Islam	No Yes Missing	NS	NS
<b>Q17.3</b> About which of the three different religious death rituals have you learnt in your current nursing programme? (Nursing classes/ clinical instruction)   Hinduism	No Yes Missing	NS	SS
<b>Q19</b> How do you feel your nursing programme to date has helped you gaining the knowledge you feel you need to support dying patients from different religious groupings? (General experience and nursing classes / clinical instruction)	Not at all Somewhat Very well Missing	NS	SS
<b>Q20</b> How do you feel your clinical placements have helped you to gain knowledge you feel you need in supporting dying patients from different religious groupings? (General experience and nursing classes / clinical instruction)	Not at all Somewhat Very well Missing	NS	SS

The results indicated:

- Q12 - A statistically significant difference was indicated between knowledge of nursing students who were present and not present in an imminent death or death situation.
- Q13 - A statistically significant difference was indicated between knowledge of students who cared and not did not care for persons in an imminent death or death situation.
- Q15 - A statistically significant difference was indicated between knowledge of nursing students who studied within their current nursing programme and outside their current nursing programme.
- Q17.3 - A statistically significant difference was indicated between the cultural awareness of nursing students who learnt about religious death rituals of Hinduism in their current nursing programme and those who hadn't learnt in their current nursing programme according to the mCAS subgroup: nursing classes and clinical instruction.
- Q19 - A statistically significant difference was indicated between the cultural awareness of nursing students who felt their nursing programme to date had helped them gain the knowledge needed to support dying patients from different religious groups according to the mCAS subgroup: nursing classes and clinical instruction.
- Q20 - A statistically significant difference was indicated between the cultural awareness of nursing students who felt their clinical placements to date had helped them gain the knowledge needed to support dying patients from different religious groups according to the mCAS subgroup: nursing classes and clinical instruction.

Table 43 indicated the multi-response results for where undergraduate nursing students had learnt about religious death rituals in general as well as where specifically within their nursing programmes (Q16 and Q18).

**Table 43***Clinical Placement (Q16, Q18) Multi-response Results*

Questions 16 and 18: Multi-response		
	Options	% Response
<b>Q16.1</b> Where did you learn about religious death rituals? (Tick all relevant answers)   Own reading	0	46.40%
	1	
<b>Q16.2</b> Where did you learn about religious death rituals? (Tick all relevant answers)   Travelling abroad	0	16.80%
	1	
<b>Q16.3</b> Where did you learn about religious death rituals? (Tick all relevant answers)   Social-Media / Internet	0	44.40%
	1	
<b>Q16.4</b> Where did you learn about religious death rituals? (Tick all relevant answers)   Part-time job	0	16.30%
	1	
<b>Q16.5</b> Where did you learn about religious death rituals? (Tick all relevant answers)   Other (Please specify)	N/A	37.20%
<b>Q18.1</b> Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Not Applicable (select if you answered "No (2)" to all options in previous question)	0	N/A
	1	
	Missing	
<b>Q18.2</b> Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Classroom / lecture theatre	0	60.50%
	1	
	Missing	
<b>Q18.3</b> Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Small group tutorials	0	12.80%
	1	
	Missing	
<b>Q18.4</b> Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Skills lab	0	11.60%
	1	
	Missing	
<b>Q18.5</b> Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Clinical placement, example preceptor, Clinical Placement	0	39.50%
	1	
	Missing	
<b>Q18.6</b> Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   During Student exchanges	0	17.40%
	1	
	Missing	
<b>Q18.7</b> Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Through meeting patients and family members from different religions	0	32.60%
	1	
	Missing	
<b>Q18.8</b> Where specifically did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)   Other (Please specify)	0	N/A
	1	
	Missing	

## **7.10 Chapter Summary**

This chapter covered the national survey findings. First, an overview was provided including the research questions, data analysis process, and survey response rate. The frequency and percentage of students choosing “I don’t know” on the KQ was revealed. Answers to the research questions and conclusions (significant findings) related to the research questions were presented. The next chapter included a discussion of the findings and the recommendations of the researcher.

## **Chapter 8: Discussion**

### **8.1 Introduction**

Chapter 8 presented a discussion of the findings in the current study as related to the literature, problem statement, statement of purpose, and theoretical framework. Chapter 8 includes the following sections: (8.2) an overview of the current study; (8.3) a brief review of the problem statement, statement of purpose, and theoretical framework; (8.4) correlation between the mCAS and KQ; (8.5) cultural awareness vs. knowledge; (8.6) cultural awareness, knowledge, and demographics; (8.7) knowledge and programme of study; (8.8) cultural encounters, competence, and cultural awareness; (8.9) knowledge sources; (8.10) limitations; (8.11) conclusions; (8.12) recommendations; (8.13) and suggestions for future research.

### **8.2 Overview of the Current Study**

Considering the broad nature of the variables in the current study, which were nursing students, culture, cultural awareness, death, religions and rituals, it was essential to gain comprehensive background knowledge and understanding of the topic. To achieve the goals of the current study, an extensive literature review was intended to identify gaps in the existing research, to establish the best methodological approach for the current study, and to gain insights into recommendations for practice. Major topics of interest included cultural awareness in nursing education, religion in nursing, death, and student nurse education.

Due to a dearth of information with regard to undergraduate nursing student knowledge and cultural awareness of religious death rituals in general (based on the literature) and in Ireland (based on the current study), this study was significant in unearthing genuine information in those contexts. The gap in the literature, and thus the objectives of this study were to measure undergraduate nursing student cultural awareness and knowledge of death rituals as practised by three world religions (Christianity, Islam and Hinduism) in the Republic of Ireland; to develop a new tool specifically to measure knowledge in this context; and to provide new actionable knowledge to nursing science and education.

The theoretical framework that guided the current study was based upon Josepha Campinha-Bacote's (2002) model of cultural competence, called The Process of Cultural

Competence in the Delivery of Health Care Services. In order to provide patient-centred care and become culturally competent, it was essential to recognise the patient as a person. Cultural competence involved the integration of cultural awareness, cultural knowledge, cultural skill, cultural encounters, and the desire to be effective (p. 15). According to this model, cultural competence was defined as "the process in which the health care provider continuously strives to achieve the ability to work effectively within the cultural context of a client, individual, family or community" (p. 15). The Campinha-Bacote model required health care professionals to see themselves as continuously becoming culturally competent rather than being culturally competent (Campinha-Bacote, 2007). The attainment of cultural competence was meant to be continuous, ongoing, fluid, dynamic and a lifelong journey.

The dependent variables for the current study were cultural awareness and knowledge, which were measured using a Modified (with permission) Cultural Awareness Scale (mCAS) and the Knowledge Questionnaire (KQ) developed for this study. The independent variables were nursing student demographics, experiences and education, specifically with regard to caring for people with different cultural and religious needs when their death was imminent or at the time-of-death. The demographics and education levels analysed for this study included undergraduate nursing student age; gender; place of birth (within Ireland or outside of Ireland); whether the student was raised in a religious faith; whether practising a religious faith; the year of study in their nursing programme; and their programme of study.

Eleven experts from Christianity, Islam and Hinduism were consulted during the development of the Knowledge Questionnaire (KQ) crafted for the current study. The mCAS and Knowledge Questionnaire were both examined, tested, and validated prior to use. Validity (face and content validity) of the KQ developed for the current study was sought by engaging six experts on an advisory committee to evaluate the tool. The KQ was pilot tested thereafter. The data collected from the surveys included four sections:

1. Section 1: demographic data;
2. Section 2: modified cultural awareness scale (mCAS);

3. Section 3: experience and education in caring for person of a different culture/religion when death was imminent or at time-of-death; and
4. Section 4: knowledge of religious death rituals as related to Christianity, Islam and Hinduism.

Out of the 13 HEI's with undergraduate nursing programmes in the Republic of Ireland, eight granted ethics approval for the national study to be carried out in their institutions, ensuring representation from all four provinces of Ireland. The researcher in the current study contacted the heads of the schools who arranged for gatekeepers (members of the faculty) to email the survey invitation, plain language statement, consent form, survey instructions and link to all of the 5050 undergraduate nursing students studying at the eight HEIs. A total of 1226 students opened the survey email of which 662 responded and 342 completed the survey sufficiently to participate in the study (320 did not return a complete survey and were excluded from the study). However, this number (342 participants) was insufficient to reach the calculated minimum sample size of 358 participants needed for the national study.

To resolve this issue, 400 paper copies of the survey instrument were delivered to two of the eight HEIs (200 copies each). The researcher in the current study considered further outreach to the schools with the lowest response rate, but it was not possible to determine this because all responses were aggregated online and completely anonymous. Thus, two schools were selected conveniently located in the city of Dublin. The heads of the schools arranged for gatekeepers (members of the faculty) to distribute the surveys to undergraduate nursing students to opt-in and complete on their own time. One school returned 46 completed surveys and the other returned 26 completed surveys. Together with the online survey, this totalled 414 sufficiently completed surveys returned in the national study, representing all four provinces in Ireland.

Once data collection was completed, various analytical methods were used to examine the data. Descriptive analyses and inferential analyses were conducted, such as hypothesis testing through independent t-tests and ANOVA. Psychometric testing of the mCAS included reliability measurements using Cronbach's alpha coefficient and exploratory factor analysis to

support the construct validity of the mCAS. Psychometric testing of the Knowledge Questionnaire included reliability measurement using Cronbach's alpha coefficient. Multiple response analysis was conducted on responses captured through an open-ended question.

Descriptive statistics indicated the demographic characteristics of the sample. Measures of central tendency and dispersion demonstrated group mean scores and established the distribution of nursing students on two respective scales. Inferential statistics were used to identify any differences between the scores on the two scales based on demographics such as age, gender, place of birth, whether raised in or practicing a religious faith, year of study, and programme of study. Parametric tests, such as t-tests, one-way between groups ANOVA, and post hoc tests, facilitated between-group exploration. A correlational analysis was performed using the Pearson product-moment correlation coefficient to establish the direction (positive or negative) and strength of the relationship between the mCAS and the KQ instruments.

### **8.3 Problem, Purpose, and Theoretical Framework**

The current chapter discussed the findings, in terms of conclusions and recommendations for practice and future research, as they related to the Statement of Purpose, Problem Statement, and Theoretical Framework. The purpose of the current study was to consider the needs of nurses and undergraduate nursing students and their culturally diverse patients, and to support their need for culturally competent care at the time of death in a hospital setting. The findings could be applied within The Process of Cultural Competence in the Delivery of Health-Care Services (Campinha-Bacote, 2011), which was the theoretical framework for the current study. Further, the findings could help to solve the stated problem: It was clear from the literature and the results of the current study that Ireland's nursing professionals were inadequately equipped to respond to the increasingly diverse patient population in Ireland. The problem was, as stated earlier: Nurses and nursing students needed adequate training in multiple areas to meet cultural competency challenges in the health care setting (Boi, 2000; Červený et al., 2019; Cortis, 2000; Flowers, 2004; Gerrish, 2000; Heeseung et al., 2015; Lyons et al., 2008; Markey et al., 2017).



## 8.4 Correlation Between the mCAS and KQ

When exploring the correlation between cultural awareness (four subscales) and the knowledge questionnaire, analyses indicated significant correlations. Regarding the mCAS subscales:

- A statistically significant correlation existed between all of the four subscales.
- A significant negative correlation existed between general awareness and attitude to clinical practice.
- A significant correlation existed between nursing classes and clinical instruction to general experience and clinical practice.
- Finally, a significant correlation existed between clinical practice to all of the other three sub scales.

There was a correlation between knowledge (KQ) and clinical practice (mCAS), which was weak but positive, indicating as one variable increased (clinical practice), the other variable also increased (knowledge). There had been no research found in the literature that measured this before, so this was a very important finding.

According to Fayers et al. (2005), a high correlation between two scales implied that the scales were measuring the same factor and there was a need to consider whether they might be combined into one single scale. In the current study there was a strong (.552) and positive correlation between general experience and nursing classes and clinical instruction. This corresponded to previous studies that tested the CAS (Hadziabdic et al., 2016; Oh et al., 2015; Rew et al. 2003). According to Kumlien et al. (2020), the low inter-correlations between the subscales of the mCAS may, therefore, be acceptable, and may suggest a satisfactory convergent validity. Rew et al. (2003) tested the correlation of the subscales of CAS and found that there was no relationship between them. Rew et al. suggested this could be because of negatively worded items and/or a tendency to choose them. There were higher correlations between the subscales of cognitive awareness and clinical issues, and between general

educational experience and clinical issues in the Korean version (Oh et al., 2015). Because of different factor loading of the different scales, it would be difficult to compare different studies.

## **8.5 Cultural Awareness vs. Knowledge**

### ***8.5.1 Self-reported Cultural Awareness***

Cultural awareness was seen as a first step toward gaining cultural competence (Krainovich-Miller et al., 2008). The current study indicated undergraduate nursing students had self-perceptions of a moderately high level of cultural awareness within all four mCAS subscales (higher mean indicating higher scores). Similar results were found in other recent studies (Hultsjö et al., 2019; Ličen, et al., 2020; McElroy, 2016; Rew et al., 2014). Students considered themselves culturally aware when providing care to patients of different cultural backgrounds due to their clinical practice experiences, as was also found in Rew et al. (2003). Clinical practice described students experience while providing care in a clinical setting (e.g., I respect the decisions of my patients when they are influenced by their culture, even if I disagree). Similar findings were seen in Rew et al. (2003), which indicated that students considered themselves culturally aware in providing care. As Rew et al. stated, it would be wise to consider differences in cultural awareness that may exist between patient's perceptions and student's perception.

### ***8.5.2 Knowledge***

In contrast to the students' self-reported (higher) perceptions of cultural awareness on the mCAS, the national study results indicated no one answered more than 17 of 22 multiple-choice questions correctly. The KQ results indicated very low levels of knowledge related to religious death rituals because more than half of the students (200-364) said they did not know the answers to 16 of 22 multiple-choice questions. Nearly half (49%) answered only five (5) questions correctly, and 75.4% only answered eight (8) of the 22 multiple-choice questions correctly. The questions could have been considered difficult, as they were developed with the help of 11 religious experts. However, the experts considered the questions on the KQ essential with regard understanding the death rituals. The three questions most undergraduate nursing

students answered correctly, were significant in that they reflected only standardized practice (KQ1, KQ2) and common knowledge (KQ4):

- (KQ1, 79%) asking the family about care following a pending traffic accident fatality
- (KQ2, 55.1%) the meaning of a symbol utilized in the hospital setting
- (KQ4, 61.6%) a temporary state in the Roman Catholic religion (purgatory, heaven, hell)

Table 12, Table 39 and Table 40 indicated an extraordinary lack of knowledge on the part of undergraduate nursing students in Ireland, and clearly indicated a need for more information during classes, clinical instruction, and in clinical practice, even though those were reportedly the best sources of information within the nursing programmes. The students' own view of their level of cultural awareness, as measured by the mCAS, was not credible. Importantly, the use of these two measures (mCAS and KQ) indicated it was critical to measure knowledge objectively, as sometimes assumptions about our own knowledge may be inaccurate. Results in other studies, likewise, indicated limited knowledge about psychological, spiritual, or palliative care (Alwawi et al., 2022; Etafa et al., 2020; Zeru et al., 2020). The results in the current study did not differentiate between knowledge levels related to each religion, as the KQ collected data on all students as a whole rather than separating responses into three different religions.

## **8.6 Cultural Awareness and Demographics**

The researcher in the current study undertook statistical tests to examine whether any relationship existed between cultural awareness and the demographics included in the current study: age, gender, birthplace, whether raised in religious faith, practising religious faith, year of study and programme of study. The study results showed that demographics had no relationship to cultural awareness. Similar results were seen in other studies. For example, Safipour et al. (2016) indicated nursing student levels of cultural awareness were unrelated to socio-demographic variables such as age, sex and their experience living abroad. Recently, Ličen et al. (2021) tested against variables such as gender and age and found no relationship either.

Similar results were seen in (Kuehn et al., 2011) with regard to course work on cultural awareness. The study results indicated no statistically significant difference between student demographic and professional profiles to cultural awareness. Likewise, Ličen, et al. (2021) found no statistically significant difference between student demographics (age and gender) and other data (year of study and religion) related to overall CAS score. This suggested that age, gender, religion, and year of study were unrelated to the expression of cultural awareness. The non-significant results obtained in the demographic data were, thus, very significant findings in this study.

However, some interesting information was acquired during the current study with regard to demographics, particularly birthplace, whether raised in or practicing a religion, and year of nursing programme. These findings are discussed in the next few sections.

#### ***8.6.1 Section 1: Birthplace***

In Ireland, according to an Irish Nurses and Midwives Organization (INMO) press release, 49% of the nurses that registered in 2019 were from outside the EU (INMO, 2020). The current national study results indicated that the majority of the students (344) were born in Ireland (83.1%) as compared to those (70) who were born outside of Ireland (16.9%). Students who were born outside of Ireland had slightly higher scores than students born in Ireland, indicating they may have been more exposed to other religions and cultures by the very fact of being born in a less homogenous environment. Engagement with them, could, therefore, enlighten Irish nursing students.

#### ***8.6.2 Section 1: Raised-in and Practising Religious Faith***

According to the Central Statistics Office (CSO, 2022), Roman Catholics accounted for 78.3% of the total population of Ireland. According to the World Population Review, in 2020, the percentage was 84% (WPR) (2023b). Although Irish people were mostly Catholic and their children were likely to be reared Catholic, as they got older, children often made their own decisions about their spirituality and religious preferences. The current study determined 83.1% of participants were born in Ireland and 86.2% were raised in a religious faith, but 62.3% were not practising a religion. Since 2011, there had been a 73.6% growth (468,421 individuals)

in the number of non-religious Irish (CSO, 2016). Non-religious individuals were the third largest group in the world in 2020 (WPR, 2023b) and second largest in Ireland, followed by a quickly growing Muslim population (WPR, 2023a). Students raised in a religious faith exhibited greater cultural awareness related to general experience, nursing classes and clinical instruction. Results of the current study could be interpreted to mean that students who were not practicing any religion were more conscious of all religions and, therefore, their general experience, awareness and attitudes were higher.

### ***8.6.3 Section 1: Year of Nursing Programme***

A total of 414 students participated in this national study. Of those, 305 were enrolled in their first three years of study (73.7 %) and 109 (26.3%) in their final years of study. Students in their last years of study were typically interning in hospitals and other clinical facilities, which could explain the lower turnout. Additionally, in Ireland, most nursing programmes were four years with the exception of students in the General and Children's Nursing combined programme, which took four and a half years. There could be students who withdrew from the programme at some point in the first few years. Therefore, the total number of students available to participate in this group (years 4-5) could be smaller to begin with.

In the current study, students in year 1-3 scored high in general experience. Year 4-5 students scored high in more areas: general awareness and attitude, nursing classes and clinical instruction, and clinical practice. These results indicated that, as students progressed in their studies, they gained more awareness, possibly due to their nursing classes, clinical instruction, and clinical practice. However, there was no statistically significant difference between the two groups. Rew et al. (2003) had not found a statistically significant difference in those areas either (as students progressed in their studies in a baccalaureate nursing programme).

### ***8.6.4 Section 3: Experience/Education***

This discusses Section 3: Experience and Education. A significant difference was demonstrated with regard to both programme of study and experience on the mCAS. The current study explored the relationship between education and the experiences of nursing students and their cultural awareness when providing care to people when death was imminent

or at the time-of-death. Significantly, among all the questions asked of nursing students in this context, three indicated there were statistically significant relationships to cultural awareness, Q17, Q19, and Q20 (mCAS).

**Q17 of Section 3:** About which of the three different religious death rituals have you learnt in your current nursing programme? (Christianity, Islam, Hinduism)

The results indicated that there was no significant difference in the knowledge between those who learned and those who did not learn about Christianity or Islam in their current nursing programme. Whereas, those who learned about Hinduism indicated a statistically significant relationship to their cultural awareness (on the sub scale nursing classes and clinical instruction). Nursing students (n=360) answered that they did not learn about Hinduism in their current nursing programme as compared to (n=47) who said they learned about Hinduism in their current nursing programme. These results indicated that the vast majority (nearly 89%) did not learn about Hinduism in their current nursing programme. For those who said they had, it was unclear which school could have provided this education as the survey was anonymously aggregated.

Although, the number of students who learned about Hinduism was significantly low in Ireland, Hinduism was considered the third largest religion in the world, and the fourth largest group after Christianity, Islam, and non-religious persons in 2020 (WPR, 2023b). Hinduism was also a growing minority religion in Ireland (WPR, 2023a). It seemed important that nursing education included such large growing world religions in their nursing curriculum.

**Questions 19 and 20 of Section 3:** How do you feel your nursing programme to date has helped you gaining the knowledge you feel you need to support dying patients from different religious groupings, and, how do you feel your clinical placements have helped you to gain knowledge you feel you need in supporting dying patients from different religious groupings?

The study examined whether nursing programmes to date had helped students gain knowledge to support dying patients belonging to the three different religious groups. The results indicated that the nursing programme had statistically significant relationship to the

cultural awareness subscale, general experience and nursing classes and clinical instruction. The results of a recent study by Guo et al. (2023) also indicated a significant difference between those who attended a spiritual care course in nursing and those who did not attend a course. Similarly, Bishop et al. (2019) demonstrated a significant improvement in the symptom management and communication skills following nursing education. Education had a statistically significant impact on the nurses' clinical practice.

## **8.7 Knowledge: Programme of Study, Experience/Education**

### ***8.7.1 Section 1: Knowledge and Programme of Study***

The following discussion relates to Section 1: Demographic data. While there was no significant difference noted between cultural awareness and programme of study, in contrast to almost all other demographic characteristics there was a relationship between knowledge and programme of study. The current study demonstrated that the programme of study had a statistical relationship to the knowledge levels of nursing students. However, the sample size in each of the programmes was different. The results of the current study indicated that about half (n=201) of the participating students were enrolled in General Nursing, (48.6%), followed by Psychiatric Nursing (20.3%) and the other programmes to a lesser extent.

In Ireland, there were five programmes of study focused on General Nursing, Children's and General Nursing, Psychiatric Nursing, Intellectual Disability Nursing, and Midwifery. Students studying in Midwifery scored higher levels of knowledge, followed by Children's and General Nursing, General Nursing, and then Psychiatric Nursing. Students studying Intellectual Disability nursing had the lowest knowledge scores. As the current study was specific to testing the knowledge levels of students as related to religious death rituals, it could be that some programmes were less likely to teach or expose students to caring for people near death or at the time-of-death.

In Ireland, the Nursing and Midwifery Board of Ireland (NMBI) was responsible for setting the standards and requirements for nurse registration in the country (NMBI, 2023). The role of the NMBI was to promote high standards of professional education, training, practice and professional conduct among nurses and midwives. A revision of standards of requirements

that institutes used to develop curriculum was completed in 2016 and in May 2023 (NMBI, 2016, 2023). Domains of practice, competencies, and indicators represented standards set by the Board for evaluating curricula for undergraduate nursing education programmes. However, each higher education institution (HEI) had the choice of planning their own modules based on the standards and competencies set by NMBI. The NMBI did not specify a form of competency assessment, a process or critical elements for evaluating skills, knowledge and professional behaviour agreed at local level between HEIs.

The NMBI's core indicative content for registration (RGN, RCN, RNID, RPN) included topics such as sociology, which included globalisation, inequalities in health, end-of-life care, and palliative care (NMBI, 2023). There was no topic that appeared to cover culture, cultural competence, religion, or death care. Therefore, although a different type of study would be required to evaluate what information each HEI provided to students, it seemed important to advocate for those categories for instruction at the NMBI. The results of the current study clearly indicated that students lacked knowledge with regard to caring for people of different religions and with regard to religious death rituals.

Programme of study had a statistically significant relationship to student knowledge levels. However, even though Midwifery students scored slightly higher as compared to other programmes, the knowledge levels were still very low for all but a very few students (Table 39 and Table 40). This was very important. Hence the results of the current study indicated there should be uniformity of education provided within all programmes of study as cultural diversity continues to increase. Topics related to cultural competence, religion, and the death rituals practised by different religions were demonstrably essential for nursing students. Not only was this information important for nursing students and health care practitioners, it was critical care for patients at the end of their lives, and for their families.

### ***8.7.2 Section 3: Knowledge, Experience/Education***

In terms of knowledge, a variety of studies around the world reflected on knowledge of palliative, psychological, and spiritual care with similar results: knowledge was insufficient (Alwawi et al., 2022; Dimoula et al., 2019; Etafa et al., 2020; Radford, 2008, Timmins et al.,



2017; Westwood & Brown, 2019; Zeru et al., 2020). Lack of knowledge was the result of inadequate education and training in professional educational programs (Walsh, 2010). It seemed critical that nursing education include planned encounters with people who were of different cultural and religious backgrounds.

In the current study, Question 12 of Section 3 asked: Have you ever been present in an imminent death or death situation of a person? The current study results indicated that being present at a death or when death was imminent had a relationship to knowledge levels. Students who were present had higher knowledge levels than students who were not present in those situations.

Question 13 of Section 3 asked: Have you cared for a person of a different religious background in an imminent death or death situation? Results indicated that students who cared for a person in this context had higher knowledge levels than those who did not, indicating that such experience(s) influenced the knowledge levels of the students.

Question 15 of Section 3 asked: Outside of your current nursing programme, have you learnt about religious death rituals? Results indicated experiences outside of the academic environment had a significant relationship to the knowledge levels of students. This meant that having been present and having cared for someone at the time of death in the past was related to student knowledge at the time of the current study.

## **8.8 Cultural Encounters, Knowledge, and Competence**

Cultural competence and cultural encounters were very important concepts in the current study, so some discussion bears repeating in this Chapter. A growing body of literature recognised the importance of culturally competent care when encountering diversity in a health care setting (Campinha-Bacote, 2002; National Social Inclusion Office, 2012, 2019; Osmancevic et al., 2020; Papadopoulos et al., 2004; Rabie et al., 2020). Several studies indicated that encounters with different cultures could enhance nursing student cultural awareness and competence (Bohman & Borglin, 2014; Booth & Graves, 2018; Hultsjö et al., 2019; Lin et al., 2015; Smith-Miller et al., 2010). A review of the literature by Campinha-

Bacote (2011) revealed that the pivotal and key construct in the process of becoming culturally competent was experience with cultural encounters.

A cultural encounter was a practise that enabled healthcare providers to interact directly with people from varied cultural backgrounds (Campinha-Bacote, 2007). Students who engaged in cross-cultural experiences demonstrated increased awareness of global cultural differences, decreased stereotyping, inter-professional relationships, compassion care (Booth & Graves, 2018). The goals of cultural encounters were to continuously interact with patients from culturally diverse backgrounds in order to validate, refine, or modify knowledge of values, beliefs, and practices with regard to a cultural group, and to develop cultural desire (to learn), cultural awareness, cultural skill, and cultural knowledge (Campinha-Bacote, 2011), the constructs of cultural competence.

A critical finding in the current study was the relationship between cultural encounters and cultural knowledge. Most students in the current study learnt about religious death rituals primarily from classes and clinical instruction (60.5%), many (39.5%) learned from clinical practice (encounters) as stated earlier. Students who experienced cultural encounters demonstrated greater cultural awareness and knowledge. For example, there was a difference in knowledge noted between students who had encounters and those who did not, e.g., those who were present in an imminent death situation or at time-of-death (n=246, or 59.4% of 414 students), and who had cared for persons during such times (n=74, or 15.95%).

### **8.9 Knowledge Sources: (Q16, Q18, KQ23)**

The other sources of information identified in the current study were derived from three areas: outside of student nursing programmes (Q16 of Section 3 was a multi-response question), within their nursing programmes (Q18 of Section 3 was a multi-response question), and where else students might seek further information (KQ23 was an open-ended question). The multiple-choice questions occurred in Section 3 of the complete survey instrument. The open-ended question (KQ23) was the last question of Section 4, the Knowledge Questionnaire on Religious Death Rituals.

For the 196 students (Table 50) who learnt outside of their current nursing programme, 316 responses were checked. The most (28.8%) learnt from their own reading and 27.5% from social media and/or the Internet. Other students learnt from travelling abroad (10.4%); from a part-time job (10.1%); and 23.1% responded they had learnt from other sources. Students had the option to leave this question blank if they had not learnt about religious death rituals outside of their nursing programme.

For the 172 students (Table 58) who had learnt about religious death rituals within their current nursing programme, 300 responses were checked. Students learned primarily from clinical placements (22.7%), through meeting patients and families from different religions (18.7%), during student exchanges (10%), and in skills labs and small group tutorials to a lesser extent. Students had the option to leave this question blank if they had not learnt about religious death rituals within their nursing programme.

Additional sources of information were described in Chapter 7 (Figure 22). Of the 50 students responding that they had learnt (or also learnt) about religious death rituals from other sources not yet mentioned, 35 stated that they used the Bible, or asked patients or staff. From all of these responses, perhaps the most important takeaway was that less than three quarters (<75%) of all students (n=414) reported learning about religious death rituals within their nursing programme, and more learned from outside sources through self-education (reading and the internet). This indicated both a desire and a need to learn about other cultures and end-of-life religious practices. A desire to learn was a critical component of the Campinha-Bacote (2007) process of becoming culturally competent.

When the desire to learn was combined with the evidence that so few undergraduate students answered the KQ questions correctly in the current study (most of the 414 students were able to answer only three-to-six [3-6] of the 22 questions correctly as shown in Table 40), and over half answered “I don’t know” to 16 of the 22 questions on the Knowledge Questionnaire (Table 39), the need for comprehensive education around religious death rituals became strikingly clear.

As further evidence of the need for comprehensive education, the results shown in Table 40 (Frequency of Choosing the Correct Answer on the KQ) were compared to the Dublin City University (DCU) Satisfactory Academic Progress (SAP) Policy (rev. October 2018) which referenced the US Federal Regulations for students studying at DCU and the European Credit Transfer and Accumulation System (ECTS) (DCU, 2018b). Table 44 illustrates the grades students would have achieved on the KQ test of knowledge of religious death rituals for the three largest world religions. More than three-quarters (n=312) of the 414 students would have failed the test and less than 14% (n=57) would have received satisfactory or better grades.

**Table 44**

*Student Grades per ECTS on the KQ*

Percential (DCU)	ECTS Grade	Description	Correct Answers on the KQ
H1 = 70% +	A	Excellent	8
H2.1 = 60-69%	B	Very Good	12
H2.2 = 50-59%	C	Good	37
H3 = 46-49%	D	Satisfactory	0
H3 = 40-45%	E	Sufficient	45
Fail = 30-39%	FX	Fail - some work required	65
Fail <30%	F	Fail - considerable further work required	247

### 8.10 Limitations of the Study

In recruiting, it may have been optimal to collect data regarding where responses originated (at which HEI) in order to evaluate response rates by school and conduct additional outreach if representation seemed insufficient. While the total sample size was calculated for the national study, the sample size needed from each school was neither calculated nor tracked.

A limitation during the data collection was that the researcher completely relied upon the gatekeepers for promoting and recruiting participants for the online survey research. Follow up emails were sent to the gatekeeper asking them to email students at regular intervals, but the researcher could not ensure that regular follow up emails were sent. Follow-up was also requested when paper surveys were distributed but, likewise, the researcher in the current study could not ensure that additional outreach efforts were made. Face-to-face contact for

recruitment was thought to be a favourable approach, however this was not possible due to school confidentiality policies, and, as a student researcher, being limited with regard to funding, travel, and time constraints.

Another possible issue with regard to the current study was that the mCAS, KQ, and two sections of demographic questions made the survey quite lengthy. This may have contributed to the large number (320) of incomplete online surveys. Of 662 responses to the online survey, 48% were incomplete, and even a few deemed sufficiently complete had one or two incomplete responses.

### **8.11 Conclusions**

The current study reached a number of conclusions in terms of undergraduate nursing student knowledge and cultural awareness in the Republic of Ireland. The 414 students who participated in the current study from eight schools represented all four provinces in the Republic of Ireland, all four types of undergraduate nursing programmes and the Midwifery programme. Therefore, findings from this study might be generalizable to the national population of undergraduate nursing and midwifery students in Ireland.

Neither the literature nor the current study found a relationship between student demographics or professional profiles to cultural awareness. Age, gender, religious upbringing, whether practicing a religious faith, place of birth, and year of study were statistically unrelated to cultural awareness. The non-significant results obtained in the demographic data were, thus, significant findings in this study.

Programme of study had a statistically significant relationship to knowledge levels, with Midwifery student scoring higher, although knowledge levels were still very low for all students. Most students in the current study learnt about religious death rituals primarily from classes and clinical instruction (60.5%), many (39.5%) learned from clinical practice (encounters). However, 46.4%, responded that they had learned from their own reading, and 44.4% learned from social media. This indicated a desire to learn. Cultural awareness, knowledge, skills, the desire (to be effective), and cultural encounters were five distinct constructs leading to cultural competence (Campinha-Bacote, 2002, 2011; Harris et al., 2013).

Importantly, in contrast to the student self-reported above-average perceptions of cultural awareness, the national study results indicated that nursing students had an extremely low level of knowledge related to the death rituals of the three religions (Christianity, Islam and Hinduism) regardless of where they had learnt or attempted to learn about them. The number of students who answered KQ questions correctly in the current study was incredibly low, and at least half of the students answered “I don’t know” to 16 of the 22 questions of the KQ, representing a range from 200 to 364 of 414 students who did not know the answers to those questions. Most of the 414 students were able to answer only three-to-six (3-6) of the 22 questions correctly. More than three-quarters of the students (n=312) would have failed the KQ if it were a test given in the HEIs regarding religious death rituals based on ECTS scoring.

It was also very important that knowledge of death rituals positively correlated to clinical practice. Meaning, relevant clinical practice would be expected to increase knowledge. There had been no research found in the literature that measured this before, so this was a very important finding.

Hence the results of the current study indicated there should be uniformity of cultural education provided within all programmes of study as cultural diversity continues to increase in Ireland. Cultural competency could be mandated for nursing programmes by the NMBI. Topics related to cultural competence, religion, and the death rituals practised by different religions were demonstrably essential for nursing students. Not only was this information important for nursing students and health care practitioners to facilitate their own experiences when encountering dying patients of different cultures, it was critical care for patients at the end of their lives, and, further, how a person died remained in the memory of those who lived on in the community.

As stated earlier, when the evident desire to learn (Tables 36 and 38) was combined with the findings that so few undergraduate students answered KQ questions correctly (Table 40), and over half answered “I don’t know” nearly three-quarters of the questions on the Knowledge Questionnaire (Table 39), the need for comprehensive education around religious death rituals became clear.

## 8.12 Recommendations from the Literature Review

Studies that psychometrically tested the original CAS developed by Rew et al. (2003), including Krainovich-Miller et al. (2008) and Rew et al. (2014), and the modified CAS (Kumlien et al., 2020; McElroy et al., 2016); or translated version of the CAS (İz & Temel, 2016; Heeseung et al., 2015; Hadziabdic et al., 2016; Ličen et al., 2021; Oh et al., 2015; Safipour et al., 2016) provided results demonstrating satisfactory reliability and validity. Those authors recommended further and broader use with nursing populations and other health care workers, as does the researcher in the current study. Some recommendations from the literature included:

- Ličen et al. (2021) mentioned that cultural education typically included guest lectures, study-abroad programs, group discussions, and written reports.
- Courses on spiritual care could be implemented in curricula in both undergraduate and post graduate education (Rykkje et al., 2022).
- Studies highlighted palliative care education and indicated it should be provided as part of undergraduate nursing student education (Lombardo et al., 2022), Bishop et al., 2019).
- The literature indicated faculty preparation and knowledge could directly influence student learning outcomes (Alwawi et al., 2022).
- The cultural awareness of nursing staff could be continuously examined so that nurse leaders may evaluate efforts to promote cultural competency and suggest particular areas for staff development and leadership training (McElroy et al., 2016).
- To uniformly increase the cultural competence of nursing students, universities could include structured cultural content in their nursing curricula (Safipour et al., 2016).
- Incorporating practical, culture-related training could improve cultural awareness (Cruz et al., 2016) and knowledge.
- Rew et al. (2003) stated it would be wise to consider differences in cultural awareness that may exist between patient perceptions and student perceptions.

### **8.13 Recommendations from the Study Findings**

To overcome the challenges faced by nursing students and staff. Nursing education at all levels could be improved by strengthening both theoretical and, especially, practical tasks and encounters with regard to cultural awareness and knowledge of religious death rituals. The recommendations for the current study reflect ideas for education and policy makers, and for clinical practise:

#### ***8.13.1 Recommendations for Education and Policy Makers***

- It is recommended that end-of-life courses be integrated into academic curricula amongst all universities.
- Universities could include structured cultural content in their nursing curricula to uniformly increase the cultural competence of nursing students.
- Knowledge and awareness could be created by including learning objectives specific to death related rituals in the National Clinical Assessment Tool (NCAD).
- Education and policy makers could explore the pedagogy of teaching culture and knowledge of death rituals, and measure undergraduate nursing students knowledge in this context using an instrument like the KQ.
- Education and policy makers could explore how cultural awareness and knowledge are taught in other countries that have been experiencing globalisation.
- The NMBI's core indicative content for RGN, RCN, RNID, RPN licensing could include mandated studies, activities, and testing related to cultural competency. Institutions could then utilize cultural competence learning interventions such as simulations (simulated patients), problem-based learning, videos, community immersions, case-based discussions, reflections, formal academic courses, distance-learning methods, and exchange programs.

#### ***8.13.2 Recommendations for Practise***

The new knowledge scale (KQ) could be applied as part of a cultural competency implementation strategy. This could include collaboration between educators and educational institutions, policymakers, and the organisations involved in the support of undergraduate



nursing students. Policy makers in nursing education and clinical practice could influence health care for patients now and in the future.

- Nurse educators could continuously assess nursing students during clinical practice to evaluate student cultural competency, to suggest particular areas for student development, and to ensure adequate knowledge of death rituals.
- Educators could integrate practical, culture-related training to improve cultural awareness and knowledge of death rituals. Topics related to cultural competence, religion, and the death rituals practised by different religions were demonstrably essential for nursing students.
- Educators could ensure uniformity of student exposure during clinical practice so students learn about different death rituals.
- Educators could provide training on communication with people of different cultures and religions.
- Educators could encourage student communication with patients and family specifically when death is imminent and after death has occurred.
- Schools could ensure adequate support (equipment, resources, time and personnel) for the purposes outlined herein.

#### ***8.14 Recommendations for Future Research***

- The Knowledge Questionnaire and survey instrument overall could possibly be refined (shortened) and re-tested for reliability, and to inquire as to respondent burden.
- The Knowledge Questionnaire and survey instrument overall could be deployed in other settings and countries to expanding the reach of the instrument in a variety of contexts (including non-religious groups).
- Further research could focus on educators and healthcare staff involved in teaching students about cultural and religious care related to religious death rituals.
- Further research could be done with patients and family regarding cultural and religious care related to death rituals.

- A review of the cultural component across all undergraduate nursing curricula and branches nationally could be undertaken to standardise and improve the curriculum.
- Further research could focus on the effectiveness of pedagogical approaches used internationally to teach the religious death rituals to students.

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## Appendix A: Original Cultural Awareness Questionnaire 2003

**The University of Texas at Austin  
School of Nursing  
Cultural Awareness Student Survey  
Shirin Catterson, Jeff Cookston, Stephanie Martinez, Lynn Rew**

Use the scale of 1 to 7 (1=Strongly Disagree, 4=No Opinion, 7=Strongly Agree) to indicate how much you agree or disagree with each statement.

Please note that the questionnaire is only about your experiences at this school of nursing, not the entire University.

		General Experiences at this School of Nursing	Does Not Apply	Strongly Disagree			No Opinion			Strongly Agree
1	1.	The instructors at this nursing school adequately address multicultural issues in nursing	<input type="checkbox"/>	1	2	3	4	5	6	7
1	2.	This nursing school provides opportunities for activities related to multicultural issues.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	3.	Since entering this school of nursing my understanding of multicultural issues has increased.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	4.	My experiences at this nursing school have helped me become knowledgeable about the health problems associated with various racial and cultural groups.	<input type="checkbox"/>	1	2	3	4	5	6	7
<b>General Awareness and Attitudes</b>										
2	5.	I think my <i>beliefs and attitudes</i> are influenced by my culture.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	6.	I think my <i>behaviors</i> are influenced by my culture.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	7.	I often reflect on how culture affects beliefs, attitudes, and behaviors.	<input type="checkbox"/>	1	2	3	4	5	6	7
4 RC	8.	When I have an opportunity to help someone, I offer assistance less frequently to individuals of certain cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7
4 RC	9.	I am less patient with individuals of certain cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7
4	10.	I feel comfortable working with patients of all ethnic groups.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	11.	I believe nurses' own cultural beliefs influence their nursing care decisions.	<input type="checkbox"/>	1	2	3	4	5	6	7
4 RC	12.	I typically feel somewhat uncomfortable when I am in the company of people from	<input type="checkbox"/>	1	2	3	4	5	6	7

		cultural or ethnic backgrounds different from my own.								
<b>Nursing Classes/Clinical Instruction</b>										
4 RC	13.	I have noticed that the instructors at this nursing school call on students from minority cultural groups when issues related to their group come up in class.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	14.	During group discussions or exercises, I have noticed the nursing instructors make efforts to ensure that no student is excluded.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	15.	I think that students' cultural values influence their classroom behaviors (for example, asking questions, participating in groups, or offering comments.)	<input type="checkbox"/>	1	2	3	4	5	6	7
1 RC	16.	In my nursing classes, my instructors have engaged in behaviors that may have made students from certain cultural backgrounds feel excluded.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	17.	I think it is the nursing instructor's responsibility to accommodate the diverse learning needs of students.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	18.	My instructors at this nursing school seem comfortable discussing cultural issues in the classroom.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	19.	My nursing instructors seem interested in learning how their classroom behaviors may discourage students from certain cultural or ethnic groups.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	20.	I think the cultural values of the nursing instructors influence their behaviors in the clinical setting.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	21.	I believe the classroom experiences at this nursing school help our students become more comfortable interacting with people from different cultures.	<input type="checkbox"/>	1	2	3	4	5	6	7
1 RC	22.	I believe that some aspects of the classroom environment at this nursing school may alienate students from some cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7
5	23.	I feel comfortable discussing cultural issues in the classroom	<input type="checkbox"/>	1	2	3	4	5	6	7
1	24.	My clinical courses at this nursing school have helped me become more comfortable interacting with people from different cultures.	<input type="checkbox"/>	1	2	3	4	5	6	7

1	25.	I feel that this nursing school's instructors respect differences in individuals from diverse cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	26.	The instructors at this nursing school model behaviors that are sensitive to multicultural issues.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	27.	The instructors at this nursing school use examples and/or case studies that incorporate information from various cultural and ethnic groups.	<input type="checkbox"/>	1	2	3	4	5	6	7
<b>Research Issues</b>										
3	28.	The faculty at this school of nursing conducts research that considers multicultural aspects of health-related issues.	<input type="checkbox"/>	1	2	3	4	5	6	7
3	29.	The students at this school of nursing have completed theses and dissertation studies that considered cultural differences related to health issues.	<input type="checkbox"/>	1	2	3	4	5	6	7
3	30.	The researchers at this school of nursing consider relevance of data collection measures for the cultural groups they are studying.	<input type="checkbox"/>	1	2	3	4	5	6	7
3	31.	The researchers at this school of nursing consider cultural issues when interpreting findings in their studies.	<input type="checkbox"/>	1	2	3	4	5	6	7
<b>Clinical Practice</b>										
5	32.	I respect the decisions of my patients when they are influenced by their culture, even if I disagree.	<input type="checkbox"/>	1	2	3	4	5	6	7
5	33.	If I need more information about a patient's culture, I would use resources available on site (for example, books, videos, etc.).	<input type="checkbox"/>	1	2	3	4	5	6	7
5	34.	If I need more information about a patient's culture, I would feel comfortable asking people I work with.	<input type="checkbox"/>	1	2	3	4	5	6	7
5	35.	If I need more information about a patient's culture, I would feel comfortable asking the patient or a family member.	<input type="checkbox"/>	1	2	3	4	5	6	7
4 RC	36.	I feel somewhat uncomfortable working with the families of patients from cultural backgrounds different than my own.	<input type="checkbox"/>	1	2	3	4	5	6	7

## Appendix B: Modified Cultural Awareness Scale (mCAS)

(1=Strongly Disagree, 4=No Opinion, 7=Strongly Agree)

With regard to experiences at the students' own nursing programme.

R e s e a r c h e r  N o t e s	Q u e s t i o n  N u m b e r		D o e s  N o t  A p p l y	S t r o n g l y  D i s a g r e e				N o  O p i n i o n			S t r o n g l y  A g r e e
		<b>General Experiences at my School of Nursing</b>									
1	1.	The lecturers at my nursing school adequately address multicultural issues in nursing	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	2.	This nursing school provides opportunities for activities related to multicultural issues.	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	3.	Since entering this school of nursing, my understanding of multicultural issues has increased.	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	4.	My experiences at my nursing school have helped me become knowledgeable about the health problems associated with various racial and cultural groups.	<input type="checkbox"/>	1	2	3	4	5	6	7	
<b>General Awareness and Attitudes</b>											
2	5.	I think my <i>beliefs and attitudes</i> are influenced by my culture.	<input type="checkbox"/>	1	2	3	4	5	6	7	
2	6.	I think my <i>behaviors</i> are influenced by my culture.	<input type="checkbox"/>	1	2	3	4	5	6	7	
2	7.	I often reflect on how culture affects beliefs, attitudes, and behaviors.	<input type="checkbox"/>	1	2	3	4	5	6	7	
4 RC	8.	When I have an opportunity to help someone, I offer assistance less frequently to individuals of certain cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7	
4 RC	9.	I am less patient with individuals of certain cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7	
4	10.	I feel comfortable working with patients of all ethnic groups.	<input type="checkbox"/>	1	2	3	4	5	6	7	
2	11.	I believe nurses' own cultural beliefs influence their nursing care decisions.	<input type="checkbox"/>	1	2	3	4	5	6	7	
4 RC	12.	I typically feel somewhat uncomfortable when I am in the company of people from	<input type="checkbox"/>	1	2	3	4	5	6	7	

		cultural or ethnic backgrounds different from my own.									
<b>Nursing Lecturers/ Clinical instruction</b>											
4 RC	13.	I have noticed that the lecturers at my nursing school call on students from minority cultural groups when issues related to their group come up in class.	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	14.	During group discussions or exercises, I have noticed the lecturers make efforts to ensure that no student is excluded.	<input type="checkbox"/>	1	2	3	4	5	6	7	
2	15.	I think that students' cultural values influence their classroom behaviours (for example, asking questions, participating in groups, or offering comments.)	<input type="checkbox"/>	1	2	3	4	5	6	7	
1 RC	16.	In my nursing classes, my lecturers have engaged in behaviours that may have made students from certain cultural backgrounds feel excluded.	<input type="checkbox"/>	1	2	3	4	5	6	7	
2	17.	I think it is the nursing educator's responsibility to accommodate the diverse learning needs of students.	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	18.	My educators at my nursing school seem comfortable discussing cultural issues in the classroom.	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	19.	My nursing educators seem interested in learning how their classroom behaviours may discourage students from certain cultural or ethnic groups.	<input type="checkbox"/>	1	2	3	4	5	6	7	
2	20.	I think the cultural values of the lecturers influence their behaviours in the clinical setting.	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	21.	I believe the classroom experiences at my nursing school help our students become more comfortable interacting with people from different cultures.	<input type="checkbox"/>	1	2	3	4	5	6	7	
1 RC	22.	I believe that some aspects of the classroom environment at my nursing school may alienate students from some cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7	
5	23.	I feel comfortable discussing cultural issues in the classroom	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	24.	My clinical placements at this nursing school have helped me become more comfortable interacting with people from different cultures.	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	25.	I feel that my nursing school's lecturers respect differences in individuals from diverse cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7	
1	26.	The nursing lecturers at my nursing school model behaviours that are sensitive to multicultural issues.	<input type="checkbox"/>	1	2	3	4	5	6	7	



1	27.	The nursing lecturers at my nursing school use examples and/or case studies that incorporate information from various cultural and ethnic groups.	<input type="checkbox"/>	1	2	3	4	5	6	7
<b>Clinical Practice</b>										
5	28.	I respect the decisions of my patients when they are influenced by their culture, even if I disagree.	<input type="checkbox"/>	1	2	3	4	5	6	7
5	29.	If I need more information about a patient's culture, I would use resources available on site (for example, books, videos, etc.).	<input type="checkbox"/>	1	2	3	4	5	6	7
5	30.	If I need more information about a patient's culture, I would feel comfortable asking people I work with.	<input type="checkbox"/>	1	2	3	4	5	6	7
5	31.	If I need more information about a patient's culture, I would feel comfortable asking the patient or a family member.	<input type="checkbox"/>	1	2	3	4	5	6	7
4 RC	32.	I feel somewhat uncomfortable working with the families of patients from cultural backgrounds different than my own.	<input type="checkbox"/>	1	2	3	4	5	6	7

## Appendix C: Permission to Use and Modify the CAS Questionnaire

In mid-2021, permission was sought (and granted) to use and modify the CAS questionnaire developed by Rew et al. (2014) as detailed in the following emails (Figures C-1, 2, and 3).

Figure C- 1

*Permission Request to Use and Modify the CAS*

Request to use Cultural Awareness Questionnaire

External

Inbox

phd nina

N

Nipuna Thamanam <nipuna.thamanam2@mail.dcu.ie>

Wed, 30 Jun

2021, 12:56

to ellereu

Dear Dr Rew,

I am a first year PhD student in Dublin City University, Ireland. I am interested in conducting research on student nurses' level of cultural awareness. I would like to ask your permission to use the questionnaire you have developed - measuring cultural awareness in student nurses.

I greatly look forward to hearing from you.

Thanking You,

Kind regards,

Nipuna

### Permission to Use and Modify the CAS

1 / 1

*Specific Permission Request/Granted to Modify the CAS*

Yes, you have my permission.

## Appendix D: Knowledge Questionnaire

### Section 4

Undergraduate nursing students' knowledge of religious care provided at the time of death to an adult patient as practised by three religions of the world: Christianity, Islam, and Hinduism in a hospital setting.

This section explores your understanding of spiritual death care, which include (religious beliefs, rituals related to last rites, washing and touching of the body and religious symbols) across three religious groupings; Christianity (including Roman Catholicism and Protestant denominations), Islam, and Hinduism. Please choose one option for each question.

### Section 4

#### Questionnaire on Religious Death Rituals

1. A person is rushed to the hospital following a road traffic accident. The person is unconscious, and death is imminent for the person. The nurses caring for this person should ask the family members which of the following questions regarding the person's wishes for religious care?

- a. Is there anything you would like to tell us about the person's religion?
- b. Do you want us to call the hospital chaplain to cater for your religious needs?
- c. Is there anything you would like us to know about the person's wishes for religious care?
- d. I don't know



2. What message does this symbol communicate to nursing staff and visitors in a hospital setting?

- a. That the person is Not for Resuscitation (NFR)
- b. That the person belongs to a specific religion
- c. That the person is imminently dying or has died
- d. I don't know

#### Christianity (Catholic and Protestant denominations)

3. A person in the end stages of life is identified as a Christian; the nurse providing end-of-life care is aware that:

- a. Christians of different denominations have the same practices and beliefs
- b. Christians of different denominations have different practices and beliefs
- c. Christians of different denominations have the same beliefs but different practices
- d. I don't know

4. A Roman Catholic family who just experienced the death of their relative believe that the soul of their loved ones goes straight to heaven. However, if their loved one requires purification of their soul, the soul of the dead person could reside in a temporal state known as:

- a. Purgatory
- b. Hell
- c. Heaven
- d. I don't know

5. A person in the end stage of life in a hospital setting belonging to a Protestant denomination would mostly prefer their pastoral visit to:
- Sing hymns at the bedside
  - Offer prayers at the bedside
  - Provide the sacrament of the dying at the bedside
  - I don't know
6. In case of the imminent death of a Roman Catholic person in the hospital, the family usually requests nurses to contact the priest or chaplain to administer a specific sacrament called:
- Sacrament of the Eucharist
  - Sacramental of Viaticum
  - Sacrament of Confirmation
  - I don't know
7. Regarding cleaning and touching the dead body, the family of a person who is Christian would normally like the nurses to:
- Undertake normal washing of the dead body by nurses
  - Undertake washing of only specific parts of the body by nurses
  - Not to undertake washing of the dead body
  - I don't know
8. The common symbol chosen by Roman Catholic Christians as part of their death ritual in the hospital setting is:
- Plain cross
  - Crucifix
  - No religious symbols or icons
  - I don't know
9. The common symbol chosen by Christians such as the Church of Ireland, Evangelical church, Orthodox Christian, Methodist, Baptist, Lutheran and Presbyterian and Pentecostal Christian denominations as part of their death ritual in the hospital setting is:
- Plain cross
  - Crucifix
  - No religious symbols or icons
  - I don't know
10. The common symbol chosen by people belonging to Christian denominations such as Latter-Day-Saints, First Church of Christ, Scientist (also known as Christian Science), Jehovah's Witnesses, and Seventh-day Adventist Church as part of their death ritual in a hospital setting is:
- Plain cross
  - Crucifix
  - No religious symbols or icons
  - I don't know

## Hinduism

11. The nurse caring for a Hindu person notices the person wearing sacred items like sacred threads or tulsi beads around the neck. If for medical reasons it is necessary to remove the beads, the family wishes that nurses retie the beads or threads to the person's:
- Wrist (preferably left)
  - Wrist (preferably right)
  - Ankle (preferably right)
  - I don't know

12. A female person from India belonging to the Hindu religion in the end stages of life would generally prefer the important healthcare decisions be made by:
- The person herself
  - The senior member of the person's family
  - Relatives of the person
  - I don't know
13. A person of a Hindu religion dies in the hospital, and the family are conducting the customary preparation but are not immediately available; what is the action the nurse should take?
- Wait for instructions from the Hindu priest
  - Perform essential tasks only (such as removing tubes and cleaning excretions)
  - Do not touch the body
  - I don't know
14. A Hindu person in the last stages of life believes in particular religious' rituals to prepare for death. One of the rituals involves family providing:
- Holy water from river Tapi
  - Holy water from the river Ganges
  - Holy waters from the river Brahmaputra
  - I don't know
15. A dying person practising the Hindu religion believes that after they die, there is
- Rebirth of the soul
  - Rebirth of the body
  - Rebirth of soul in the same body
  - I don't know
16. The Hindu person believes in the cycle of:
- Life, death, and reincarnation
  - Birth, life and death
  - Reincarnation, life and death
  - I don't know

## Islam

17. A dying person who is identified as Muslim by the family believes:
- He/she will go to Mecca upon death
  - He/she will meet Prophet Mohammed right after his/her death
  - He/she goes to heaven only if he/she has been good
  - I don't know
18. Death is imminent for a female person who is Muslim. The family visiting the person would appreciate the nurses to do the following:
- Turn the person on their back with her feet in the north-easterly direction
  - Call the Imam to come to the bedside
  - Call the priest to come to the bedside
  - I don't know
19. A Muslim person in the last stages of life receives Islamic death rites, and one of these rites includes:
- Assisting the person in reciting a declaration of faith
  - Assisting the person with ablutions
  - Assisting the person in receiving the sacrament of the dying

d. I don't know

20. A Muslim person whose death is imminent wishes to be turned towards facing Mecca. In Ireland, it is turning towards:

- a. Southeast
- b. Northeast
- c. Southwest
- d. I don't know

21. Regarding cleaning and touching of the dead body, the family of a person who is a Muslim would like the nurses to:

- a. Undertake the normal washing of the dead body
- b. Not to undertake the normal washing of the dead body
- c. Undertake the normal dressing of the dead body
- d. I don't know

22. A female Muslim person dies in the hospital. The family of the person who died would appreciate the nurses providing essential care to be of:

- a. The same gender as the person who died
- b. A different gender to the person who died
- c. Gender does not matter
- d. I don't know

23. Finally, please list three sources from which you, as a student nurse, could get information related to care around death?

## Appendix E: List of Databases

The first column in Table E-1 shows the key words (from Appendix F) that were used to conduct the initial search in various databases prior to writing the literature review. The other columns show the number of articles that were found during the process of narrowing the search.

**Table E- 1**

*Databases Used in the Current Study*

	Databases				
	CINAHL Complete	MEDLINE	PsycINFO	COCHRANE	PUBMED
Keywords	Accessed 3 <sup>rd</sup> July 2021 Year 2000- 2021	Accessed 3 <sup>rd</sup> July 2021 Year 2000- 2021	Accessed 5 <sup>th</sup> July 2021 Year 1968- 2021	Accessed 6 <sup>th</sup> July 2021 Year 2000-2021	Accessed 10 <sup>th</sup> July 2021 Year 2000-2021
#1	24,249	30,989	3,493	9844	619,871
#2	47,678	29,884	4,119	3011	46,703
#3	157,028	96,938	28,052	26191	468,411
#4	491,719	1,695,132	49,231	3,16,794	1,919,125
#5	883,776	2,225,479	1,042,926	458,818	5,078,056
#6	145,034	227,419	294,575	17,775	1,252,992
#1 AND #2	1,201	781	36	60	3,243
#1 AND #2 AND #3	857	578	11	50	3,179
4,5,6	3,846	6,323	1264	1520	81,701
2,3,4 AND 6	73	83	4	35	511
4,5,6 AND 1	241	431	3	121	0
<b>Initial results -1,2 AND 4,5,6</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>150</b>



## **Appendix F: Key Words (Search Terms)**

1. Cultural awareness OR cultural sensitivity OR cultural knowledge OR cultural competence  
OR cultural conscious OR cultural comprehension OR cultural characteristics OR cultural  
disparities OR cultural factors OR cultural knowledge OR transcultural nursing care OR  
cultural humility OR culturally congruent care.
2. Nursing undergraduate student OR baccalaureate nurse OR pre- graduate nursing student  
OR bachelor of nursing trainee OR trainee nurse OR student nurse OR pre- licensure  
nursing OR nursing student.
3. Nursing care OR Nursing education
4. Death OR died OR dead OR demise OR Passing away OR mortality OR ending OR end of  
life OR loss of life OR die OR deceased
5. Rituals OR traditions OR customs OR patterns OR practices OR routines OR formalities  
OR ceremonies OR rites OR observances OR religious rituals
6. Faith OR beliefs OR religiosity OR spirituality OR spiritual OR conviction OR affiliation  
OR religion OR Roman Catholic OR Catholic church OR Roman OR Romanist OR papist  
OR church of Rome OR Protestant church OR Hinduism OR Hindu OR Islam OR Muslim  
OR Islamist OR Sunni's religion OR Shia religion OR Christian OR Christianity

## **Appendix G: Plain Language Statement**

Irish Undergraduate Nursing Students' Cultural Awareness and Knowledge of Death Rituals  
Practised by Three World Religions (Christianity, Islam, and Hinduism)  
(Plain language statement, national study)

### **Introduction to the Current Study**

'Irish undergraduate nursing students' cultural awareness and knowledge of death rituals practised by three world religions (Christianity, Islam and Hinduism)'.

DCU, School of Nursing, Psychotherapy and Community Health

Principal Investigator: Nipuna Thamanam

Contact details: nipuna.thamanam2@mail.dcu.ie

Other Investigators: Dr Daniela Lehwaldt, Dr Mary Rose Sweeney

About the national study and what is it about?

You are kindly invited to participate in a quantitative survey measuring undergraduate student nurses' cultural awareness and knowledge of death rituals practised by three world religions (Christianity, Islam and Hinduism) in the Republic of Ireland. In order to gather the information, I will invite you to complete the online survey. The survey will take approximately 20 minutes to complete.

The questionnaire is completely anonymous, no names and no personal data will be identified. The questionnaire is divided into the following four sections:

Section 1- Demographic data

Section 2 - Cultural Awareness Scale

Section 3 - Experience and Education of student nurses' regarding religious death care

Section 4 - Knowledge of religious death care

### **Who can Participate in the National Study?**

Registered undergraduate nursing students studying in Ireland are invited to take part in the national study.

### **Implications for Participants and Privacy**

I want to reassure you that your privacy is protected as the information that you give will be dealt with the confidence of anonymity. There will be no personal identifier on the survey. Participation in this national study is on a voluntary basis, which means you can decide if you want to complete it or not, and you can withdraw from the survey at any point in time without any repercussions.

### **Advice as to arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations**

It is important that you are aware of confidentiality of information provided cannot always be guaranteed by researchers and can only be protected within the limitations of the law. It is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. However, the risk had been advised by the DCU chief operations officer to be low due to the anonymity of the survey.

### **Personnel Data GDPR Compliance is there a Risk?**

I have discussed with the DCU Office of the Chief Operations Officer and there is no risk to GDPR as the survey is anonymous. I do not wish to have any of your personal data.

Please DO NOT include any personnel information such as, for example, personal details or NMBI Pin Number

**How Will the Data Used Be Disposed of?**

The data you provide will be password protected. Only myself as the researcher and my supervisors will have access to the data. Data will be destroyed after five years, after the study is completed. There are no legal implications of data confidentiality as the data is anonymous.

**Benefits of Taking Part in the National Study?**

By taking part in this national study, you will assist a fellow nurse in measuring cultural awareness of student nurses and also help in developing a new tool to measure student nurses' knowledge of religious death care. By completing the survey, you may also develop an awareness of religious death rituals of three world religions.

**What are the Risks of Taking Part in This National Study?**

I do not envisage any risks to your taking part in this national study, as the survey is anonymous. The survey will take approximately 20 minutes to complete.

**If I change my mind?**

You can withdraw from the study at any time during the online survey, without giving an explanation and without any problems.

**How will I find out about the national study?**

It is envisaged that the data collected will be analysed and published. There are NO GDPR issues for this national study as personnel Data is not collected and the survey is anonymous.

**If you have any questions about this national study, my contact details are as follows:**

Nipuna Thamanam (nipuna.thamanam2@mail.dcu.ie). My supervisors are, Dr Daniela Lehwaldt (Daniela.lehwaldt@dcu.ie) and Dr Mary Rose (maryrose.sweeney@dcu.ie).

**Funding for this study is as follows:**

The research is funded by School of Nursing, Psychotherapy and Community Health, Dublin City University, Dublin.

*If you have any concerns about this national study and wish to contact an independent person, please contact:*

The Secretary, Chair of Ethics Committee, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000, e-mail rec@dcu.ie.

## **Appendix H: Consent Form**

### **Informed Consent for National Study**

I have read and understand the plain language statement about the study: 'A national study to measure undergraduate student nurses' cultural awareness and knowledge of death rituals practised by three world religions (Christianity, Islam and Hinduism) in the Republic of Ireland.'

If you are satisfied, please tick "I consent to take part in this national study" below. If you opt to not participate in the national study, please close this browser.

## Appendix I: Ethics Approval Letters

### Dublin City University Approvals

This Appendix includes two parts, the Dublin City University ethics approvals and approvals from the other seven universities that participated in the current study. Figures I1-3 include the ethics approval letters received during study development from Dublin City University Research Ethics Committee. The first letter (Figure I-1, dated January 26, 2022), provided initial approval for the project. The subsequent letters (Figure I-2, Figure I-3) provided approval as the project was amended. The second section of this Appendix includes approvals from the other seven institutions which participated in the current study.

### Figure I- 1

#### *Ethics Approval Letter*

Ollscoil Chathair Bhaile Átha Cliath  
Dublin City University



Ms. Nipuna Thamanam  
School of Nursing, Psychotherapy and Community Health

Dr. Daniela Lehwaldt  
School of Nursing, Psychotherapy and Community Health

Dr. Melissa Corbally  
School of Nursing, Psychotherapy and Community Health

26<sup>th</sup> January 2022

**REC Reference:** DCUREC/2021/259

**Proposal Title:** A national study to explore undergraduate student nurses' knowledge and attitudes of death related religious rituals practised by the three major world religions (Christianity, Islam and Hinduism).

**Applicant(s):** Ms. Nipuna Thamanam, Dr. Daniela Lehwaldt, and Dr. Melissa Corbally

Dear Colleagues,

Thank you for your application to DCU Research Ethics Committee (REC). Further to expedited review, DCU REC are pleased to issue approval for this research proposal.

DCU REC's consideration of all ethics applications are dependent upon the information supplied by the researcher. This information is expected to be truthful and accurate. Researchers are responsible for ensuring that their research is carried out in accordance with the information provided in their ethics application.

Materials used to recruit participants should note that ethical approval for this project has been obtained from the Dublin City University Research Ethics Committee. Should substantial modifications to the research protocol be required at a later stage, a further amendment submission should be made to the REC.

Yours sincerely,

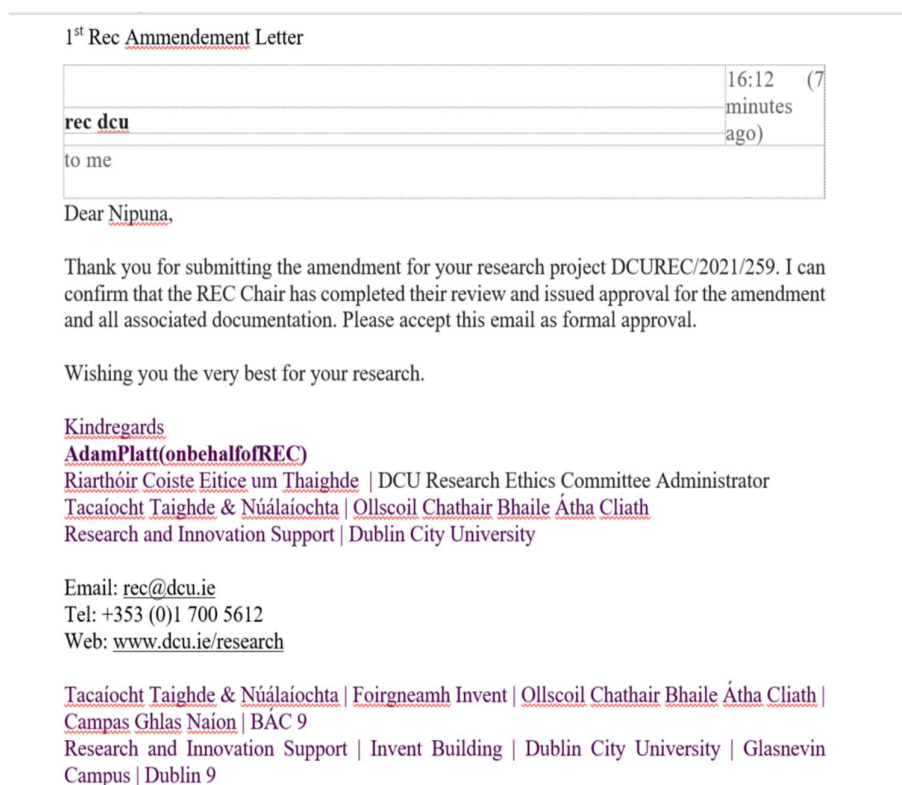


Taighde & Nuálaíocht Tacaíocht  
Ollscoil Chathair Bhaile Átha Cliath  
Dublin City University

The first amendment was received in May 2022 when there was a change from using the Knowledge Questionnaire (KQ) and an attitude scale, to using the KQ and the mCAS. The second amendment (November 2022) was necessary to include paper surveys when the online survey response did not meet the calculated minimum needed for the current study.

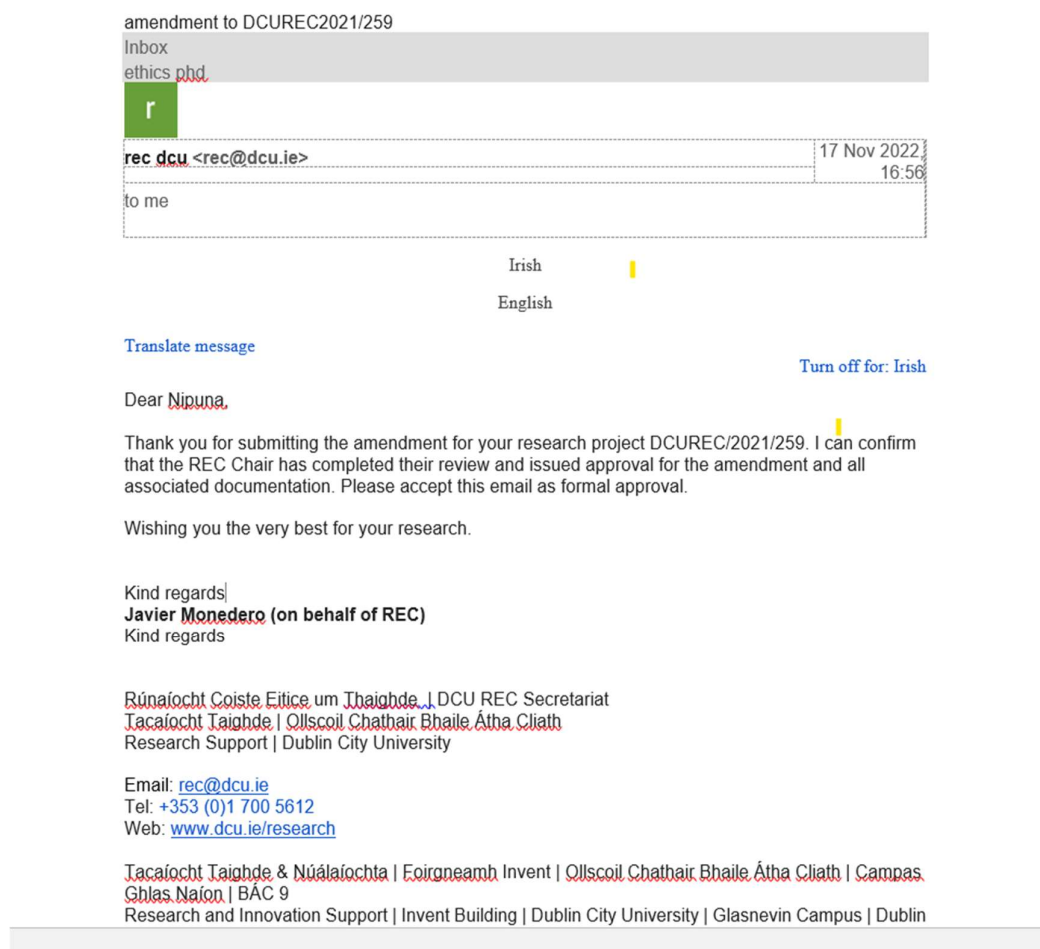
## Figure I- 2

### *First Amendment Approval Letter*



## Figure I- 3

### *Second Amendment Approval Letter*



## Participating School Approvals

This section includes copies of the seven approval emails received from the seven universities, other than DCU, which participated in the current study.

### *Trinity College Dublin*

Fintan Sheerin

Fri, 25 Mar, 14:04 (3 days ago)

Dear Nipuna

We will be happy to accept the ethical approval of DCU by way of a copy of the approval letter.

Best wishes

Fintan

Dr Fintan Sheerin, An Dr Fionntán Ó Sirín  
Associate Professor in Intellectual Disability Nursing  
Head of School  
Editor-in-Chief, *Journal of Intellectual Disabilities*  
School of Nursing and Midwifery  
Trinity College Dublin, The University of Dublin  
24 D'Olier Street  
Dublin 2, Ireland.  
D02 CK80

+353 1 896 4072

[sheerinf@tcd.ie](mailto:sheerinf@tcd.ie)

[www.tcd.ie](http://www.tcd.ie)

*'Only utopianism and hope will enable us to believe, and give us strength to try – together with all the world's poor and oppressed people – to reverse history, to subvert it, and to move it in a different direction.'* (Ellacuriá 1989:1078)

***St. Angela's College***

Manus, Evelyn

09:21 (1 hour ago)

Dear Nipuna,  
I can confirm that you can proceed and St. Angela's College is happy as your study is approved by DCU.

Best wishes  
*Kind Regards*

*Evelyn*

*I work flexibly, I do not expect a response or action outside of your working hours.*

***Ceann Gníomhach,  
Scoil Altranais, Eolaíochtaí Sláinte agus Míchumais,  
Coláiste San Aingeal,  
Coláiste de chuid Ollscoil na hÉireann,  
Gaillimh Loch Gile,  
Chontae Shligigh.  
Éire***

***Dr. Evelyn McManus  
Acting Head, School of Nursing, Health Sciences and Disability  
St Angela's College, Lough Gill, Co. Sligo, Ireland  
(A College of the National University of Ireland, Galway)***

***Direct Line: 353 71 91 35615***

***Email: [emcmanus@stangelas.nuigalway.ie](mailto:emcmanus@stangelas.nuigalway.ie)***

***[www.stangelas.nuigalway.ie](http://www.stangelas.nuigalway.ie)***



***\*\*Please do not feel obliged to read or respond to this email outside of your normal working hours\*\****

---

***National University of Ireland, Galway***

Dear Nipuna

Thank you for your email and attachments.

Please send on your letter or email which we will send, on your behalf, to our undergraduate students, along with the study details that you attached. This email should include a focus on ascertaining students interest in participating in your study and include your contact details so that students who are interested in participating can then contact you direct. I suggest that you also state that full ethical approval has been obtained from DCC and ref number.

Hope this is helpful

Kindest regards

Dympna

HI Nipuna

We are not permitted to share the email contact details of students. What we can do, as mentioned, is circulate your email to the students which outlines the study and tells them about consent and has your contact details so they can contact you direct re any queries etc ; you could consider adding the link to the survey in your email for anyone who wishes to complete the survey.

Kindest regards

Dympna

***University College Dublin***

UCD SNMHS Head

11:22 (58 minutes ago)

Dear Nipuna,

The UCD School of Nursing, Midwifery and Health System is happy to accept your request.

Ms Aisling Jackman, Senior Research Administrator, has kindly agreed to be your link person to act as a gatekeeper in circulating your online questionnaire and will be contactable from week commencing 18th April by email: [aisling.jackman@ucd.ie](mailto:aisling.jackman@ucd.ie)

Kind regards,

Valerie

Office of the Dean of Nursing and Head of School  
UCD School of Nursing, Midwifery and Health Systems,  
B115, UCD Health Sciences Centre,  
University College Dublin,  
Belfield, Dublin 4, Ireland.

Tel: 01 716 6434 Mob: 087 746 7966

Web: [www.nmhs.ucd.ie](http://www.nmhs.ucd.ie)

***Letterkenny Institute of Technology***

McBride Louise

Wed, 27 Apr, 20:00 (2 days ago)

Apologies for delay in replying Nipuna

I accept DCU Ethics approval and support request to act as gatekeeper.

This has been forwarded to all our ATU Undergraduate Nursing students registered i.e. general, mental health and intellectual disability disciplines.

Good luck with your research endeavours and kind regards to Mary Rose.

Regards

Louise

Dr Louise McBride

Head of Department Nursing and Health Care

ATU, Port Road, Letterkenny, Co Donegal, F92 FC93

Landline: (074) 91 86303

Email: [Louise.mcbride@lyit.ie](mailto:Louise.mcbride@lyit.ie)

***University of Limerick***

Hi Nipuna

Thanks for your email and apologies for the delayed response.

The committee were happy to approve access for you to send your questionnaire to our students.

When you are ready to commence your study please get back to me and I will give you the name of the person to contact that will circulate your questionnaire to the students for you.

Many thanks

Le gach dea-mhéin

Pauline

Head, Department of Nursing and Midwifery

Dr Pauline Meskell | HS3-039| Dept of Nursing & Midwifery| Education & Health Sciences Faculty | Health Sciences Building | University of Limerick | Limerick V94T9PX | Ollscoil Luimnigh, V94 T9PX, Eire ☐: [Pauline.meskell@ul.ie](mailto:Pauline.meskell@ul.ie) | + 353-61 - 202415: [www.ul.ie/nm](http://www.ul.ie/nm)

***Dundalk Institute of Technology)***

Ms Nipuna Thamanam,  
PhD Student,  
School of Nursing, Psychotherapy and Community Health,  
DCU,  
Dublin 9  
10th Feb 2022

Re: A national study to explore undergraduate student nurses' knowledge and attitudes of death related religious rituals practised by the three major world religions (Christianity, Islam and Hinduism).

Dear Nipuna,

The above study was reviewed by the School of Health & Science Ethics Committee. It is noted that the study is approved by DCU. This study is now granted ethical approval.

Wishing you the best of luck with your research.  
Yours sincerely,

---

Dr.Edel Healy  
Chair of School of Health & Science Ethics Committee

## **Appendix G: Letter from DCU Data Protection Officer**

Good morning Nipuna,

Many thanks for your assistance with assessing the potential data protection risks associated with your research project.

Having reviewed the completed DPIA Screening Questionnaire and the updated research project questionnaire, I think that this reduces the likelihood of individual participants being identifiable from the responses. If that is the case, then the data is anonymous, and therefore data protection rules do not apply.

This concludes the data protection assessment process on the project as-is.

However, I will add two related points, which you may want to think about for this or future research projects:

First is that the PI and research team will need to be mindful of the possibility that a combination of responses could make a participant identifiable. Although the possibility of this is low, if this does occur, the researchers will be processing personal data, and will be bound by data protection rules. In such circumstances, the PI will need to consider whether to retain this participant's responses (and therefore data protection rules will apply), or to delete the participant's responses.

Second is in relation to the amended Questionnaire. Removing some of the questions is welcome, insofar as data protection rules require minimising data collection and processing, limiting it only to what is required for the intended purpose of the research. However, it is important to know that data protection does not necessarily mean that a research project should be adversely impacted, or that the research power of the project should be diminished. Rather, the idea is to ensure the research proceeds in a way that is compliant with data protection rules. (It is unusual that a research project is so risky from a data protection perspective that it cannot proceed.)

Therefore, please do consider from your perspective as a researcher whether amending the project Questionnaire still allows you to answer your research question.

If you have any questions for me, please don't hesitate to let me know.

In the meantime, may I wish you the very best of luck with this interesting and important project.

Kind regards,

Joan.

## Appendix J: Content Validity, Expert Evaluation Instructions/Form

### Content validity instructions for the survey questionnaire

#### Introduction:

Validity is a fundamental and essential step in the selection or application of a research instrument. It is important to identify whether an instrument measures what it is designed to measure (Lynn, 1986). Content validity determines clarity, relevance and essentiality of the content through its developmental or judgmental process (Lynn, 1986). In a self-reported questionnaire, it measures the degree to which each item corresponds to its construct domain (Field, 2013) and eliminates the undesirable items. This research study aims to explore undergraduate nursing students' knowledge of the religious death rituals of three major world religions: Christianity, Islam and Hinduism in Ireland.

The survey instrument comprises twenty-two multiple-choice questions and one open-ended question related to knowledge of the religious death rituals. This survey also intends to measure undergraduate nursing students' cultural awareness by using a previously validated tool. The survey will be administered to nursing students nationally who are registered with their professional regulatory body (NMBI) and are 'willing to take part' in the study from eight HEI's in Ireland. This survey will be accompanied by an invitation letter, the Participant Information Leaflet (PIL) and the Consent Forms.

The instructions to expert reviewers for the rating of items in a measure are as follows:

1. To review each item corresponding to their construct domain and intended audience for:
  - a. clarity or understanding
  - b. relevance or importance or effectiveness or appropriateness
  - c. essentiality of the items
2. To rate each item using a four-point Likert scale:
  - a. Please rate the level of **clarity** for each item on a scale of 1-4, with 4 being the clearest.  
1=item is not clear  
2=item needs major revisions to be clear  
3=item needs minor revisions to be clear  
4=item is clear
  - b. Please rate the **relevance or importance** of the item in measuring the aligned overarching construct on a scale of 1-4, with 4 being the most essential.  
1=item is not necessary to measure the construct  
2=item provides some information but is not essential to measure the construct  
3=item is not useful but essential to measure the construct  
4=item is essential to measure the construct
  - c. Please rate the **essentiality** of item in measuring the aligned overarching construct on a scale of 1-3, with 3 being the most essential.  
1=item is not essential  
2=item is useful but not essential  
3=item is essential

Construct	Items	Item (source)	Clarity	Relevance	Essentiality	Comments

3. To leave your comments for each item to recommend phrasing to make it clearer or better or to delete all or for any additional information.

What additional item/s would you recommend including to measure the construct?
What additional item/s would you recommend deleting?
Please provide any additional information you believe may be useful in assessing the identified construct with this instrument

I acknowledge the amount of time and endurance required for the content validity of this survey questionnaire. Thank you very much for your expertise, support and encouragement.

Yours sincerely,

Nipuna Thamanam

PhD student

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## Appendix K: Final Instrument

*(Note: Section 4 (KQ) contains the correct answers highlighted in yellow for the purpose of presenting information relative to the dissertation detailed the current study. The highlights were not included in the final instrument used in the national study.)*

Dear students,

This is a questionnaire to measure cultural awareness and knowledge amongst nursing students about religious death rituals practised across three world religions. The study is anonymous, meaning that your individual details and responses will be kept confidential. The data will be analysed and used to write a report on the main findings arising from the study.

This survey will gather some background information about you

### Section I: Background information

1 (a) This section is about you.

Please answer ALL questions.

1. Which age bracket represents your current age? (Tick one box only)
  - a. <18
  - b. 19-28
  - c. 29-38
  - d. 39-48
  - e. 49-59
  - f. >60
2. What is your gender? (Tick one box only)
  - a. Male
  - b. Female
  - c. Other
3. Where were you born? (Tick one box only)
  - In Ireland
  - Outside of Ireland
4. Were you brought up in a religious faith? (Tick one box only)
  - Yes
  - No
5. Would you consider yourself to be a practising religious person? (Tick one box only)
  - Yes
  - No
6. What year of your nursing programme are you currently in? (Tick one box only)
  - 1-3 years
  - 4-5 years
7. Which programme are you currently studying? (Tick one box only)
  - a. General Nursing

- b. Children's and General Nursing (Integrated)
- c. Midwifery
- d. Intellectual Disability Nursing
- e. Psychiatric Nursing

## Section 2 Cultural Awareness Scale

This section measures your awareness of cultural issues relevant to nursing  
Use the scale of 1 to 7 (1=Strongly Disagree, 4=No Opinion, 7=Strongly Agree) to indicate how much you agree or disagree with each statement.

Please note that the questionnaire is only about your experiences at your school of nursing.

		<b>General Experiences at my School of Nursing</b>	Does Not Apply	Str on gly Di sa gr ee			No O pi ni on			Stron gly Agree
1	1.	The lecturers at my nursing school adequately address multicultural issues in nursing	<input type="checkbox"/>	1	2	3	4	5	6	7
1	2.	This nursing school provides opportunities for activities related to multicultural issues.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	3.	Since entering this school of nursing, my understanding of multicultural issues has increased.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	4.	My experiences at my nursing school have helped me become knowledgeable about the health problems associated with various racial and cultural groups.	<input type="checkbox"/>	1	2	3	4	5	6	7
<b>General Awareness and Attitudes</b>										
2	5.	I think my <i>beliefs and attitudes</i> are influenced by my culture.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	6.	I think my <i>behaviors</i> are influenced by my culture.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	7.	I often reflect on how culture affects beliefs, attitudes, and behaviors.	<input type="checkbox"/>	1	2	3	4	5	6	7
4 RC	8.	When I have an opportunity to help someone, I offer assistance less frequently to individuals of certain cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7
4 RC	9.	I am less patient with individuals of certain cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7
4	10.	I feel comfortable working with patients of all ethnic groups.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	11.	I believe nurses' own cultural beliefs influence their nursing care decisions.	<input type="checkbox"/>	1	2	3	4	5	6	7
4 RC	12.	I typically feel somewhat uncomfortable when I am in the company of people from cultural or ethnic backgrounds different from my own.	<input type="checkbox"/>	1	2	3	4	5	6	7
<b>Nursing Lecturers/ Clinical instruction</b>										
4 RC	13.	I have noticed that the lecturers at my nursing school call on students from minority cultural groups when issues related to their group come up in class.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	14.	During group discussions or exercises, I have noticed the lecturers make efforts to ensure that no student is excluded.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	15.	I think that students' cultural values influence their classroom behaviours (for example, asking questions, participating in groups, or offering comments.)	<input type="checkbox"/>	1	2	3	4	5	6	7
1 RC	16.	In my nursing classes, my lecturers have engaged in behaviours that may have made students from certain cultural backgrounds feel excluded.	<input type="checkbox"/>	1	2	3	4	5	6	7



2	17.	I think it is the nursing educator's responsibility to accommodate the diverse learning needs of students.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	18.	My educators at my nursing school seem comfortable discussing cultural issues in the classroom.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	19.	My nursing educators seem interested in learning how their classroom behaviours may discourage students from certain cultural or ethnic groups.	<input type="checkbox"/>	1	2	3	4	5	6	7
2	20.	I think the cultural values of the lecturers influence their behaviours in the clinical setting.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	21.	I believe the classroom experiences at my nursing school help our students become more comfortable interacting with people from different cultures.	<input type="checkbox"/>	1	2	3	4	5	6	7
1 RC	22.	I believe that some aspects of the classroom environment at my nursing school may alienate students from some cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7
5	23.	I feel comfortable discussing cultural issues in the classroom	<input type="checkbox"/>	1	2	3	4	5	6	7
1	24.	My clinical placements at this nursing school have helped me become more comfortable interacting with people from different cultures.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	25.	I feel that my nursing school's lecturers respect differences in individuals from diverse cultural backgrounds.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	26.	The nursing lecturers at my nursing school model behaviours that are sensitive to multicultural issues.	<input type="checkbox"/>	1	2	3	4	5	6	7
1	27.	The nursing lecturers at my nursing school use examples and/or case studies that incorporate information from various cultural and ethnic groups.	<input type="checkbox"/>	1	2	3	4	5	6	7
<b>Clinical Practice</b>										
5	28.	I respect the decisions of my patients when they are influenced by their culture, even if I disagree.	<input type="checkbox"/>	1	2	3	4	5	6	7
5	29.	If I need more information about a patient's culture, I would use resources available on site (for example, books, videos, etc.).	<input type="checkbox"/>	1	2	3	4	5	6	7
5	30.	If I need more information about a patient's culture, I would feel comfortable asking people I work with.	<input type="checkbox"/>	1	2	3	4	5	6	7
5	31.	If I need more information about a patient's culture, I would feel comfortable asking the patient or a family member.	<input type="checkbox"/>	1	2	3	4	5	6	7
4 RC	32.	I feel somewhat uncomfortable working with the families of patients from cultural backgrounds different than my own.	<input type="checkbox"/>	1	2	3	4	5	6	7

**Section 3.** This section captures your experiences in caring for people with different cultural/religious needs where their death is imminent (about to happen) or has just happened.

1. Have you ever been present when a patient's death is imminent? (Tick one box only)

- Yes
- No

1(b) Have you ever cared for a person of a different religious background in an imminent death or death situation? (Tick one box only)

- Yes
- No

2. How often have you cared for a patient from any of the following religious backgrounds in an imminent death or death situation? (Tick one box only)

Christianity	Islam	Hinduism
● Never	Never	Never

- |             |           |           |
|-------------|-----------|-----------|
| ● Rarely    | Rarely    | Rarely    |
| ● Sometimes | Sometimes | Sometimes |
| ● Often     | Often     | Often     |

3. Outside of your current nursing programme, have you learnt about religious death rituals?

- yes
- no

3(a) If yes, where did you learn about religious death rituals? (Tick all relevant answers)

- Own reading
- Travelling abroad
- Social-Media / internet
- part-time job
- Other, please provide details

4. About which of the three different religious death rituals have you learnt in your current nursing programme?

- |              |       |          |
|--------------|-------|----------|
| Christianity | Islam | Hinduism |
| ● Yes        | Yes   | Yes      |
| ● No         | No    | No       |

4 (b) If yes, where did you learn about the different death rituals during your current nursing programme? (Tick all relevant options)

- Classroom / lecture theatre
- small group tutorials
- Skills lab
- Clinical placement, example preceptor, CPC
- during Student exchanges
- through meeting patients and family members from different religions
- Other, please specify

5. How do you feel your nursing programme to date has helped you gaining the knowledge you feel you need to support dying patients from different religious groupings?

- Not at all
- Somewhat
- Very well

6. How do you feel that your clinical placements to date has helped you gain knowledge you feel you need to support dying patients from different religious groupings?

- Not at all
- Somewhat
- Very well

#### Section 4

Undergraduate nursing students' knowledge of religious care provided at the time of death to an adult patient as practised by three religions of the world: Christianity, Islam, and Hinduism in a hospital setting.

This section explores your understanding of spiritual death care, which include (religious beliefs, rituals related to last rites, washing and touching of the body and religious symbols) across three religious groupings; Christianity (including Roman Catholicism and Protestant denominations), Islam, and Hinduism. Please choose one option for each question.

## Section 4

### Questionnaire on Religious Death Rituals

1. A person is rushed to the hospital following a road traffic accident. The person is unconscious, and death is imminent for the person. The nurses caring for this person should ask the family members which of the following questions regarding the person's wishes for religious care?

- e. Is there anything you would like to tell us about the person's religion?
- f. Do you want us to call the hospital chaplain to cater for your religious needs?
- g. Is there anything you would like us to know about the person's wishes for religious care?
- h. I don't know



2. What message does this symbol communicate to nursing staff and visitors in a hospital setting?

- e. That the person is Not for Resuscitation (NFR)
- f. That the person belongs to a specific religion
- g. That the person is imminently dying or has died
- h. I don't know

### Christianity (Catholic and Protestant denominations)

3. A person in the end stages of life is identified as a Christian; the nurse providing end-of-life care is aware that:

- e. Christians of different denominations have the same practices and beliefs
- f. Christians of different denominations have different practices and beliefs
- g. Christians of different denominations have the same beliefs but different practices
- h. I don't know

4. A Roman Catholic family who just experienced the death of their relative believe that the soul of their loved ones goes straight to heaven. However, if their loved one requires purification of their soul, the soul of the dead person could reside in a temporal state known as:

- e. Purgatory
- f. Hell
- g. Heaven
- h. I don't know

5. A person in the end stage of life in a hospital setting belonging to a Protestant denomination would mostly prefer their pastoral visit to:

- e. Sing hymns at the bedside
- f. Offer prayers at the bedside
- g. Provide the sacrament of the dying at the bedside
- h. I don't know

6. In case of the imminent death of a Roman Catholic person in the hospital, the family usually requests nurses to contact the priest or chaplain to administer a specific sacrament called:

- e. Sacrament of the Eucharist
- f. Sacramental of Viaticum
- g. Sacrament of Confirmation

- h. I don't know
7. Regarding cleaning and touching the dead body, the family of a person who is Christian would normally like the nurses to:
- e. Undertake normal washing of the dead body by nurses
  - f. Undertake washing of only specific parts of the body by nurses
  - g. Not to undertake washing of the dead body
  - h. I don't know
8. The common symbol chosen by Roman Catholic Christians as part of their death ritual in the hospital setting is:
- e. Plain cross
  - f. Crucifix
  - g. No religious symbols or icons
  - h. I don't know
9. The common symbol chosen by Christians such as the Church of Ireland, Evangelical church, Orthodox Christian, Methodist, Baptist, Lutheran and Presbyterian and Pentecostal Christian denominations as part of their death ritual in the hospital setting is:
- e. Plain cross
  - f. Crucifix
  - g. No religious symbols or icons
  - h. I don't know
10. The common symbol chosen by people belonging to Christian denominations such as Latter-Day-Saints, First Church of Christ, Scientist (also known as Christian Science), Jehovah's Witnesses, and Seventh-day Adventist Church as part of their death ritual in a hospital setting is:
- e. Plain cross
  - f. Crucifix
  - g. No religious symbols or icons
  - h. I don't know

## **Hinduism**

11. The nurse caring for a Hindu person notices the person wearing sacred items like sacred threads or tulsi beads around the neck. If for medical reasons it is necessary to remove the beads, the family wishes that nurses retie the beads or threads to the person's:
- e. Wrist (preferably left)
  - f. Wrist (preferably right)
  - g. Ankle (preferably right)
  - h. I don't know
12. A female person from India belonging to the Hindu religion in the end stages of life would generally prefer the important healthcare decisions be made by:
- e. The person herself
  - f. The senior member of the person's family
  - g. Relatives of the person
  - h. I don't know
13. A person of a Hindu religion dies in the hospital, and the family are conducting the customary preparation but are not immediately available; what is the action the nurse should take?
- e. Wait for instructions from the Hindu priest
  - f. Perform essential tasks only (such as removing tubes and cleaning excretions)

- g. Do not touch the body
  - h. I don't know
14. A Hindu person in the last stages of life believes in particular religious' rituals to prepare for death. One of the rituals involves family providing:
- e. Holy water from river Tapi
  - f. Holy water from the river Ganges
  - g. Holy waters from the river Brahmaputra
  - h. I don't know
15. A dying person practising the Hindu religion believes that after they die, there is
- e. Rebirth of the soul
  - f. Rebirth of the body
  - g. Rebirth of soul in the same body
  - h. I don't know
16. The Hindu person believes in the cycle of:
- e. Life, death, and reincarnation
  - f. Birth, life and death
  - g. Reincarnation, life and death
  - h. I don't know

## **Islam**

17. A dying person who is identified as Muslim by the family believes:
- e. He/she will go to Mecca upon death
  - f. He/she will meet Prophet Mohammed right after his/her death
  - g. He/she goes to heaven only if he/she has been good
  - h. I don't know
18. Death is imminent for a female person who is Muslim. The family visiting the person would appreciate the nurses to do the following:
- e. Turn the person on their back with her feet in the north-easterly direction
  - f. Call the Imam to come to the bedside
  - g. Call the priest to come to the bedside
  - h. I don't know
19. A Muslim person in the last stages of life receives Islamic death rites, and one of these rites includes:
- e. Assisting the person in reciting a declaration of faith
  - f. Assisting the person with ablutions
  - g. Assisting the person in receiving the sacrament of the dying
  - h. I don't know
20. A Muslim person whose death is imminent wishes to be turned towards facing Mecca. In Ireland, it is turning towards:
- e. Southeast
  - f. Northeast
  - g. Southwest
  - h. I don't know
21. Regarding cleaning and touching of the dead body, the family of a person who is a Muslim would like the nurses to:
- e. Undertake the normal washing of the dead body
  - f. Not to undertake the normal washing of the dead body

- g. Undertake the normal dressing of the dead body
- h. I don't know

22. A female Muslim person dies in the hospital. The family of the person who died would appreciate the nurses providing essential care to be of:

- e. The same gender as the person who died
- f. A different gender to the person who died
- g. Gender does not matter
- h. I don't know

23. Finally, please list three sources from which you, as a student nurse, could get information related to care around death?

## Appendix L: KQ and mCAS Normality of the Scales

### KQ and mCAS: Normality of the Scales

A test of normality was conducted on the knowledge of death rituals questionnaire (KQ) and on the mCAS comprised of four subscales (general education and experience, general awareness and attitude, nursing classes and clinical instruction, and clinical practise). The normality of the distributions of scores of the two scales was assessed on the nursing students by obtaining skewness and kurtosis values and by checking the Kolmogorov Smirnov statistic test of significance. A non-significant value result (Sig. value of more than 0.05) indicated normality.

Table L-1 illustrated a test of normality of the knowledge scale and the cultural awareness scale (general education experience, general awareness and attitude, nursing classes and clinical instruction, and clinical practice) – illustrating the mean, skewness and kurtosis.

**Table L- 1**

*Test of Normality of Knowledge and mCAS*

Descriptors			Statistic	Std. Error
Knowledge	Mean		6.15	0.187
	95% Confidence Interval for Mean	Lower Bound	5.78	
		Upper Bound	6.51	
	Skewness		0.618	0.12
	Kurtosis		-0.105	0.24
General Experience	Mean		4.7653	0.05078
	95% Confidence Interval for Mean	Lower Bound	4.6655	
		Upper Bound	4.8651	
	Skewness		-0.316	0.12
	Kurtosis		0.047	0.24
General Awareness/Attitude	Mean		4.7	0.05372
	95% Confidence Interval for Mean	Lower Bound	4.5944	
		Upper Bound	4.8056	
	Skewness		-0.49	0.12
	Kurtosis		0.04	0.24
Nursing Classes and Clinical Instruction	Mean		5.1654	0.04285
	95% Confidence Interval for Mean	Lower Bound	5.0811	
		Upper Bound	5.2496	
	Skewness		-0.609	0.12
	Kurtosis		0.945	0.24
Clinical Practice	Mean		5.8582	0.0352
	95% Confidence Interval for Mean	Lower Bound	5.789	
		Upper Bound	5.9273	
	Skewness		-0.636	0.12
	Kurtosis		0.198	0.24

Table L-2 illustrated the test of normality of the knowledge scale and the modified cultural awareness scale by calculating the Kolmogorov-Smirnov statistic. The number of students responding was 412, rather than 414, because two students were found to have some missing data.

**Table L- 2**

*Test of Normality: Calculating the Kolmogorov-Smirnov Statistic*

	<b>Kolmogorov-Smirnov</b>		
	Statistic	df	Sig.
<b>Knowledge</b>	.110	412	<.001
<b>General Experience</b>	.049	412	.020
<b>General</b>	.096	412	<.001
<b>Awareness/Attitudes</b>			
<b>Nursing Classes and</b>	.073	412	<.001
<b>Clinical Instruction</b>			
<b>Clinical Practice</b>	.083	412	<.001

### **Knowledge Questionnaire (KQ) Scale**

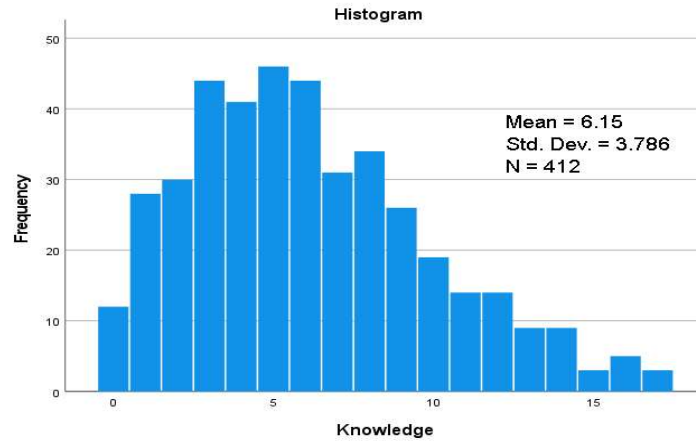
With regard to undergraduate nursing students' knowledge of religious death rituals for Christianity, Islam and Hinduism, using data in Tables L-1 and L-2, it was observed that the mean scores of nursing students in relation to total knowledge was 6.15 with a variance of 14.334. The skewness was 0.618 and kurtosis was -0.105. The Kolmogorov-Smirnov test of normality showed sig < 0.001. It showed that the frequency distribution curve was not normal. It was positively skewed and platykurtic. Hence it was inferred that the distribution was not normal.

The histogram (Figure L-1), Q-Q plot (Figure L-2) and box plot (Figure L-3) were also examined, which indicated that the distribution was not normal. Figure L-1, the histogram for the test of normality with regard to the knowledge scale, showed the Mean=6.15 and the Standard Deviation=3.766 where n=412. The number of students responding was 412 because two students were found to have some missing data.



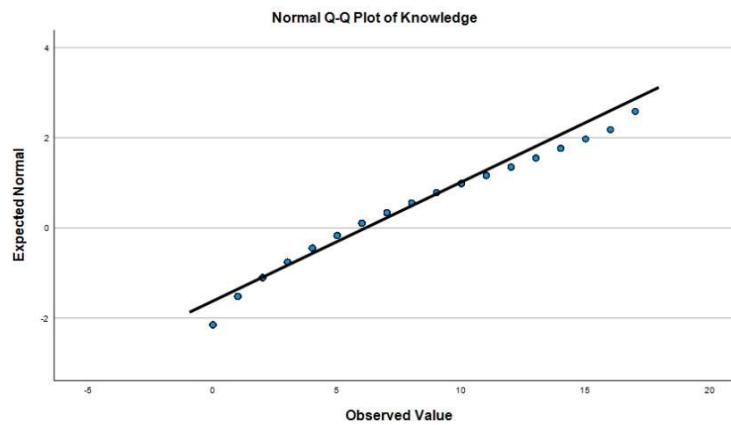
**Figure L- 1**

*Histogram: Test of Normality, Knowledge Scale*



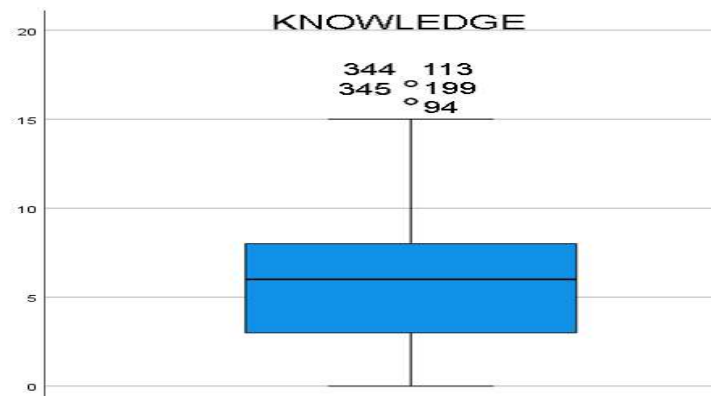
**Figure L- 2**

*Q-Q Plot of Knowledge Scale*



**Figure L- 3**

*Box Plot: Knowledge Scale*

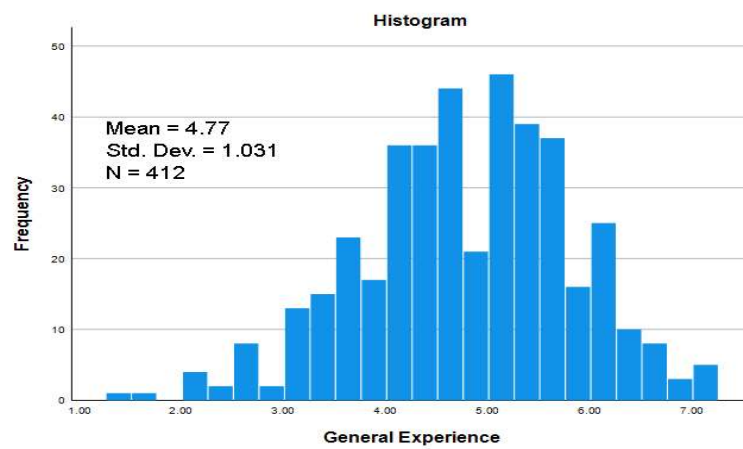


### mCAS Subscale: General Education and Experience

As shown in Table L-1, it was observed that the mean score of nursing students in relation to general experience was 4.76 with a variance of 1.062. The skewness was -.316 and kurtosis 0.047. The Kolmogorov-Smirnov test of normality (Table L-2) showed a Sig 0.020. The frequency distribution curve was not normal, it was negatively skewed and platykurtic. Hence, it was inferred that the distribution was not normal. The histogram (Figure L-4), Q-Q plot (Figure L-5), and box plot (Figure L-6) were also examined. Figure L-4 illustrated the Mean=4.77, Standard Deviation=1.031 for n=412. The number of students responding was 412 (instead of 414) because two students were found to have some missing data.

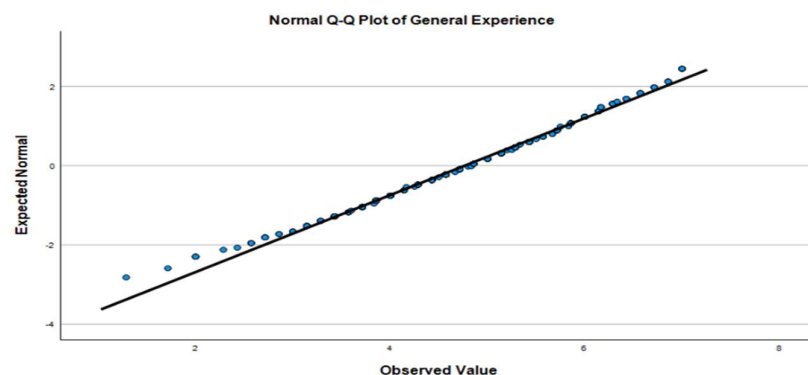
**Figure L- 4**

*Histogram: General Experience at Your School*



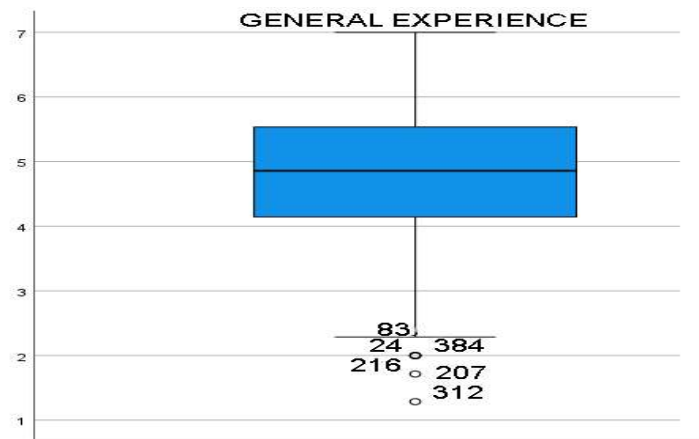
**Figure L- 5**

*Q-Q Plot: General Experiences at Your School*



**Figure L- 6**

*Box Plot: General Experience at Your School*

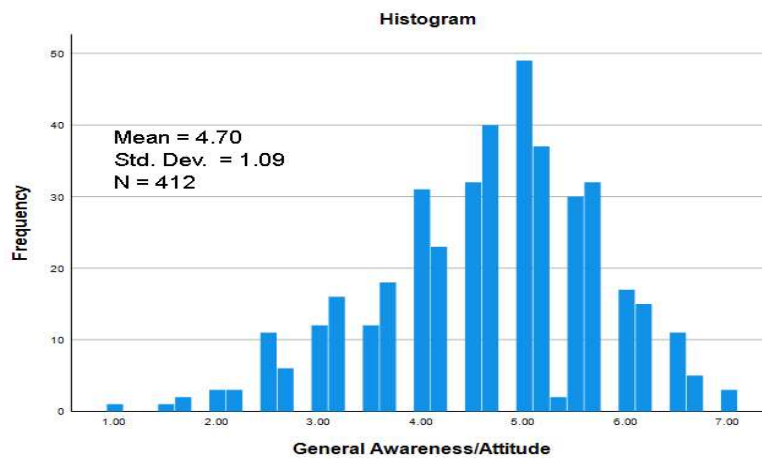


#### **mCAS Subscale: General Awareness and Attitude**

It was observed (Table L-1) that the mean score of nursing students in relation to the general awareness and attitude was 4.70 with the variance being 1.189 (Table L-2). The skewness was -0.490 and kurtosis was 0.040. The Kolmogorov-Smirnov test of normality (Table L-1) showed sig <0.001 (Table L-2). It indicated that the frequency distribution curve was not normal. It was negatively skewed and platykurtic.

**Figure L- 7**

*Histogram: General Awareness and Attitude*

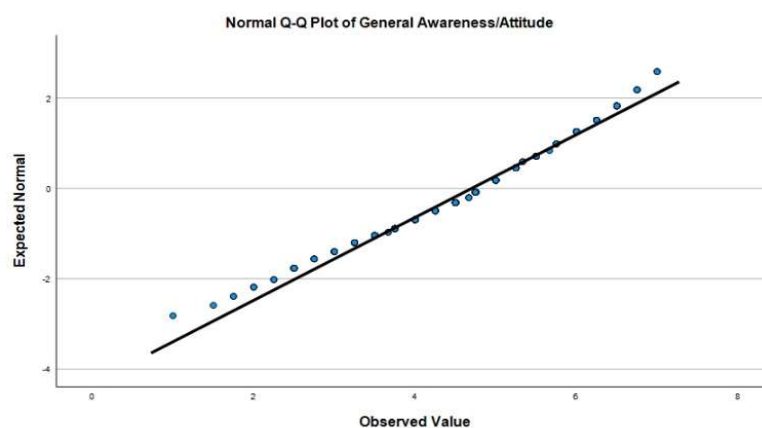


Hence it was inferred that the distribution was not normal. The histogram (Figure L-7), Q-Q plot (Figure L-8), and box plot (Figure L-9) were also examined. Figure L-7 illustrated

the general awareness and attitude on a histogram. The Mean=4.70, Standard Deviation=1.09 for n=412. The number of students responding was 412, rather than 414, because two students were found to have some missing data.

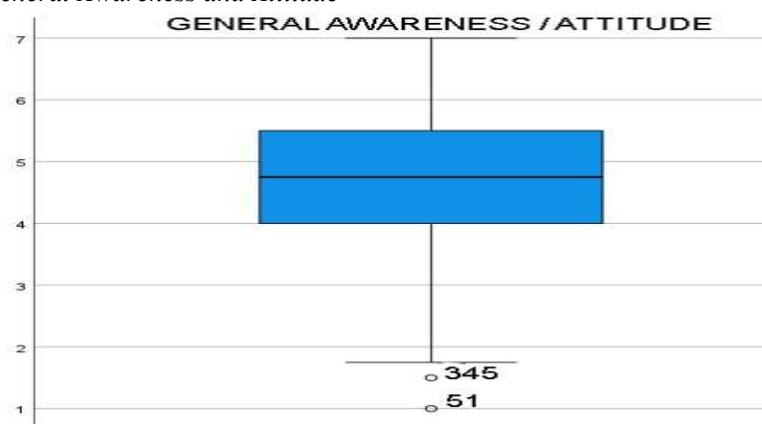
**Figure L- 8**

*Q-Q Plot: General Awareness and Attitude*



**Figure L- 9**

*Box Plot: General Awareness and Attitude*

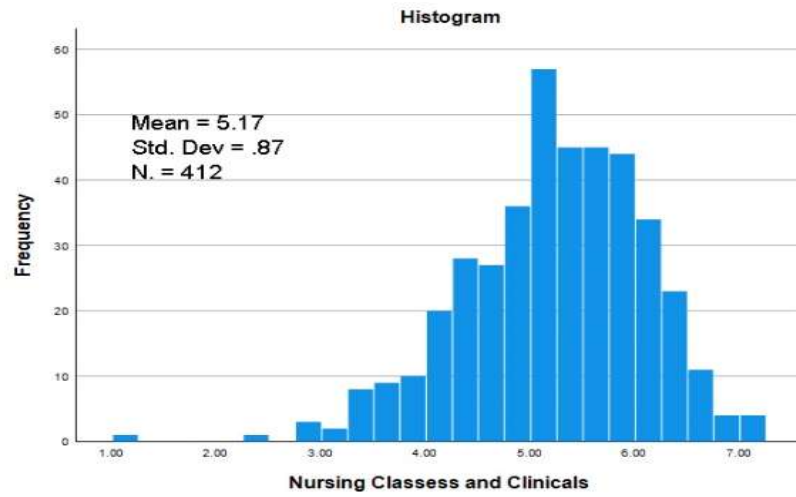


### **mCAS Subscale: Nursing Classes and Clinical Instruction**

From the Table L-1 it was observed that the mean score of nursing students in relation to nursing classes and clinical instruction was 5.16 with variance being 0.756. The skewness was -0.609 and kurtosis was 0.945. The Kolmogorov-Smirnov test of normality showed sig <0.001 (Table L-1), indicating the frequency distribution curve was not normal. It was negatively skewed and platykurtic. Hence it was inferred that the distribution was not normal. A histogram (Figure L-10), Q-Q plot (Figure L-11) and box plot (Figure L-12) were examined.

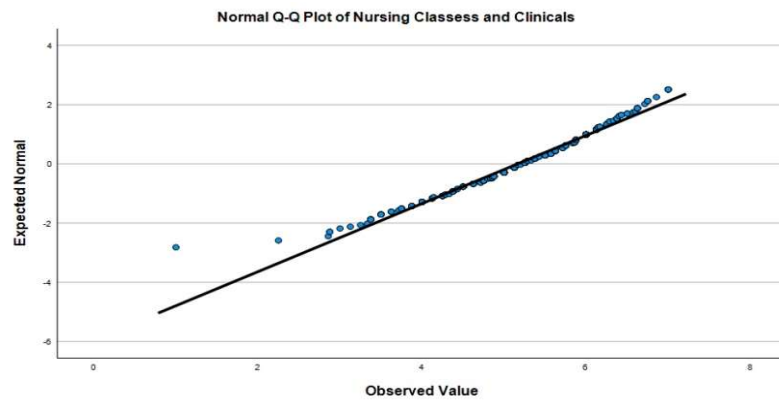
**Figure L- 10**

*Histogram: Nursing Classes and Clinical Instruction*



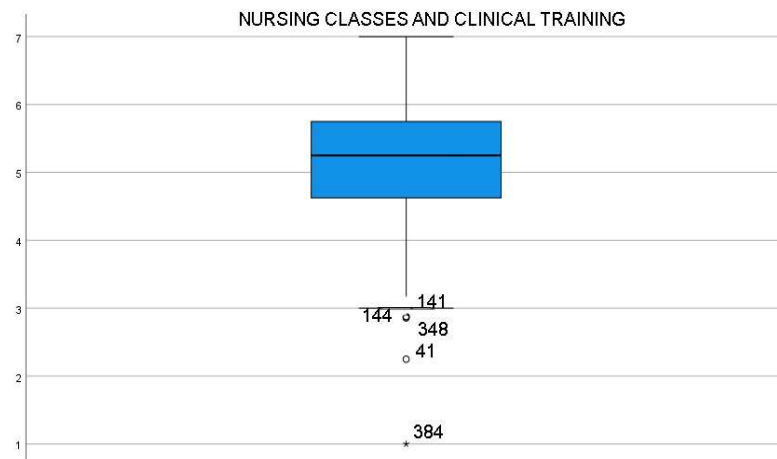
**Figure L- 11**

*Q-Q Plot: Nursing Classes and Clinical Instruction*



**Figure L- 12**

*Box Plot: Nursing Classes and Clinical Instruction*

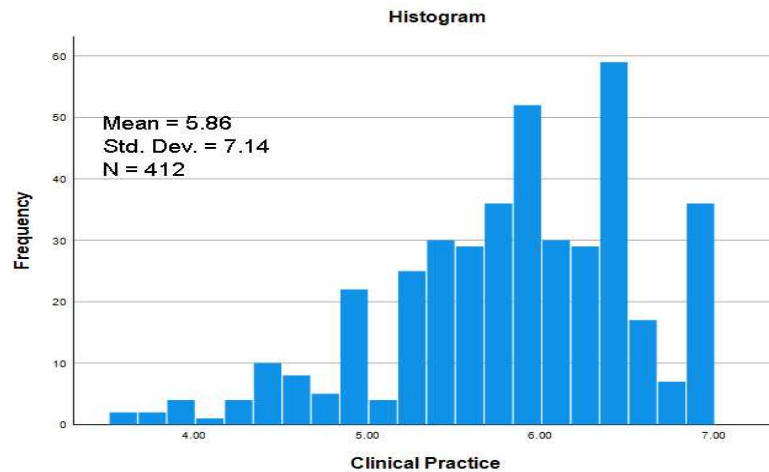


### mCAS Subscale: Clinical Practice

It was observed from Table L-1 that the mean score of nursing students in relation to clinical practice was 5.85 with variance being 0.510. The skewness was -0.636 and kurtosis was 0.198. The Kolmogorov-Smirnov test of normality (Table L-2) showed sig <0.001. It indicated that the frequency distribution curve was not normal. It was negatively left skewed and platykurtic. Hence it was inferred that the distribution was not normal. The histogram (Figure L-13), Q-Q plot (Figure L-14) and box plot (Figure L-15) were also examined.

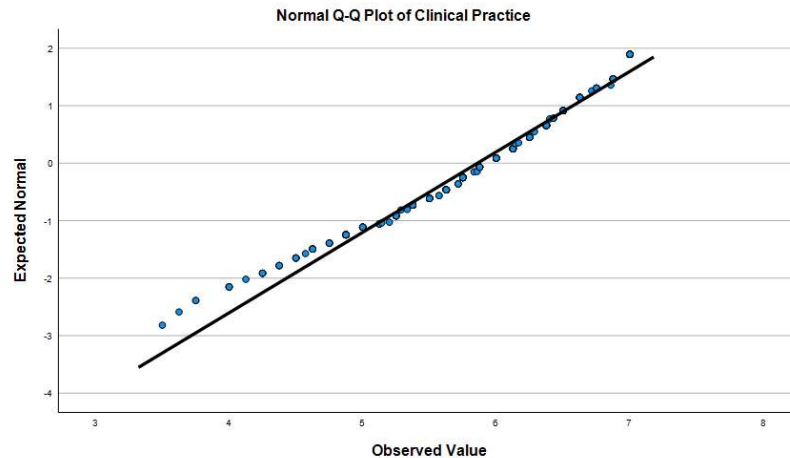
**Figure L- 13**

*Histogram: Clinical Practice*



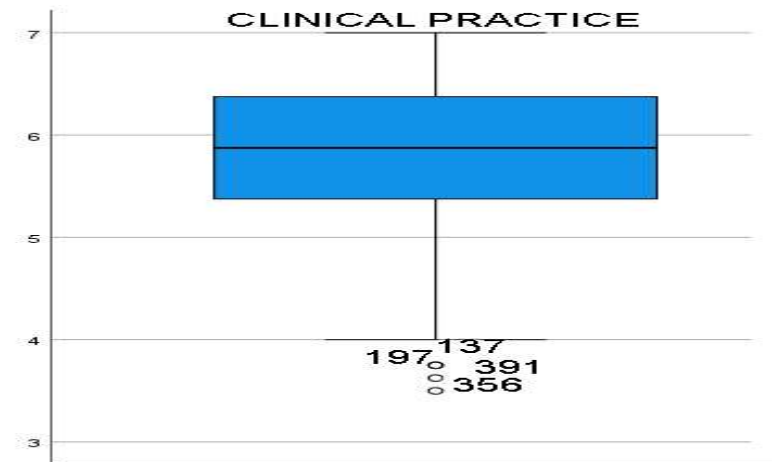
**Figure L- 14**

*Histogram: Q-Q Plot of Clinical Practice*



**Figure L- 15**

*Box Plot: Clinical Practice*



## Appendix M: RQ4 Hypotheses and Correlations

**Hypotheses ( $H_0$ ) 1(a-d).** This exercise checked the correlation between the KQ and mCAS as related to the four subscales: general experience, general awareness and attitude, nursing classes and clinical instruction, and clinical practice.

- $H_0$  (1a): There is no statistically significant correlation between knowledge and general experience.
- $H_0$  (1b): There is no statistically significant correlation between knowledge and general awareness and attitude.
- $H_0$  (1c): There is no statistically significant correlation between knowledge and nursing classes and clinical instruction.
- $H_0$  (1d): There is no statistically significant correlation between knowledge and clinical practice.

A Pearson correlation coefficient was computed to assess the relationship between knowledge and cultural awareness on the four subscales. From Table 16, it was observed that there existed no statistically significant correlation between knowledge towards general experience, general awareness and attitude, and nursing classes and clinical instruction. Hence the hypothesis  $H_0$  1(a),  $H_0$  1(b),  $H_0$  1(c) were accepted. However, there was statistically significant correlation between knowledge and clinical practice. The coefficient of correlation values between knowledge and clinical practice was:  $r(413) = .10$ ,  $p = .039$ , two-tailed, at a 95 % confidence interval with a significance value of less than 0.05. Hence, the null hypothesis  $H_0$  (1d) there was no significant correlation between knowledge and clinical practice was rejected. So, it was concluded that there was a statistically significant correlation between knowledge and clinical practice.

**Hypothesis 2(a-d):** This exercise checked the correlation between the subscale general experience and knowledge, general awareness/attitude, nursing classes and clinical instruction, and clinical practice.



- **H<sub>0</sub> (2a):** There is no statistically significant correlation between general experience and knowledge.
- **H<sub>0</sub> (2b):** There is no statistically significant correlation between general experience and general awareness and attitude.
- **H<sub>0</sub> (2c):** There is no statistically significant correlation between general experience and nursing classes and clinical instruction.
- **H<sub>0</sub> (2d):** There is no statistically significant correlation between general experience and clinical practice.

A Pearson correlation coefficient was computed to assess the relationship between general experience to the other three mCAS subscales (general awareness/attitude, nursing classes and clinical instruction, and clinical practice) and knowledge. From Table 16, it was concluded that there was no statistically significant correlation general experience and knowledge and general experience and general awareness/attitude. Hence the hypothesis **H<sub>0</sub> 2(a)** and **H<sub>0</sub> 2(b)** was accepted. However, there was a statistically significant correlation between general experience and nursing classes and clinical instruction value,  $r(412) = 0.55$ ,  $p < .001$  and a statistical correlation between general experience and clinical practice,  $r(412) = 0.217$ ,  $p < .001$ , two-tailed at 95% confidence interval with significance value of  $p < 0.001$ , indicating a weak correlation. Hence, the hypotheses **H<sub>0</sub> 2(c)** and **H<sub>0</sub> 2(d)** were rejected. So, it was concluded that there was a statistically significant (strong) correlation between general experience and nursing classes and clinical instruction and statistically significant (weak) correlation between general experience and clinical practice.

**Hypothesis 3(a-d):** This exercise checked the correlation between the subscale general awareness and attitude to knowledge, general experience, nursing classes and clinical instruction, and clinical practice.

- **H<sub>0</sub> (3a):** There was no statistically significant correlation between general awareness/attitude and knowledge.

- **H<sub>0</sub> (3b):** There was no statistically significant correlation between general awareness/attitude and general experience.
- **H<sub>0</sub> (3c):** There was no statistically significant correlation between general awareness/attitude and nursing classes and clinical instruction.
- **H<sub>0</sub> (3d):** There was no statistically significant correlation between general awareness/attitude and clinical practice.

A Pearson correlation coefficient was computed to assess the relationship between mCAS subscale general awareness and attitude to other three mCAS subscales and knowledge. From Table 16, was concluded that there was no statistically significant correlation between general awareness and attitude towards knowledge, or to general experience or to nursing classes and clinical instruction. Hence, the hypothesis **H<sub>0</sub> (3a)**, **H<sub>0</sub> (3b)**, **H<sub>0</sub> (3c)** was accepted. However, there was a statistically significant correlation between general awareness/attitude and clinical practice with negative correlation coefficient value of  $r(413) = -0.198$ ,  $p < .001$  at 95% confidence interval with significant value  $p < 0.001$ . Hence the null hypothesis **H<sub>0</sub> (3d)** was rejected. So, it was concluded that there was a statistically significant correlation between general awareness/attitude and clinical practice.

**Hypothesis 4 (a-d).** This exercise checked the correlation between the subscale nursing classes and clinical instruction to knowledge, general experience, general awareness/attitude and clinical practice.

- **H<sub>0</sub> (4a):** There was no statistically significant correlation between nursing classes and clinical instruction and knowledge.
- **H<sub>0</sub> (4b):** There was no statistically significant correlation between nursing classes and clinical instruction and general experience.
- **H<sub>0</sub> (4c):** There was no statistically significant correlation between nursing classes and clinical instruction and general awareness/attitude.
- **H<sub>0</sub> (4d):** There was no statistically significant correlation between nursing classes and clinical instruction and clinical practice.

A Pearson correlation coefficient was computed to assess the relationship between subscale nursing classes and clinical instruction to other three subscales and knowledge. From the table, it was concluded that there was no statistically significant correlation between nursing classes and clinical instruction towards knowledge or general awareness and attitude. Hence the hypotheses  $H_0$  4(a) and  $H_0$  (c) were accepted. However, there was a statistically significant correlation between nursing classes and clinical instruction towards general experience and clinical practice with the coefficient values  $r(412)=0.552, p=.001$  and  $r(413)=0.234, p<.001$ , respectively at a 95% confidence interval with significant value of  $p < 0.001$ . Hence the hypothesis  $H_0$  4(b) and  $H_0$  (d) were rejected. So, it was concluded that there existed a strong statistically significant correlation between nursing classes and clinical instruction and general experience and a statistically significant correlation between nursing classes and clinical instruction and clinical practice.

**Hypothesis 5 (a-d).** This exercise checked the correlation between the subscale clinical practice to knowledge, general experience, general awareness/attitude and nursing classes and clinical instruction.

- $H_0$  (5a): There is no statistically significant correlation between clinical practice and knowledge.
- $H_0$  (5b): There is no statistically significant correlation between clinical practice and general experience.
- $H_0$  (5c): There is no statistically significant correlation between clinical practice and general awareness/ attitude.
- $H_0$  (5d): There is no statistically significant correlation between clinical practice and nursing classes and clinical instruction.

A Pearson correlation coefficient was computed to assess the correlation between the mCAS subscale clinical practice to other three subscales and knowledge. From Table 16 it was concluded that there was a statistically significant correlation between clinical practice towards knowledge,  $r(413) = .10, p=.039$ , general experience  $r(412) = .217, p<.001$ , general

awareness/attitude  $r(413) = -.198$  (negative correlation),  $p < .001$  and nursing classes and clinical instruction  $r(413) = .234$ ,  $p < .001$  at a 95% confidence interval with a statistically significant value of  $p < 0.005$  and  $p < 0.001$ . Although there was a significant correlation, the level of correlation was weak. Hence, the null hypothesis  $H_0 5(a)$ ,  $H_0 5(b)$ ,  $H_0 5(c)$ ,  $H_0 5(d)$  were rejected. So, it was concluded that there was a statistically significant correlation between clinical practice towards knowledge, general experience, general awareness/attitude, and nursing classes and clinical instruction.

## Appendix N: RQ5 Statistics

**Descriptive Statistics: Age.** The total mean scores of nursing student knowledge of death rituals according to their age groups was ( $M=6.12$ ;  $SD=3.79$ ), was shown in Table N-1.

**Table N- 1**

*Age, Knowledge, and Cultural Awareness: Descriptive Statistics*

<b>Age: Descriptive Statistics</b>									
		N	Mean	Standard Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Knowledge	<18	50	5.14	3.597	.509	4.12	6.16	0	14
	19-28	295	6.16	3.808	.222	5.73	6.60	0	17
	29-38	45	6.87	4.110	.613	5.63	8.10	0	16
	39-48	24	6.21	3.230	.659	4.84	7.57	1	13
	<b>Total</b>	<b>414</b>	<b>6.12</b>	<b>3.797</b>	<b>.187</b>	<b>5.75</b>	<b>6.49</b>	<b>0</b>	<b>17</b>
General Experience	<18	50	4.8657	.98823	.13976	4.5849	5.1466	2.00	7.00
	19-28	294	4.6751	1.04088	.06071	4.5556	4.7946	1.29	7.00
	29-38	45	5.0532	1.01692	.15159	4.7477	5.3587	2.57	7.00
	39-48	24	5.0268	.99331	.20276	4.6073	5.4462	2.00	6.57
	<b>Total</b>	<b>413</b>	<b>4.7598</b>	<b>1.03547</b>	<b>.05095</b>	<b>4.6597</b>	<b>4.8600</b>	<b>1.29</b>	<b>7.00</b>
General Awareness/ Attitude	<18	50	4.5400	.88548	.12523	4.2883	4.7917	3.00	6.25
	19-28	295	4.7362	1.07232	.06243	4.6133	4.8590	1.50	7.00
	29-38	45	4.6148	1.36078	.20285	4.2060	5.0236	1.00	6.75
	39-48	24	4.6493	1.18030	.24093	4.1509	5.1477	1.75	6.25
	<b>Total</b>	<b>414</b>	<b>4.6942</b>	<b>1.09150</b>	<b>.05364</b>	<b>4.5888</b>	<b>4.7997</b>	<b>1.00</b>	<b>7.00</b>
Nursing Classes and Clinical Instruction	<18	50	4.9494	.98744	.13964	4.6688	5.2300	1.00	6.38
	19-28	294	5.1756	.85425	.04982	5.0775	5.2736	2.86	7.00
	29-38	45	5.2653	.88763	.13232	4.9987	5.5320	2.25	6.86
	39-48	24	5.2543	.75224	.15355	4.9367	5.5720	3.38	6.60
	<b>Total</b>	<b>413</b>	<b>5.1626</b>	<b>.87060</b>	<b>.04284</b>	<b>5.0783</b>	<b>5.2468</b>	<b>1.00</b>	<b>7.00</b>
Clinical Practice	<18	50	5.7168	.81236	.11489	5.4859	5.9477	3.63	7.00
	19-28	294	5.8703	.69985	.04082	5.7900	5.9506	3.50	7.00
	29-38	45	5.9970	.68034	.10142	5.7926	6.2014	4.25	7.00
	39-48	24	5.7497	.70300	.14350	5.4528	6.0465	4.25	7.00
	<b>Total</b>	<b>413</b>	<b>5.8585</b>	<b>.71355</b>	<b>.03511</b>	<b>5.7895</b>	<b>5.9275</b>	<b>3.50</b>	<b>7.00</b>

Students in the 29-38-year-old age range scored a higher mean ( $M=6.87$ ;  $SD=4.11$ ); followed by the 39-48 age group with mean ( $M=6.21$ ;  $SD=3.23$ ); then ages 19-28 with mean ( $M=6.16$ ;  $SD=3.80$ ); and last, those who were under age 18 with mean ( $M=5.14$ ;  $SD=3.59$ ).

This indicated that the knowledge of nursing students between age 29-28 was higher as compared to other age groups.

Similarly, on the modified cultural awareness scale, students within the same age group ranked highest on the general experience subscale ( $M=5.05$ ;  $SD=1.01$ ) and on the nursing classes and clinical instruction subscale ( $M=5.26$ ;  $SD=0.88$ ). However, the age group (19-28) ranked highest in their mean scores in general awareness/attitude ( $4.73$ ;  $SD=1.07$ ) and in clinical practice ( $5.87$ ;  $SD=0.699$ ).

**Inferential Statistics.** This exercise checked the relationship between nursing student age groups to knowledge and cultural awareness. The hypotheses were:

- $H_0(1a)$ : There is no statistically significant difference between nursing students' age groups and knowledge.
- $H_0(1b)$ : There is no statistically significant difference between nursing students' age groups and cultural awareness.

**Analysis of Variance: Age, Knowledge and Cultural Awareness.** A one-way analysis of variance was conducted (Table N-2) to explore the effect of the age of nursing students on knowledge and cultural awareness as they pertained to religious death rituals. Findings were reviewed as discussed herein. The number of students responding varied between 412 and 413, because two students were found to have some missing data.

**Table N- 2***Age, Knowledge and Cultural Awareness: Analysis of Variance (ANOVA)*

<b>ANOVA</b>						
		Sum of Squares	df	Mean Square	F	Sig.
<b>Knowledge</b>	Between Groups	73.832	3	24.611	1.716	.163
	Within Groups	5881.368	410	14.345		
	<b>Total</b>	<b>5955.200</b>	<b>413</b>			
<b>General Experience</b>	Between Groups	8.254	3	2.751	2.596	.052
	Within Groups	433.492	409	1.060		
	<b>Total</b>	<b>441.746</b>	<b>412</b>			
<b>General Awareness/Attitude</b>	Between Groups	2.040	3	.680	.569	.636
	Within Groups	489.999	410	1.195		
	<b>Total</b>	<b>492.039</b>	<b>413</b>			
<b>Nursing Classes and Clinical Instruction</b>	Between Groups	2.999	3	1.000	1.322	.267
	Within Groups	309.274	409	.756		
	<b>Total</b>	<b>312.273</b>	<b>412</b>			
<b>Clinical Practice</b>	Between Groups	2.192	3	.731	1.440	.231
	Within Groups	207.577	409	.508		
	<b>Total</b>	<b>209.770</b>	<b>412</b>			

**Age and Knowledge Subscales.** As shown in Table N-2, a one-way analysis of variance was conducted to explore the effect of age of nursing students on knowledge of religious death rituals (Table N-2). In this case we had four subgroups of ages. To test the hypothesis that there was no significant variance between nursing student age and knowledge. A one-way ANOVA indicated that there was no statistically significant difference in the knowledge of nursing students between different age groups:  $f(3,410) = 1.716$ ,  $p = .163$  (Table N-2). The Bonferroni post hoc analysis was also performed to check for multiple comparisons.

Hence, the null hypothesis, there was no significant variance between nursing students' age group and knowledge was accepted. This confirmed that there was no significant difference between the different age groups and knowledge.

**Age and Cultural Awareness Subscales.** As shown in Table N-2, a one-way analysis of variance was conducted to explore the effect of age of nursing students on cultural awareness and four sub-scales (general educational experience subscale, general awareness/attitude subscale, nursing classes/ clinical subscale and clinical practice subscale). A one-way ANOVA indicated that there was no statistically significant difference in the general educational experience and age groups:  $f(3,409) = 2.596$ ,  $p = 0.052$  (Table N-2). No statistical difference in general awareness/attitude subscale and age:  $f(3, 410) = 0.569$ ,  $p = 0.636$ . There was no significant difference in nursing classes and clinical instruction and age:  $f(3, 409) = 1.322$ ,  $p = 0.267$ . There was no statistical difference in clinical practice and age:  $f(3,409) = 1.440$ ,  $p = 0.231$ . Hence, the null hypothesis was accepted. So, it was concluded that there was no statistically significant variance between nursing students' age groups and cultural awareness.

**Gender.** Table N-3 provided descriptive statistics, comparing nursing student knowledge and cultural awareness to gender (male and female). Table N-3 depicted the mean scores on knowledge and cultural awareness of nursing students based on gender (male or female). The mean knowledge scores of males and females were 7.26 and 6.00 respectively. The mean scores of the cultural awareness subscale indicated that males had a higher mean related to general experience (4.79/4.75), general awareness and attitude (4.72/4.68), and with regards to nursing classes and clinical instruction (5.19/5.16). However, in clinical practice, female nursing students had higher mean (5.87) than compared to males (5.64).



**Table N- 3***Gender, Knowledge and Cultural Awareness: Mean Scores*

<b>Gender: Group Statistics</b>					
	<b>Q2 What is your gender?</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
<b>Knowledge</b>	Male	34	7.26	4.647	.797
	Female	378	6.00	3.703	.190
<b>General Experience</b>	Male	34	4.7950	1.20013	.20582
	Female	377	4.7569	1.02339	.05271
<b>General Awareness/Attitudes</b>	Male	34	4.7230	1.10663	.18979
	Female	378	4.6887	1.08992	.05606
<b>Nursing lecturers and classes</b>	Male	34	5.1931	.90820	.15575
	Female	377	5.1606	.87037	.04483
<b>Clinical Practice</b>	Male	34	5.6401	.79658	.13661
	Female	377	5.8758	.70461	.03629

**Inferential Statistics.** This exercise checked the relationship between nursing student gender groups to knowledge and cultural awareness as shown in Table 20. Hypotheses were:

- **H<sub>0</sub> (2a):** There is no statistically significant difference between male and female nursing students in their knowledge.
- **H<sub>0</sub> (2b):** There is no statistically significant difference between male and female nursing students in their cultural awareness.

**Independent Sample T-tests Related to Gender, Knowledge and Cultural Awareness.** Table N-4 showed the results of independent sample t-tests conducted to compare the knowledge and cultural awareness of nursing students by gender. Findings are discussed herein.

**Table N- 4***Gender, Knowledge, and Cultural Awareness: Independent Sample T-tests*

		T-tests for Equality of Means									
		Levene's Test for Equality of Variances		Significance						95% Confidence Interval of the Difference	
		F	Sig.	t	df	One Sided p	Two Sided p	Mean Difference	Std. Error Difference	Lower	Upper
<b>Knowledge</b>	Equal variances assumed	3.337	0.068	1.861	410	0.032	0.063	1.262	0.678	-0.071	2.595
	Equal variances not assumed			1.54	36.866	0.066	0.132	1.262	0.819	-0.398	2.923
<b>General Experience</b>	Equal variances assumed	3.056	0.081	0.205	409	0.419	0.838	0.03807	0.18601	-0.32758	0.40372
	Equal variances not assumed			0.179	37.456	0.429	0.859	0.03807	0.21246	-0.39224	0.46839
<b>General Awareness and Attitude</b>	Equal variances assumed	0.072	0.788	0.176	410	0.43	0.861	0.03433	0.19539	-0.34976	0.41841
	Equal variances not assumed			0.173	38.984	0.432	0.863	0.03433	0.19789	-0.36595	0.43461
<b>Nursing classes and Clinical Instruction</b>	Equal variances assumed	0.023	0.88	0.208	409	0.418	0.835	0.03253	0.15641	-0.27494	0.34
	Equal variances not assumed			0.201	38.67	0.421	0.842	0.03253	0.16208	-0.29539	0.36045
<b>Clinical Practice</b>	Equal variances assumed	0.302	0.583	-1.848	409	0.033	0.065	-0.23573	0.12758	-0.48652	0.01506
	Equal variances not assumed			-1.668	37.805	0.052	0.104	-0.23573	0.14135	-0.52193	0.05047

**Gender and Knowledge.** As shown in Table N-4, independent sample t-tests were conducted to compare the knowledge of nursing students who were male and female. To test the hypothesis that there was no significant difference between male and female nursing students in their knowledge, homogeneity of variance was checked using Levene's test, which had not been violated (sig=0.68). No statistically significant difference was indicated between knowledge and gender (male and female nursing students):  $t(410) = 1.86$ ,  $p = 0.063$ , two-tailed. Therefore, the null hypothesis, there was no significant difference between male and female

nursing students in their knowledge was accepted. This signified that there was no statistical significance between male and female nursing students in their knowledge.

**Gender and Cultural Awareness.** As shown in Table N-4, independent sample t-tests were conducted to compare the cultural awareness of nursing students who are male and female. To test the hypothesis that there existed no statistically significant difference between male and female nursing students in their cultural awareness. Homogeneity of variance of general experience subscale was checked using Levene's test and had not been violated ( $\text{sig}=0.081$ ). No statistically significant difference was indicated between general experience and gender (male and female nursing students):  $t(409)=0.20, p=0.838$ , two-tailed.

- No statistically significant difference was indicated between general awareness/attitudes and gender ( $\text{sig}=0.788$ ):  $t(409)=0.176, p=0.861$ , two –tailed).
- No statistical difference was indicated between nursing classes and clinical instruction subscale and gender ( $\text{sig}=0.880$ ):  $t(409)=0.208, p=0.835$ , two-tailed.
- No statistical difference was indicated between clinical practice subscale and gender ( $\text{sig}=0.583$ ):  $t(409)=-1.84, p=0.065$ , two-tailed.

Hence, the null hypothesis is accepted. So, we can conclude that there was no significant difference between male and female nursing students in their cultural awareness.

**Birthplace.** Table N-5 presented descriptive statistics developed with regard to birth within Ireland or outside of Ireland. Table 22 depicted the mean scores related to the knowledge and cultural awareness of nursing students born in Ireland and outside Ireland. The mean knowledge scores of nursing students born in Ireland and outside Ireland were 6.10 and 6.21 respectively. The mean scores of the cultural awareness subscale indicated higher mean scores in the subscale nursing classes and clinical instruction, and in clinical practice among both the students who were born in Ireland and outside Ireland. The subscales general experience and general awareness/attitudes indicated a slightly higher mean among students born outside Ireland, whereas the nursing lectures (clinical instruction) and classes subscale and clinical

practice indicated higher mean among students born in Ireland (5.18, 5.86) than compared to students born outside Ireland (5.05, 5.818).

**Inferential Statistics.** This exercise checked the relationship between nursing student place of birth within or outside of Ireland to knowledge and cultural awareness, as shown in Table 22, and hypotheses were:

- **H<sub>0</sub> 3(a):** There is no statistically significant difference between nursing students born in Ireland and those born outside Ireland in their knowledge of religious death rituals.
- **H<sub>0</sub> 3(b):** There is no statistically significant difference between nursing students born in Ireland and those born outside Ireland in their cultural awareness.

**Table N- 5**

*Birth, Knowledge, Cultural Awareness: Mean Scores*

<b>Birth: Group Statistics</b>					
	Q3 Where were you born?	N	Mean	Standard Deviation	Std. Error Mean
<b>Knowledge</b>	In Ireland	344	6.10	3.849	.208
	Outside of Ireland	70	6.21	3.559	.425
<b>General Experience</b>	In Ireland	343	4.7504	1.04946	.05667
	Outside of Ireland	70	4.8062	.96981	.11591
<b>General Awareness/Attitudes</b>	In Ireland	344	4.6589	1.08907	.05872
	Outside of Ireland	70	4.8679	1.09461	.13083
<b>Nursing Classes and Clinical Instruction</b>	In Ireland	343	5.1854	.85206	.04601
	Outside of Ireland	70	5.0509	.95499	.11414
<b>Clinical Practice</b>	In Ireland	343	5.8667	.71249	.03847
	Outside of Ireland	70	5.8184	.72253	.08636

**Independent Sample T-tests Related to Birth, Knowledge and Cultural Awareness.** As shown in Table N-6, independent sample t-tests were conducted to compare the knowledge and cultural awareness of nursing students who were born in Ireland and those born outside Ireland. Findings are discussed herein.

**Table N- 6***Birth, Knowledge, and Cultural Awareness: Independent Sample T-tests*

Independent Sample T-tests											
		T-tests for Equality of Means									
		Levene's Test for Equality of Variances				Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One Sided p	Two Sided p	Mean Difference	Std. Error Difference	Lower	Upper
<b>Knowledge</b>	Equal variances assumed	0.224	0.636	-0.232	412	0.408	0.817	-0.115	0.498	-1.095	0.864
	Equal variances not assumed			-0.244	104.564	0.404	0.808	-0.115	0.473	-1.054	0.823
<b>General Experience</b>	Equal variances assumed	1.273	0.26	-0.41	411	0.341	0.682	-0.0558	0.13594	-0.32303	0.21143
	Equal variances not assumed			-0.432	104.713	0.333	0.666	-0.0558	0.12902	-0.31164	0.20004
<b>General Awareness /Attitude</b>	Equal variances assumed	0.324	0.57	-1.462	412	0.072	0.145	-0.20894	0.14292	-0.48989	0.07201
	Equal variances not assumed			-1.457	98.792	0.074	0.148	-0.20894	0.1434	-0.49349	0.07561
<b>Nursing Classes and Clinical Instruction</b>	Equal variances assumed	0.702	0.403	1.178	411	0.12	0.239	0.13449	0.11413	-0.08986	0.35883
	Equal variances not assumed			1.093	92.747	0.139	0.277	0.13449	0.12307	-0.10991	0.37888
<b>Clinical Practice</b>	Equal variances assumed	0.301	0.584	0.516	411	0.303	0.606	0.04834	0.09367	-0.13579	0.23246
	Equal variances not assumed			0.511	98.322	0.305	0.61	0.04834	0.09454	-0.13927	0.23594

**Knowledge.** As shown in Table N-6, independent sample t-tests were conducted to compare the knowledge of nursing students who were born in Ireland and those born outside Ireland (table). To test the null hypothesis, there was no statistical difference between nursing students born in Ireland and those born outside Ireland in their knowledge of religious death rituals. Homogeneity of variance was checked using Levene's test, (sig=0.636). The independent sample t-test was not significant at 0.05 level. No statistically significant difference was indicated between knowledge and birth of students-born in Ireland and born outside Ireland:  $t(412) = -0.232$ ,  $p=0.817$ , two-tailed. Therefore, the null hypothesis was accepted. So,

it was concluded that there was no statistical difference between nursing students born in Ireland and those born outside Ireland in their knowledge of religious death rituals.

**Cultural Awareness.** As shown in in Table N-6, independent sample t-tests were conducted to compare the cultural awareness of nursing students who are born in Ireland and those born outside Ireland (table). Homogeneity of variance of four subscales was checked using Levene's test. No statistically significant difference was indicated between subscale general experience and birth (nursing students born in Ireland and those born outside of Ireland): (sig=.260):  $t(411) = -.410$ ,  $p = .682$ , two-tailed.

- No statistically significant difference was indicated between subscale general awareness/attitudes and birth (sig=.570):  $t(412) = -1.462$ ,  $p = .145$ , two –tailed.
- No statistical difference was indicated between subscale nursing classes and clinical instruction and birth (sig=.403):  $t(411) = 1.178$ ,  $p = .239$ , two-tailed.
- No statistical difference was indicated between subscale clinical practice and gender (sig=.584):  $t(411) = .516$ ,  $p = .606$ , two-tailed.

Hence, the null hypothesis was accepted. So, it was concluded that there was no statistical difference between nursing students born in Ireland and those born outside Ireland in their cultural awareness.

**Descriptive Statistics: Raised in a Religious Faith.** Table N-7 depicted the mean scores on knowledge and cultural awareness of nursing students raised in religious and those not raised in religious faith. Although most students ( $n=357$ ) compared to ( $n=57$ ) said they were raised in religious faith, the mean knowledge scores of those who were not raised in religious faith were higher (6.42) than those who were raised in religious faith (6.07). The cultural awareness subscales in nursing classes and clinical instruction and clinical practice indicated higher mean scores among both the groups as compared to the subscales general experience and general awareness and attitudes. The mean scores of both groups were, however, very close.

**Table N- 7**

*Raised in a Religious Faith, Knowledge, and Cultural Awareness: Mean Scores*

<b>Raised in a Religious Faith: Group Statistics</b>					
	Q4: Were you brought up in a religious faith?	N	Mean	Standard Deviation	Standard Error Mean
<b>Knowledge</b>	No	57	6.42	4.170	.552
	Yes	357	6.07	3.738	.198
<b>General Experience</b>	No	57	4.7946	1.09126	.14454
	Yes	356	4.7542	1.02775	.05447
<b>General Awareness/Attitude</b>	No	57	4.5439	1.05033	.13912
	Yes	357	4.7183	1.09745	.05808
<b>Nursing Classes and Clinical Instruction</b>	No	57	5.1139	.91563	.12128
	Yes	356	5.1704	.86426	.04581
<b>Clinical Practice</b>	No	57	5.8536	.67310	.08915
	Yes	356	5.8593	.72071	.03820

**Inferential Statistics.** This exercise checked the relationship between nursing students raised in a religious faith and those not raised in a religious faith to their knowledge and cultural awareness on the four subscales (Table N-8). Hypotheses were:

- **H<sub>0</sub> 4(a):** There is no statistically significant difference between nursing students raised in religious faith and those not raised in religious faith in their knowledge of religious death rituals.
- **H<sub>0</sub> 4(b):** There is no statistically significant difference between nursing students raised in religious faith and those not raised in religious faith in their cultural awareness.

**Independent Sample T-tests: Raised in a Religious Faith, Knowledge, and Cultural Awareness.** As shown in Table N-8, independent sample t-tests were conducted to compare the knowledge and cultural awareness of nursing students who were raised in religious faith and those who were not raised in religious faith.

**Knowledge.** Table N-8 depicted the independent sample t-tests conducted to compare the knowledge of nursing students who were raised in religious faith and those who were not

raised in a religious faith to test the hypothesis there was no statistical difference between nursing students raised in religious faith and those not raised in religious faith in their knowledge of religious death rituals.

**Table N- 8**

*Raised in a Religious Faith, Knowledge, Cultural Awareness: Independent Sample T-tests*

<b>Independent Sample T-tests</b>											
T-tests for Equality of Means											
		Levene's Test for Equality of Means						Significance		95% Confidence Interval of the Difference	
		F	Sig.	t	df	One Sided p	Two Sided p	Mean Difference	Std. Error Difference	Lower	Upper
<b>Knowledge</b>	Equal variances assumed	1.002	0.317	0.648	412	0.259	0.518	0.351	0.542	-0.714	1.416
	Equal variances not assumed			0.598	71.108	0.276	0.552	0.351	0.587	-0.819	1.521
<b>General Experience</b>	Equal variances assumed	1.388	0.239	0.273	411	0.393	0.785	0.04037	0.14789	-0.25034	0.33109
	Equal variances not assumed			0.261	72.804	0.397	0.795	0.04037	0.15446	-0.26749	0.34823
<b>General Awareness/ Attitude</b>	Equal variances assumed	0.03	0.862	-1.12	412	0.132	0.263	-0.17439	0.15564	-0.48034	0.13155
	Equal variances not assumed			-1.16	76.857	0.125	0.251	-0.17439	0.15076	-0.4746	0.12581
<b>Nursing Classes and Clinical Instruction</b>	Equal variances assumed	0.655	0.419	-0.45	411	0.325	0.65	-0.05649	0.12432	-0.30087	0.1879
	Equal variances not assumed			-0.44	72.882	0.332	0.664	-0.05649	0.12964	-0.31487	0.20189
<b>Clinical Practice</b>	Equal variances assumed	0.466	0.495	-0.06	411	0.478	0.956	-0.00569	0.10192	-0.20604	0.19466
	Equal variances not assumed			-0.06	78.031	0.477	0.953	-0.00569	0.09699	-0.19878	0.18741

Homogeneity of variance was checked using Levene's test (sig=0.317), which was not significant at 0.05 level. No statistically significant difference was indicated between knowledge and those raised religious faith and those not raised in religious faith: t (412) = -0.648, p=0.518, two-tailed. Therefore, the null hypothesis was accepted. So, it was concluded



that, there existed no statistical difference between nursing students raised in religious faith and those not raised in religious faith in their knowledge of religious death rituals.

**Cultural Awareness.** As shown in Table N-8, independent sample t-tests were conducted to compare the cultural awareness of nursing students who were raised in religious faith and those not raised in religious faith to test the hypothesis: there was no statistical difference between nursing students raised in religious faith and those not raised in religious faith in their cultural awareness.

Homogeneity of variance of four subscales was checked using Levene's test, which was not significant at a 0.05 level.

- No statistically significant difference was indicated between subscales general experience and those raised religious faith and those not raised in a religious faith: (sig=.239):  $t(411) = .273$ ,  $p = .785$ , two –tailed).
- No statistically significant difference was indicated between subscales general awareness/attitudes and those raised religious faith and those not raised in a religious faith: (sig=.862):  $t(412) = -1.121$ ,  $p = .263$ , two –tailed).
- No statistically significant difference was indicated between subscales nursing classes and clinical instruction and those raised religious faith and those not raised in a religious faith: (sig=.419):  $t(411) = -.454$ ,  $p = .650$ , two –tailed).
- No statistically significant difference was indicated between subscales clinical practice and those raised religious faith and those not raised in a religious faith: (sig=.495):  $t(411) = -.056$ ,  $p = .956$ , two –tailed).

Hence, the hypothesis, there existed no statistical difference between nursing students who were raised in a religious faith and those not raised in a religious faith in their cultural awareness was accepted.

**Descriptive Statistics: Practising Religious Faith.** Table N-9 depicted the mean scores related to knowledge and cultural awareness of nursing students practising religious faith. The mean knowledge scores of those who were not practising religion were higher (6.23)

than compared to those who are not practising religious faith (5.94). The mean scores of cultural awareness subscales in nursing classes and clinical instruction and clinical practice indicated higher mean scores among both the groups who were practising religious faith and those who were not practising religious faith, than compared to the subscales general experience and general awareness and attitudes.

**Inferential Statistics.** This exercise checked the relationship between nursing students practising a religious faith to their knowledge and cultural awareness of religious death rituals. Hypotheses were:

- **H<sub>0</sub>(5a):** There is no statistically significant difference between nursing students practising religious faith and those not practising religious faith in their knowledge of religious death rituals
- **H<sub>0</sub>(5b):** There is no statistically significant difference between nursing students practising religious faith and those not practising religious faith in their cultural awareness

**Table N- 9**

*Practising Religious Faith, Knowledge, Cultural Awareness: Mean Scores*

<b>Practicing Religious Faith: Group Statistics</b>					
Q5: Would you consider yourself a practising religious person?		N	Mean	Standard Deviation	Standard Error Mean
<b>Knowledge</b>	No	258	6.23	3.831	.238
	Yes	156	5.94	3.746	.300
<b>General Experience</b>	No	257	4.7578	1.04251	.06503
	Yes	156	4.7631	1.02710	.08223
<b>General Awareness/Attitude</b>	No	258	4.5811	1.07069	.06666
	Yes	156	4.8814	1.10323	.08833
<b>Nursing Classes and Clinical instruction</b>	No	258	5.1917	.86956	.05414
	Yes	155	5.1140	.87297	.07012
<b>Clinical Practice</b>	No	258	5.9121	.65711	.04091
	Yes	155	5.7693	.79292	.06369

**Independent sample t-tests: Practising Religious Faith.** Table N-10 depicted the independent sample t-tests conducted to compare the knowledge and cultural awareness of

nursing students who were practising religious faith and those who were not practising religious faith.

**Table N- 10**

*Practising Religious Faith, Knowledge, Cultural Awareness: Independent Samples T-tests*

Independent Samples Test											
		t-test for Equality of Means									
		Levene's Test for Equality of Variances				Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One Sided p	Two Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Knowledge	Equal variances assumed	0.052	0.82	0.76	412	0.224	0.448	0.293	0.385	-0.465	1.05
	Equal variances not assumed			0.764	332.738	0.223	0.445	0.293	0.383	-0.461	1.047
General Experience	Equal variances assumed	0.369	0.544	-0.05	411	0.48	0.96	-0.0053	0.10522	-0.21214	0.20154
	Equal variances not assumed			-0.051	331.084	0.48	0.96	-0.0053	0.10484	-0.21154	0.20093
General Awareness/ Attitude	Equal variances assumed	0.001	0.977	-2.734	412	0.003	0.007	-0.30034	0.10984	-0.51626	-0.08441
	Equal variances not assumed			-2.714	319.35	0.004	0.007	-0.30034	0.11066	-0.51805	-0.08263
Nursing Classess and Clinical instruction	Equal variances assumed	1.099	0.295	0.878	411	0.19	0.38	0.07771	0.0885	-0.09626	0.25167
	Equal variances not assumed			0.877	323.448	0.191	0.381	0.07771	0.08859	-0.09657	0.25198
Clinical Practice	Equal variances assumed	5.233	0.023	1.976	411	0.024	0.049	0.1428	0.07226	0.00076	0.28485
	Equal variances not assumed			1.887	278.852	0.03	0.06	0.1428	0.0757	-0.0062	0.29181

**Knowledge.** As shown in Table N-10, independent sample t-tests were conducted to compare the knowledge of nursing students who are practising religious faith and those who are not practising religious faith to test the hypothesis, there was no statistical difference between nursing students practising religious faith and those not practising religious faith in their knowledge of religious death rituals. Homogeneity of variance was checked using

Levene's test ( $\text{sig}=0.820$ ), which was not significant at 0.05 level. No statistically significant difference was indicated between knowledge and those raised religious faith and those not raised in religious faith.  $T(412)=0.760$ ,  $p=0.448$ , two-tailed. Therefore, the null hypothesis was accepted. So, it was concluded that there was no statistical difference between nursing students practising religious faith and those not practising religious faith in their knowledge of religious death rituals.

**Cultural Awareness.** As shown in Table N-10, independent sample t-tests were conducted to compare the cultural awareness of nursing students who were practising a religious faith and those not practising religious faith to test the hypothesis there was no statistical difference between nursing students practising a religious faith and those not practising a religious faith in their cultural awareness. Homogeneity of variance of four subscales was checked using Levene's test which was not significant at 0.05 level. No statistically significant difference was indicated between subscales general experience and nursing students who were practising a religious faith and those who were not practising a religious faith: ( $\text{sig}=.544$ )  $t(411)=-.050$ ,  $p=.960$ , two tailed).

- No statistically significant difference was indicated between subscales general awareness/attitudes and nursing students who are practising a religious faith and those who are not practising religious faith: ( $\text{sig}=0.977$ )  $t(412)=-2.734$ ,  $p=0.007$ , two tailed).
- No statistically significant difference was indicated between subscales nursing classes and clinical instruction and nursing students who are practising a religious faith and those who are not practising religious faith: ( $\text{sig}=0.295$ )  $t(411)=0.878$ ,  $p=0.38$ , two tailed).
- No statistically significant difference was indicated between subscales clinical practice and nursing students who are practising a religious faith and those who are not practising religious faith: ( $\text{sig}=0.023$ )  $t(411)=1.976$ ,  $p=0.049$ , two tailed).

Hence, the null hypothesis is accepted. So, it was concluded that there was no statistical difference between nursing students who were practising a religious faith and those not practising religious faith in their cultural awareness.

**Descriptive Statistics: Year of Study.** Table N-11 depicted the mean scores for knowledge and cultural awareness of nursing students in their stated year of their nursing programme. The mean knowledge scores of those (305) who were in years (1-3) had a higher mean (6.15) than those (109) in years (4-5) mean (6.02). The mean scores on the cultural awareness subscales in clinical practice indicated higher mean scores (5.86) in years (1-3) and the mean (5.83) in years (4-5) as compared to the subscales nursing classes and clinical instruction, and clinical practise.

**Table N- 11**

*Year of Study, Knowledge, Cultural Awareness Mean Scores*

<b>Year of Study: Group Statistics</b>					
	Q6: Year of nursing programme	N	Mean	Std. Deviation	Std. Error Mean
<b>Knowledge</b>	1-3 years	305	6.15	3.892	.223
	4-5 years	109	6.02	3.533	.338
<b>General Experience</b>	1-3 years	305	4.8367	1.02141	.05849
	4-5 years	108	4.5425	1.04875	.10092
<b>General Awareness/Attitude</b>	1-3 years	305	4.6270	1.12165	.06423
	4-5 years	109	4.8823	.98296	.09415
<b>Nursing Classes and Clinical instruction</b>	1-3 years	304	5.1560	.87305	.05007
	4-5 years	109	5.1809	.86747	.08309
<b>Clinical Practice</b>	1-3 years	304	5.8676	.72189	.04140
	4-5 years	109	5.8331	.69236	.06632

**Inferential Statistics.** This exercise checked the relationship between nursing student year of study (years 1-3 and 4-5) to their knowledge and cultural awareness of religious death rituals. Hypotheses were:

- **H<sub>0</sub> 6(a):** There is no statistically significant difference between nursing students who were studying in years (1-3) and years (4-5) in their knowledge of religious death rituals.
- **H<sub>0</sub> 6(b):** There is no statistically significant difference between nursing students who were studying years (1-3) and years (4-5) in their cultural awareness.

**Independent sample t-tests: Practising Religious Faith.** Independent sample t-tests were conducted to compare the knowledge and cultural awareness of nursing students practising religious faith, as shown in Table N-12.

**Table N- 12**

*Year of Study, Knowledge, Cultural Awareness Independent Samples T-tests*

Independent Samples Test											
		t-test for Equality of Means									
		Levene's Test for Equality of						Significance		95% Confidence Interval of the Difference	
		F	Sig.	t	df	One Sided p	Two Sided p	Mean Difference	Std. Error Difference	Lower	Upper
<b>Knowledge</b>	Equal variances assumed	1.525	0.218	0.32	412	0.375	0.749	0.136	0.424	-0.698	0.97
	Equal variances not assumed			0.335	208.114	0.369	0.738	0.136	0.405	-0.663	0.935
<b>General Experience</b>	Equal variances assumed	0.388	0.534	2.554	411	0.005	0.011	0.2942	0.11518	0.06779	0.5206
	Equal variances not assumed			2.522	183.656	0.006	0.013	0.2942	0.11664	0.06407	0.52432
<b>General Awareness/ Attitude</b>	Equal variances assumed	1.785	0.182	-2.104	412	0.018	0.036	-0.25521	0.1213	-0.4937	-0.0168
	Equal variances not assumed			-2.239	215.334	0.013	0.026	-0.25521	0.11397	-0.4799	-0.0306
<b>Nursing Classess and Clinical instruction</b>	Equal variances assumed	0.55	0.459	-0.256	411	0.399	0.798	-0.02487	0.09731	-0.2162	0.16641
	Equal variances not assumed			-0.256	191.681	0.399	0.798	-0.02487	0.09701	-0.2162	0.16648
<b>Clinical Practice</b>	Equal variances assumed	0.71	0.4	0.432	411	0.333	0.666	0.03448	0.07974	-0.1223	0.19123
	Equal variances not assumed			0.441	197.888	0.33	0.66	0.03448	0.07818	-0.1197	0.18865

**Knowledge.** As shown in in Table N-12, independent sample t-tests were conducted to compare the knowledge of nursing students in their year of study, years (1-3) and (4-5), to test the hypothesis there was no statistical difference between nursing students who were studying in years (1-3) and in years (4-5) in their knowledge of religious death rituals. Homogeneity of

variance was checked using Levene's test (sig=0.218), which was not significant at 0.05 level. No statistically significant difference was indicated between students studying in years (1-3) and years (4-5) in their knowledge:  $t(412) = 0.320$ ,  $p = 0.749$ , two-tailed. Therefore, the null hypothesis was accepted. So, it was concluded that there existed no statistical difference between nursing students who were studying years (1-3) and years (4-5) in their knowledge of religious death rituals.

**Cultural Awareness.** As shown in Table N-12, independent sample t-tests were conducted to compare the cultural awareness of nursing students in their year of study, in years (1-3) and (4-5) to test the hypothesis there was no statistical difference between nursing students who were studying in years (1-3) and years (4-5). Homogeneity of variance of four subscales was checked using Levene's test. No statistically significant difference was indicated between subscales general experience and year of study: (sig=.534)  $t(411) = 2.554$ ,  $p = .011$ , two tailed).

- No statistically significant difference was indicated between subscales general awareness/attitudes and year of study: (sig=.182)  $t(412) = -2.104$ ,  $p = .036$ , two tailed).
- No statistically significant difference was indicated between subscales nursing classes and clinical instruction and year of study: (sig=.459)  $t(411) = -.256$ ,  $p = .798$ , two tailed).
- No statistically significant difference was indicated between subscales clinical practice in their year of study: (sig=.400)  $t(411) = .432$ ,  $p = .666$ , two tailed).

Hence, the null hypothesis was accepted. So, it was concluded that there was no statistical difference between nursing students who are studying in years (1-3) and years (4-5) in terms of their cultural awareness.

**Descriptive Statistics: Programme of Study.** Table N-13 depicted the mean knowledge scores of nursing students as related to their programme of study. Those who were studying in the Midwifery programme had the highest mean score (7.68), followed by Children's and General Nursing, (6.74), General Nursing (6.61), then Psychiatric Nursing (5.25), with lowest mean score being Intellectual Disability Nursing (4.47).

**Table N- 13***Programme of Study: Mean Scores for Knowledge*

<b>Program of Study: Descriptors, Knowledge</b>								
	N	Mean	Standard Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
<b>General Nursing</b>	201	6.61	3.736	.264	6.09	7.13	0	17
<b>Children's and General Nursing (Integrated)</b>	47	6.74	3.986	.581	5.57	7.92	0	17
<b>Midwifery</b>	25	7.68	3.437	.687	6.26	9.10	2	16
<b>Intellectual Disability Nursing</b>	57	4.47	3.123	.414	3.65	5.30	0	16
<b>Psychiatric Nursing</b>	84	5.25	3.893	.425	4.41	6.09	0	17
<b>Total</b>	<b>414</b>	<b>6.12</b>	<b>3.797</b>	<b>.187</b>	<b>5.75</b>	<b>6.49</b>	<b>0</b>	<b>17</b>

**Inferential Statistics.** This exercise checked the relationship between nursing students programme of study to their knowledge of religious death rituals. The hypothesis was:

$H_0$  7(a): There is no statistical difference between nursing students in their programme of study in their knowledge of religious death rituals.

**Analysis of Variance.** Table N-14 illustrated the one-way analysis of variance conducted to explore the effect of nursing students programme on knowledge of religious death rituals.

**Table N- 14***Programme of Study and Knowledge: Analysis of Variance (ANOVA)*

<b>ANOVA: Knowledge</b>					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	344.914	4	86.228	6.286	<.001
Within Groups	5610.287	409	13.717		
<b>Total</b>	<b>5955.200</b>	<b>413</b>			

**Programme of Study and Knowledge.** In this case (Table N-14) we had five subgroups of programmes (General Nursing, Children's and General Nursing, Midwifery,



Intellectual Disability Nursing, and Psychiatric Nursing). A one-way ANOVA indicated that there was a statistically significant difference in the knowledge of nursing students between different nursing programme's ( $p < 0.001$ ). Hence the null hypothesis, there existed no statistical difference between nursing students in their programme of study in their knowledge of religious death rituals was rejected. Therefore, it was concluded that there existed a statistically significant difference between their programme of study and knowledge.

**Post Hoc Analysis: Bonferroni.** The Bonferroni post hoc analysis (Table N-15) was also performed to check for multiple comparisons within the nursing programs. There was a statistical difference between the General Nursing and Intellectual Disability Nursing Programmes ( $p = 0.001$ ). There was no statistical difference between Children's' and General Nursing programme and the Intellectual Disability programme ( $P = 0.20$ ). There was a statistical difference between Midwifery students and Intellectual Disability Nursing ( $p = 0.003$ ). There was a statistical difference between Psychiatric Nursing and Midwifery. This confirmed that there was a significant difference between the different programme as correlated to knowledge. Hence, the hypothesis was rejected: There existed a significant variance between nursing programmes. So, it was concluded that there existed a significant relationship between nursing students programme and knowledge.

Table N- 15

*Programme of Study and Knowledge: Post Hoc Analysis, Bonferroni*

Multiple Comparisons, Bonferroni: Dependent Variable Knowledge						
mCAS Subscales	Programme of Study	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
<b>General Nursing</b>	Children's and General Nursing (Integrated)	-.138	.600	1.000	-1.83	1.56
	Midwifery	-1.073	.785	1.000	-3.29	1.14
	Intellectual Disability Nursing	2.133*	.556	.001	.56	3.70
	Psychiatric Nursing	1.357	.481	.050	.00	2.72
<b>Children's and General Nursing (Integrated)</b>	General Nursing	.138	.600	1.000	-1.56	1.83
	Midwifery	-.935	.917	1.000	-3.52	1.65
	Intellectual Disability Nursing	2.271*	.730	.020	.21	4.33
	Psychiatric Nursing	1.495	.675	.273	-.41	3.40
<b>Midwifery</b>	General Nursing	1.073	.785	1.000	-1.14	3.29
	Children's and General Nursing (Integrated)	.935	.917	1.000	-1.65	3.52
	Intellectual Disability Nursing	3.206*	.888	.003	.70	5.71
	Psychiatric Nursing	2.430*	.844	.042	.05	4.81
<b>Intellectual Disability Nursing</b>	General Nursing	-2.133*	.556	.001	-3.70	-.56
	Children's and General Nursing (Integrated)	-2.271*	.730	.020	-4.33	-.21
	Midwifery	-3.206*	.888	.003	-5.71	-.70
	Psychiatric Nursing	-.776	.636	1.000	-2.57	1.02
<b>Psychiatric Nursing</b>	General Nursing	-1.357	.481	.050	-2.72	.00
	Children's and General Nursing (Integrated)	-1.495	.675	.273	-3.40	.41
	Midwifery	-2.430*	.844	.042	-4.81	-.05
	Intellectual Disability Nursing	.776	.636	1.000	-1.02	2.57

\*The mean difference is significant at the 0.05 level.

**Descriptive Statistics: Programme of Study and Cultural Awareness.** Table N-16

depicted nursing student mean responses to the cultural awareness subscales. The Table Key for programme of study: General Nursing (GN), Children's and General Nursing - integrated (CGN), Intellectual Disability Nursing (IDN), Psychiatric Nursing (PN)

**Table N- 16**

*Programme of Study and Cultural Awareness: Mean Scores*

Programme of Study: Descriptors									
mCAS Subscales	Programme of Study	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for		Min	Max
						Lower Bound	Upper Bound		
<b>General Experience</b>	GN	201	4.7264	1.01058	0.07128	4.5858	4.867	1.71	7
	CGN	47	4.652	0.90462	0.13195	4.3864	4.9176	2.71	7
	Midwifery	25	4.6705	1.10827	0.22165	4.213	5.1279	2	6.86
	IDN	57	5.0294	0.9761	0.12929	4.7704	5.2884	2.86	7
	PN	83	4.7435	1.16808	0.12821	4.4885	4.9986	1.29	7
	<b>Total</b>	<b>413</b>	<b>4.7598</b>	<b>1.03547</b>	<b>0.05095</b>	<b>4.6597</b>	<b>4.86</b>	<b>1.29</b>	<b>7</b>
<b>General Awareness/ Attitudes</b>	GN	201	4.6542	1.10676	0.07806	4.5003	4.8082	1.75	7
	CGN	47	4.6543	1.05752	0.15426	4.3438	4.9648	2.5	6.5
	Midwifery	25	4.97	1.0881	0.21762	4.5209	5.4191	2.5	6.75
	IDN	57	4.6857	1.02026	0.13514	4.415	4.9564	1.5	7
	PN	84	4.7361	1.13252	0.12357	4.4903	4.9819	1	7
	<b>Total</b>	<b>414</b>	<b>4.6942</b>	<b>1.0915</b>	<b>0.05364</b>	<b>4.5888</b>	<b>4.7997</b>	<b>1</b>	<b>7</b>
<b>Nursing Classes and Clinical Instruction</b>	GN	201	5.073	0.88793	0.06263	4.9495	5.1965	1	7
	CGN	47	5.1676	0.80285	0.11711	4.9319	5.4033	3.38	6.75
	Midwifery	25	5.3079	0.92306	0.18461	4.9268	5.6889	3.63	7
	IDN	57	5.3371	0.86728	0.11487	5.107	5.5672	2.25	7
	PN	83	5.213	0.84305	0.09254	5.029	5.3971	3.33	6.75
	<b>Total</b>	<b>413</b>	<b>5.1626</b>	<b>0.8706</b>	<b>0.04284</b>	<b>5.0783</b>	<b>5.2468</b>	<b>1</b>	<b>7</b>
<b>Clinical Practice</b>	GN	201	5.8719	0.70563	0.04977	5.7738	5.9701	3.63	7
	CGN	47	5.8834	0.64261	0.09373	5.6947	6.072	4.38	7
	Midwifery	25	5.8436	0.56196	0.11239	5.6116	6.0755	4.88	6.88
	IDN	57	5.8418	0.73851	0.09782	5.6458	6.0377	3.5	7
	PN	83	5.8278	0.80324	0.08817	5.6524	6.0032	3.75	7
	<b>Total</b>	<b>413</b>	<b>5.8585</b>	<b>0.71355</b>	<b>0.03511</b>	<b>5.7895</b>	<b>5.9275</b>	<b>3.5</b>	<b>7</b>

The highest mean (5.02) was among students studying Intellectual Disability nursing. The General Awareness/Attitudes subscale mean responses to these items was higher in Midwifery students, nursing classes and clinical instruction mean responses among Intellectual

Disability students (5.33), and clinical practice indicated higher mean scores among Children's and General Nursing (5.88).

**Inferential Statistics.** This exercise (Table N-17) checked the relationship between nursing students programme of study to their cultural awareness of religious death rituals. The hypothesis was:

- $H_0$  7(b): There is no statistical difference between nursing students' programme of study and their cultural awareness of religious death rituals.

**Table N- 17**

*Programme of Study and Cultural Awareness: Analysis of Variance (ANOVA)*

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
<b>General Experience</b>	Between Groups	5.135	4	1.284	1.200	.310
	Within Groups	436.611	408	1.070		
	<b>Total</b>	<b>441.746</b>	<b>412</b>			
<b>General Awareness/Attitude</b>	Between Groups	2.449	4	.612	.512	.727
	Within Groups	489.590	409	1.197		
	<b>Total</b>	<b>492.039</b>	<b>413</b>			
<b>Nursing Classes and Clinical Instruction</b>	Between Groups	4.090	4	1.022	1.354	.249
	Within Groups	308.184	408	.755		
	<b>Total</b>	<b>312.273</b>	<b>412</b>			
<b>Clinical Practice</b>	Between Groups	.165	4	.041	.080	.988
	Within Groups	209.605	408	.514		
	<b>Total</b>	<b>209.770</b>	<b>412</b>			

**Programme of Study and Cultural Awareness Subscales.** As shown in Table N-17, a one-way analysis of variance was conducted to explore the effect of programme of nursing students on General Educational Experience subscale, General Awareness/Attitude subscale, Nursing Classes and Clinical Instruction subscale and the Clinical Practice subscale. The one-way ANOVA indicated that there was no statistically significant difference in the general

educational experience and programmes:  $f(4, 408) = 1.200$ ,  $p = 0.310$ . No statistical difference in general awareness/attitude subscale:  $f(4, 409) = 0.512$ ,  $p = 0.727$ . There was no significant difference in nursing classes and clinical instruction:  $f(4, 408) = 1.354$ ,  $p = 0.249$ . There was no statistical difference in clinical practice and age:  $f(3, 408) = 0.080$ ,  $p = 0.988$ . Hence the hypothesis that there existed no statistical difference between nursing student cultural awareness in the different programmes was accepted. This signified that there was no significant difference between programme of study and cultural awareness.

## Appendix O: Q12-Q20 Statistics

**Introduction to Questions #12-20 (Q12-Q20):** The following sections dealt with complex questions. Therefore, each question was identified in this section to clarify each discussion and table presented.

**Descriptive Statistics: Section 3.** As shown in Table O-1, this section described the relationship between student experience and education in caring for people when death was imminent or at time-of-death to cultural awareness and knowledge of death rituals. Table O-1 presented the knowledge and cultural awareness (four subscales) of nursing students who were present and not present at imminent death or at time of death (Q12).

**Inferential Statistics.** This exercise (Table O-1) checked the relationship between the knowledge and cultural awareness of students who were present and not present when death was imminent or at time-of-death. The hypotheses were:

- **H<sub>0</sub> 12(a):** There is no statistically significant difference between knowledge of nursing students' who were present and not present at an imminent death or death situation.
- **H<sub>0</sub> 12(b):** There is no statistically significant difference between cultural awareness of nursing students' who were present and not present at an imminent death or death situation.

**Table O- 1**

*Present or Not at Death: Descriptive Statistics*

Present or Not at Death: Group Statistics					
Q12: ...present for imminent death or at time of death?		N	Mean	Std. Deviation	Std. Error Mean
Knowledge	No	168	5.15	3.811	.294
	Yes	246	6.78	3.650	.233
General Experience	No	167	4.8219	1.00792	.07799
	Yes	246	4.7176	1.05371	.06718
General Awareness/Attitude	No	168	4.6766	1.08794	.08394
	Yes	246	4.7063	1.09598	.06988
Nursing Classes and Clinical Instruction	No	167	5.1885	.88308	.06833
	Yes	246	5.1449	.86339	.05505
Clinical Practice	No	167	5.8241	.70721	.05473
	Yes	246	5.8819	.71831	.04580

**Independent Sample T-tests.** Independent sample t-tests (Table O-2) were conducted to compare the knowledge and cultural awareness of nursing students who were either present or not present in an imminent death or time of death situation.

**Table O- 2**

*Present or Not at Death: Independent Sample T-test*

<b>Independent Sample T-tests</b>											
		T-tests for Equality of Means									
		Levene's Test for Equality of Variances				Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One Sided p	Two Sided p			Lower	Upper
<b>Knowledge</b>	Equal variances assumed	0.433	0.511	-4.387	412	<.001	<.001	-1.632	0.372	-2.363	-0.901
	Equal variances not assumed			-4.351	348.551	<.001	<.001	-1.632	0.375	-2.369	-0.894
<b>General Experience</b>	Equal variances assumed	0.075	0.785	1.004	411	0.158	0.316	0.10428	0.10382	-0.0998	0.308
	Equal variances not assumed			1.013	366.872	0.156	0.312	0.10428	0.10294	-0.09814	0.307
<b>General Awareness/ Attitude</b>	Equal variances assumed	0.251	0.617	-0.272	412	0.393	0.786	-0.02971	0.10937	-0.2447	0.185
	Equal variances not assumed			-0.272	360.624	0.393	0.786	-0.02971	0.10922	-0.24449	0.185
<b>Nursing Classes and Clinical Instruction</b>	Equal variances assumed	0.002	0.96	0.499	411	0.309	0.618	0.04361	0.08737	-0.12813	0.215
	Equal variances not assumed			0.497	351.156	0.31	0.619	0.04361	0.08775	-0.12897	0.216
<b>Clinical Practice</b>	Equal variances assumed	0.015	0.902	-0.807	411	0.21	0.42	-0.05776	0.07157	-0.19846	0.083
	Equal variances not assumed			-0.809	360.22	0.209	0.419	-0.05776	0.07136	-0.1981	0.083

**Inferential Statistics: Knowledge.** As shown in Table O-2, independent sample t-tests were conducted to compare the knowledge of nursing students who were present in an imminent death or death situation (M=6.78, SD=3.65) compared to those who were not present in an imminent death or time-of-death situation (M=5.15, SD=3.811).

The null hypothesis, there existed no statistical difference between knowledge of nursing students who were present and not present at an imminent death or death situation. Homogeneity of variance was checked using Levene's test,  $F(412) = 0.433$ ,  $p = 0.511$ , which was significant at 0.05 level. A statistically significant difference was indicated between knowledge of nursing students who were present and not present in an imminent death or death situation:  $t(412) = 4.38$ ,  $p < 0.001$ , two-tailed. Therefore, the null hypothesis was rejected. So, it was concluded that there existed a statistical difference between knowledge of nursing students who were present and not present in an imminent death or death situation.

**Inferential Statistics: Cultural Awareness, General Experience.** As shown in Table O-2, independent sample t-tests were conducted to compare cultural awareness to the general experience of nursing students who were present in an imminent death or death situation ( $M = 4.71$ ,  $SD = 1.05$ ) compared to those who were not present at an imminent death or death situation, as related to the four subscales ( $M = 4.82$ ,  $SD = 1.007$ ). The Null hypothesis, there existed no statistical difference between general experience of nursing students who were present and not present at an imminent death or death situation. Homogeneity of variance was checked using Levene's test ( $\text{sig} = 0.785$ ), which was significant at 0.05 level. No statistically significant difference was indicated between general experience of nursing students who were present and not present in an imminent death or death situation:  $t(411) = 1.004$ ,  $p = 0.316$ , two-tailed. Therefore, the null hypothesis was accepted. So, it was concluded that there existed no statistical difference between general experience of nursing students who were present and not present in an imminent death or death situation.

**Inferential Statistics: Cultural Awareness, General Awareness/Attitude.** As shown in Table O-2, independent sample t-tests were conducted to compare cultural awareness to attitude of nursing students who were present in an imminent death or death situation ( $M = 4.70$ ,  $SD = 1.09$ ) compared to those who were not present in an imminent death or death situation as related to the four subscales. ( $M = 4.67$ ,  $SD = 1.08$ ). The Null hypothesis, there existed no statistical difference between attitude of nursing students who were present and not present at an imminent death or death situation. Homogeneity of variance was checked using Levene's



test (sig=0.617), which was significant at 0.05 level. No statistically significant difference was indicated between general experience of nursing students who were present and not present in an imminent death or death situation:  $t(412) = -0.272, p=0.786$ , two-tailed. Therefore, the null hypothesis was accepted. So, it was concluded that there existed no statistical difference between general awareness and attitude of nursing students who were present and not present in an imminent death or death situation.

**Inferential Statistics: Cultural Awareness, Nursing Classes and Clinical Instruction.** As shown in Table O-2, independent sample t-tests were conducted to compare nursing classes and clinical instruction of nursing students who were present in an imminent death or death situation ( $M=5.14, SD=0.86$ ) compared to those who were not present in an imminent death or time-of-death situation as related to the four subscales. ( $M=5.18, SD=0.88$ ). The Null hypothesis, there existed no statistical difference between nursing classes and clinical instruction of nursing students who were present and not present at an imminent death or death situation. Homogeneity of variance was checked using Levene's test (sig=0.960), which was significant at 0.05 level. There was no statistically significant difference was indicated between nursing classes and clinical instruction of nursing students who were present and not present in an imminent death or death situation:  $t(411) = 0.499, p=0.618$ , two-tailed. Therefore, the null hypothesis was accepted. So, it was concluded that there existed no statistical difference between nursing classes and clinical instructions of nursing students who were present and not present in an imminent death or death situation.

**Inferential Statistics: Cultural Awareness, Clinical Practice.** As shown in Table O-2, independent sample t-tests were conducted to compare clinical practice of nursing students who were present in an imminent death or death situation ( $M=5.88, SD=0.71$ ) compared to those who were not present in an imminent death or death situation as related to the four subscales. ( $M=5.82, SD=0.70$ ). The Null hypothesis, there existed no statistical difference between clinical practice of nursing students who were present and not present at an imminent death or death situation. Homogeneity of variance was checked using Levene's test (sig=0.902), which was significant at 0.05 level. No statistically significant difference was indicated between

clinical practice of nursing students who were present and not present in an imminent death or death situation:  $t(411) = -0.807$ ,  $p=0.420$ , two-tailed. Therefore, the null hypothesis was accepted. So, it was concluded that there existed no statistical difference between clinical practice of nursing students who were present and not present in an imminent death or death situation.

**Descriptive Statistics (Q13): Cared for Different Religious Backgrounds.** Question 13 (Q13) on the national survey was "Have you ever cared for a person of a different religious background in an imminent death or death situation?"

Table O-3 presented the knowledge and cultural awareness scores of nursing students who had or had not cared for a person with a different religious background in an imminent death situation or at time-of-death. The mean knowledge and cultural awareness scores of those who cared for a person of a different religious background in an imminent death or time-of-death situation was higher compared to those who had not cared.

**Table O- 3**

*Cared for a Different Religious Background: Descriptive Statistics*

Q13: Have you ever cared for a person of a different religious background in an imminent death or death situation? (Tick one box only)		N	Mean	Std. Deviation	Std. Error Mean
<b>Knowledge</b>	No	340	5.87	3.724	.202
	Yes	74	7.26	3.945	.459
<b>General Experience</b>	No	339	4.7732	1.01736	.05526
	Yes	74	4.6984	1.11996	.13019
<b>General Awareness/Attitude</b>	No	340	4.6605	1.09617	.05945
	Yes	74	4.8491	1.06332	.12361
<b>Nursing Classes and Clinical Instruction</b>	No	339	5.1855	.85599	.04649
	Yes	74	5.0575	.93355	.10852
<b>Clinical Practice</b>	No	339	5.8787	.70546	.03832
	Yes	74	5.7661	.74748	.08689

**Inferential Statistics.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they had cared for a person with a different religious background in an imminent death or time-of-death situation. Hypotheses were:

- **H<sub>0</sub> 13(a):** There is no statistically significant difference between knowledge of nursing students who cared for and those who did not care for a person with a different religious background in an imminent death or time of death situation.
- **H<sub>0</sub> 13(b):** There is no statistically significant difference between cultural awareness of nursing students who cared for and those who did not care for a person with a different religious background in an imminent death or time of death situation.

**Independent Sample T-tests.** Independent sample t-tests (Table O-4) were conducted to compare knowledge and cultural awareness of nursing students who had or had not cared for a person of different religious background in an imminent death or time of death situation.

**Knowledge.** Independent sample t-tests (as shown in Table O-4) were conducted to compare knowledge of nursing students who cared for a person of different religious background in an imminent death or death situation ( $M=7.26$ ,  $SD=3.72$ ) compared to those who had not cared for anyone in an imminent death or death situation as related to the four subscales. ( $M=5.87$ ,  $SD=3.94$ ). Homogeneity of variance was checked using Levene's test,  $F(412) = 0.50$ ,  $p=0.479$  which was significant at 0.05 level. There is a statistically significant difference was indicated between students who cared and not did not care for a patient at imminent death or in a time-of-death situation and their knowledge  $t(412) = 2.871$ ,  $p=0.004$ . Therefore, the null hypothesis was rejected. So, it was concluded that there existed a statistical difference between knowledge of nursing students who cared for and did not care for a person in an imminent death or death situation

**Cultural awareness.** As shown in Table O-4, independent sample t-tests were conducted to compare cultural awareness (four subscales) of nursing students who cared for a person of different religious background in an imminent death or death situation. ( $M=6.78$ ,  $SD=3.65$ ) compared to those who had not cared for a person in an imminent death or death

situation as related to the four subscales. (M=5.15, SD=3.811). Homogeneity of variance was checked using Levene's test, which was not significant at 0.05 level. No statistically significant difference was indicated between students who had cared for or those who had not cared for a person at imminent death or in a time-of-death situation and their cultural awareness. Therefore, the null hypothesis was accepted. It was concluded that there was no statistical difference between cultural awareness of nursing students who cared for or did not care for persons in an imminent death or death situation.

**Table O- 4**

*Cared for a Different Religious Background: Independent Sample T-tests*

Independent Sample T-tests											
		T-tests for Equality of Means									
		Levene's Test for Equality of Variances						Significance		95% Confidence Interval of the Difference	
		F	Sig.	t	df	One Sided p	Two Sided p	Mean Difference	Std. Error Difference	Lower	Upper
<b>Knowledge</b>	Equal variances assumed	0.502	0.479	-2.871	412	0.002	0.004	-1.386	0.483	-2.335	-0.437
	Equal variances not assumed			-2.766	103.232	0.003	0.007	-1.386	0.501	-2.38	-0.392
<b>General Experience</b>	Equal variances assumed	0.295	0.587	0.563	411	0.287	0.574	0.07487	0.13297	-0.18652	0.33626
	Equal variances not assumed			0.529	100.96	0.299	0.598	0.07487	0.14143	-0.2057	0.35543
<b>General Awareness/ Attitude</b>	Equal variances assumed	0.16	0.69	-1.348	412	0.089	0.178	-0.18856	0.13988	-0.46352	0.0864
	Equal variances not assumed			-1.375	109.416	0.086	0.172	-0.18856	0.13716	-0.4604	0.08328
<b>Nursing Classes and Clinical Instrucion</b>	Equal variances assumed	0.699	0.404	1.146	411	0.126	0.252	0.12802	0.11166	-0.09149	0.34752
	Equal variances not assumed			1.084	101.514	0.14	0.281	0.12802	0.11806	-0.10617	0.36221
<b>Clinical Practice</b>	Equal variances assumed	0.075	0.784	1.23	411	0.11	0.219	0.11256	0.0915	-0.0673	0.29242
	Equal variances not assumed			1.185	103.304	0.119	0.239	0.11256	0.09497	-0.07578	0.30089

**Descriptive Statistics Frequency of a Christian Background (Q14.1).** Question 14 (Q14) was divided into three parts: Part 1 reflected upon Christianity (Q14.1), Part 2 reflected upon Islam (Q14.2), and Part 3 reflected upon Hinduism (Q14.3). The question was "How often have you cared for a patient from any of the following religious backgrounds in an imminent death or death situation?" Relevant exercises are shown in Table O-5, O-6, and O-7.

**Table O- 5**

*Cared for a Person with a Christian Background: Descriptive Statistic*

		<b>Descriptors</b>				
		N	Mean	Std. Deviation	F	Sig.
<b>Knowledge</b>	0	1	8.00	.	1.139	.338
	Never	117	5.55	3.918		
	Rarely	49	6.39	4.187		
	Sometimes	89	6.07	3.496		
	Often	158	6.47	3.736		
	<b>Total</b>	<b>414</b>	<b>6.12</b>	<b>3.797</b>		
<b>General Experience</b>	0	1	5.8333	.	.417	.796
	Never	117	4.7691	1.06595		
	Rarely	49	4.7060	1.12997		
	Sometimes	88	4.7016	.96452		
	Often	158	4.7952	1.02800		
	<b>Total</b>	<b>413</b>	<b>4.7598</b>	<b>1.03547</b>		
<b>General Awareness/Attitude</b>	0	1	5.2500	.	.425	.791
	Never	117	4.6026	1.17624		
	Rarely	49	4.6531	1.16497		
	Sometimes	89	4.7228	1.04596		
	Often	158	4.7553	1.03472		
	<b>Total</b>	<b>414</b>	<b>4.6942</b>	<b>1.09150</b>		
<b>Nursing Classes and Clinical Instruction</b>	0	1	6.0000	.	1.045	.384
	Never	117	5.1756	.89700		
	Rarely	48	5.1329	.77203		
	Sometimes	89	5.0274	.93880		
	Often	158	5.2327	.83780		
	<b>Total</b>	<b>413</b>	<b>5.1626</b>	<b>.87060</b>		
<b>Clinical Practice</b>	0	1	6.2500	.	.656	.623
	Never	117	5.8280	.71037		
	Rarely	48	5.9185	.66641		
	Sometimes	89	5.7790	.80286		
	Often	158	5.9051	.67859		
	<b>Total</b>	<b>413</b>	<b>5.8585</b>	<b>.71355</b>		

With regard to Christianity (Q14.1), Table 41 depicted descriptive statistics of the knowledge and cultural awareness of nursing students who had or had not cared (frequency of

care) for a person of a Christian religious background in an imminent death or time-of-death death situation.

**Inferential Statistics.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they had ever cared for a Christian person in an imminent death or time-of-death situation. Hypotheses were:

- **H<sub>0</sub> 14 (a)** There is no statistically significant difference between knowledge of nursing students who never cared and who cared often for a Christian person in an imminent death or death situation.
- **H<sub>0</sub> 14(b):** There is no statistically significant difference between cultural awareness of nursing students who never cared and who cared often for a Christian person in an imminent death or death situation.

**Analysis of Variance, Knowledge and Cultural Awareness of Christian Rituals.**

As shown in Table O-6, a one-way analysis of variance was conducted to explore the effects of knowledge and cultural awareness and frequency of care with regard to Christian persons in an imminent death situation or at time-of-death.

**Analysis of Variance, Knowledge of Christianity.** A one-way analysis of variance was conducted to explore the effects of knowledge and frequency of care. A one-way ANOVA indicated that there was no statistically significant difference. This signified that there was no significant difference between frequency of care and knowledge. Hence the null hypothesis was accepted. It was concluded that there existed no statistical difference between knowledge of nursing students who never cared and who cared often for a Christian person in an imminent death or death situation.

**Analysis of Variance, Cultural Awareness of Christianity.** As shown in Table O-6, a one-way analysis of variance was conducted to explore the effect of frequency of care on cultural awareness (four subscales) General Educational Experience subscale, General Awareness/Attitude subscale, Nursing Classes and Clinical Instruction subscale and the Clinical Practice subscale. A one-way ANOVA indicated that there was no statistically significant difference in the cultural awareness and frequency of care (often to never). This

signified that there was no significant difference between frequency of care provided to Christian person and cultural awareness. Hence the null hypothesis was accepted. Hence, it was concluded that there existed no statistical difference between nursing students who were in different programmes and their cultural awareness.

**Table O- 6**

*Christianity, Frequency of Care and Cultural Awareness: Analysis of Variance (ANOVA)*

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
<b>Knowledge</b>	Between Groups	65.582	4	16.396	1.139	.338
	Within Groups	5889.618	409	14.400		
	<b>Total</b>	<b>5955.200</b>	<b>413</b>			
<b>General Experience</b>	Between Groups	1.801	4	.450	.417	.796
	Within Groups	439.946	408	1.078		
	<b>Total</b>	<b>441.746</b>	<b>412</b>			
<b>General Awareness/Attitude</b>	Between Groups	2.037	4	.509	.425	.791
	Within Groups	490.003	409	1.198		
	<b>Total</b>	<b>492.039</b>	<b>413</b>			
<b>Nursing Classes and Clinical instruction</b>	Between Groups	3.166	4	.792	1.045	.384
	Within Groups	309.107	408	.758		
	<b>Total</b>	<b>312.273</b>	<b>412</b>			
<b>Clinical Practice</b>	Between Groups	1.341	4	.335	.656	.623
	Within Groups	208.429	408	.511		
	<b>Total</b>	<b>209.770</b>	<b>412</b>			

**Descriptive Statistics: Frequency, Islamic Religious Background (Q14.2).** Table O-7 presented the knowledge and cultural awareness scores of nursing students who had or had not cared (frequency of care) for a person with an Islamic religious background in an imminent death or time-of-death situation? The mean knowledge score of nursing students who cared for Islam patients rarely was higher as compared to those who cared often.

**Table O- 7***Cared for a Person with an Islamic Background: Descriptive Statistics*

Descriptors									
		95% Confidence Interval for Mean							
		N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Min	Max
Knowledge	Never	302	6.18	3.736	0.215	5.76	6.6	0	17
	Rarely	65	6.25	4.023	0.499	5.25	7.24	0	15
	Sometimes	34	6.15	4.128	0.708	4.71	7.59	0	16
	Often	13	4	2.828	0.784	2.29	5.71	0	9
	Total	414	6.12	3.797	0.187	5.75	6.49	0	17
General Experience	Never	301	4.8231	1.05143	0.0606	4.7038	4.9424	1.29	7
	Rarely	65	4.593	1.02196	0.12676	4.3398	4.8463	1.71	7
	Sometimes	34	4.6996	0.93461	0.16028	4.3735	5.0257	2.43	6.43
	Often	13	4.2857	0.83503	0.2316	3.7811	4.7903	2.57	5.57
	Total	413	4.7598	1.03547	0.05095	4.6597	4.86	1.29	7
General Awareness/ Attitude	Never	302	4.6879	1.11817	0.06434	4.5613	4.8145	1	7
	Rarely	65	4.791	1.10014	0.13646	4.5184	5.0636	2	7
	Sometimes	34	4.5956	0.85505	0.14664	4.2972	4.8939	2.75	6.5
	Often	13	4.6154	1.04391	0.28953	3.9846	5.2462	3.25	6.75
	Total	414	4.6942	1.0915	0.05364	4.5888	4.7997	1	7
Nursing Classes and Clinical Instruction	Never	301	5.1642	0.90131	0.05195	5.0619	5.2664	1	7
	Rarely	65	5.2912	0.72254	0.08962	5.1122	5.4702	3.38	6.75
	Sometimes	34	4.9921	0.77906	0.13361	4.7203	5.2639	3.38	7
	Often	13	4.9277	1.01415	0.28128	4.3149	5.5406	2.88	6.4
	Total	413	5.1626	0.8706	0.04284	5.0783	5.2468	1	7
Clinical Practice	Never	301	5.8969	0.70214	0.04047	5.8172	5.9765	3.5	7
	Rarely	65	5.7025	0.78902	0.09787	5.507	5.898	4	7
	Sometimes	34	5.8946	0.58937	0.10108	5.689	6.1002	4.5	7
	Often	13	5.6552	0.8142	0.22582	5.1632	6.1472	4.5	7
	Total	413	5.8585	0.71355	0.03511	5.7895	5.9275	3.5	7

**Inferential Statistics.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they had or had not ever cared for an Islamic person in an imminent death or time-of-death situation. Hypotheses were:



- **H<sub>0</sub> 14 (a)** There is no statistically significant difference between knowledge of nursing students who never cared and who cared often for an Islamic person in an imminent death or death situation.
- **H<sub>0</sub> 14(b):** There is no statistically significant difference between cultural awareness of nursing students who never cared and who cared often for an Islamic person in an imminent death or death situation.

**Analysis of Variance, Knowledge and Cultural Awareness of Islamic Rituals.** As shown in Table O-8, a one-way analysis of variance was conducted to explore the effects of knowledge and cultural awareness and frequency of care with regard to Islamic persons in an imminent death situation or at time-of-death.

**Table O- 8**

*Islam, Frequency of Care, Cultural Awareness: Analysis of Variance (ANOVA)*

<b>ANOVA</b>						
		Sum of Squares	df	Mean Square	F	Sig.
<b>Knowledge</b>	Between Groups	60.530	3	20.177	1.403	.241
	Within Groups	5894.671	410	14.377		
	<b>Total</b>	<b>5955.200</b>	<b>413</b>			
<b>General Experience</b>	Between Groups	6.059	3	2.020	1.896	.130
	Within Groups	435.687	409	1.065		
	<b>Total</b>	<b>441.746</b>	<b>412</b>			
<b>General Awareness/Attitude</b>	Between Groups	1.033	3	.344	.287	.834
	Within Groups	491.007	410	1.198		
	<b>Total</b>	<b>492.039</b>	<b>413</b>			
<b>Nursing Classes and Clinical instruction</b>	Between Groups	2.781	3	.927	1.225	.300
	Within Groups	309.492	409	.757		
	<b>Total</b>	<b>312.273</b>	<b>412</b>			
<b>Clinical Practice</b>	Between Groups	2.607	3	.869	1.716	.163
	Within Groups	207.162	409	.507		
	<b>Total</b>	<b>209.770</b>	<b>412</b>			

**Analysis of Variance, Knowledge of Islam.** As shown in Table O-8, a one-way analysis of variance was conducted to explore the effects of knowledge and frequency of care. A one-way ANOVA indicated that there was no statistically significant difference. This signified that there was no significant difference between frequency of care and knowledge. Hence the null hypothesis was accepted. It was concluded that there existed no statistical difference between knowledge of nursing students who never cared and who cared often for an Islam person in an imminent death or death situation.

**Analysis of Variance, Cultural Awareness of Islam.** As shown in Table O-8, a one-way analysis of variance was conducted to explore the effect of frequency of care on cultural awareness (four subscales) General Educational Experience subscale, General Awareness/Attitude subscale, Nursing Classes and Clinical Instruction subscale and the Clinical Practice subscale. A one-way ANOVA indicated that there was no statistically significant difference in the cultural awareness and frequency of care (often to never). This signified that there was no significant difference between frequency of care provided to Islam person and cultural awareness. Hence the null hypothesis was accepted. It was concluded that there existed no statistical difference between knowledge of nursing students who never cared and who cared often for an Islam person in an imminent death or death situation.

**Descriptive Statistics: Frequency of a Hindu Background (Q14.3).** Table O-9 presented the knowledge and cultural awareness scores of nursing students who had or had not cared (frequency of care) for a person of a Hindu religious background in an imminent death or time-of-death situation.

**Inferential Statistics.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they had or had not ever cared for a Hindu person in an imminent death or time-of-death situation. Hypotheses were:

- **H<sub>0</sub> 14(a)** There is no statistically significant difference between knowledge of nursing students and frequency of care (who never cared and who cared often) for a Hindu person in an imminent death or death situation.

- **H<sub>0</sub> 14(b):** There is no statistically significant difference between cultural awareness of nursing students and frequency of care (who never cared and who cared often) for a Hindu person in an imminent death or death situation.

**Table O- 9**

*Cared for a Person with a Hindu Background: Descriptive Statistics*

Descriptors									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Knowledge	Never	330	6.14	3.718	0.205	5.73	6.54	0	17
	Rarely	56	6.27	4.287	0.573	5.12	7.42	0	16
	Sometimes	24	6.08	3.889	0.794	4.44	7.73	1	13
	Often	4	2.75	0.5	0.25	1.95	3.55	2	3
	Total	414	6.12	3.797	0.187	5.75	6.49	0	17
General Experience	Never	329	4.8047	1.05969	0.05842	4.6898	4.9197	1.29	7
	Rarely	56	4.5685	0.94027	0.12565	4.3166	4.8203	2.43	7
	Sometimes	24	4.5982	0.96199	0.19637	4.192	5.0044	2.57	6.33
	Often	4	4.7143	0.23328	0.11664	4.3431	5.0855	4.43	5
	Total	413	4.7598	1.03547	0.05095	4.6597	4.86	1.29	7
General Awareness/ Attitude	Never	330	4.6929	1.12861	0.06213	4.5707	4.8151	1	7
	Rarely	56	4.7545	0.91886	0.12279	4.5084	5.0005	3	7
	Sometimes	24	4.5833	0.97151	0.19831	4.1731	4.9936	2.25	6.25
	Often	4	4.625	1.19896	0.59948	2.7172	6.5328	3.5	6.25
	Total	414	4.6942	1.0915	0.05364	4.5888	4.7997	1	7
Nursing Classess and Clinical instruction	Never	329	5.1697	0.88488	0.04878	5.0737	5.2657	1	7
	Rarely	56	5.0972	0.81892	0.10943	4.8778	5.3165	3.38	6.75
	Sometimes	24	5.1533	0.79099	0.16146	4.8193	5.4873	3.71	7
	Often	4	5.5464	1.05277	0.52639	3.8712	7.2216	4.13	6.4
	Total	413	5.1626	0.8706	0.04284	5.0783	5.2468	1	7
Clinical Practice	Never	329	5.8898	0.69952	0.03857	5.8139	5.9657	3.5	7
	Rarely	56	5.7232	0.7649	0.10221	5.5184	5.9281	4	7
	Sometimes	24	5.7986	0.75788	0.1547	5.4786	6.1186	4	7
	Often	4	5.5357	0.82233	0.41117	4.2272	6.8442	4.63	6.5
	Total	413	5.8585	0.71355	0.03511	5.7895	5.9275	3.5	7

**Analysis of Variance, Knowledge and Cultural Awareness of Hindu Rituals.** A one-way analysis of variance was conducted to explore the effects of knowledge and cultural awareness and frequency of care with regard to Hindu persons in an imminent death situation or at time-of-death (Table O-10).

**Table O- 10***Hinduism, Frequency of Care, Cultural Awareness: Analysis of Variance (ANOVA)*

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
<b>Knowledge</b>	Between Groups	46.771	3	15.590	1.082	.357
	Within Groups	5908.429	410	14.411		
	<b>Total</b>	<b>5955.200</b>	<b>413</b>			
<b>General Experience</b>	Between Groups	3.349	3	1.116	1.042	.374
	Within Groups	438.397	409	1.072		
	<b>Total</b>	<b>441.746</b>	<b>412</b>			
<b>General Awareness/Attitude</b>	Between Groups	.518	3	.173	.144	.933
	Within Groups	491.521	410	1.199		
	<b>Total</b>	<b>492.039</b>	<b>413</b>			
<b>Nursing Classes and Clinical instruction</b>	Between Groups	.848	3	.283	.371	.774
	Within Groups	311.426	409	.761		
	<b>Total</b>	<b>312.273</b>	<b>412</b>			
<b>Clinical Practice</b>	Between Groups	1.850	3	.617	1.213	.305
	Within Groups	207.919	409	.508		
	<b>Total</b>	<b>209.770</b>	<b>412</b>			

**Analysis of Variance, Knowledge.** As shown in Table O-10, a one-way analysis of variance was conducted to explore the effects of knowledge and frequency of care. A one-way ANOVA indicated that there was no statistically significant difference. This signified that there was no significant difference between frequency of care and knowledge. Hence the null hypothesis was accepted. It was concluded that there existed no statistical difference between knowledge of nursing students' who never cared and who cared often for a Hindu person in an imminent death or death situation.

**Analysis of Variance, Cultural Awareness.** As shown in Table O-10, a one-way analysis of variance was conducted to explore the effect of frequency of care on cultural

awareness (four subscales) General Educational Experience subscale, General Awareness/Attitude subscale, Nursing Classes and Clinical Instruction subscale and the Clinical Practice subscale. A one-way ANOVA indicated that there was no statistically significant difference in the cultural awareness and frequency of care (often to never). This signified that there was no significant difference between frequency of care provided to Hindu person and cultural awareness. Hence the null hypothesis was accepted. It was concluded that there existed no statistical difference between knowledge of nursing students who never cared and who cared often for a Hindu person in an imminent death or death situation.

**Descriptive Statistics: Study Outside of Your Nursing Programme (Q15).** Question 15 (Q15) was "Outside of your current nursing programme, have you learnt about religious death rituals?" Table O-11 presented the knowledge and cultural awareness scores of nursing students who had learnt about religious death rituals outside of their current nursing programme.

**Table O- 11**

*Learnt Outside of Current Nursing Programme: Descriptive Statistic*

<b>Learnt Outside of Current Nursing Programme: Group Statistics</b>					
		Q15: Outside of your current nursing programme, have you learnt about religious death rituals?			
		N	Mean	Std. Deviation	Std. Error Mean
<b>Knowledge</b>	No	230	5.14	3.537	.233
	Yes	183	7.34	3.775	.279
<b>General Experience</b>	No	229	4.8110	.99197	.06555
	Yes	183	4.6899	1.08625	.08030
<b>General Awareness/Attitude</b>	No	230	4.6630	1.11881	.07377
	Yes	183	4.7304	1.06032	.07838
<b>Nursing Classes and Clinical instruction</b>	No	229	5.1493	.82800	.05472
	Yes	183	5.1746	.92343	.06826
<b>Clinical Practice</b>	No	229	5.8112	.74716	.04937
	Yes	183	5.9155	.66807	.04938

**Inferential Statistics.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they had studied about religious death rituals outside of their current nursing programme. Hypotheses were:

- **H<sub>0</sub> 15(a):** There is no statistically significant difference between knowledge of nursing students who studied about religious death rituals within their current nursing programme and outside their current nursing programme.
- **H<sub>0</sub> 15(b):** There is no statistically significant difference between cultural awareness of nursing students who studied about religious death rituals within their current nursing programme and outside their current nursing programme.

**Independent Sample T-tests.** Independent Sample T-tests (Table O-12) were conducted to compare knowledge and cultural awareness of nursing students who had or had not studied religious death rituals outside of their current nursing program. **Independent Sample T-tests, Knowledge.** As shown in Table O-12, independent sample t-tests were conducted to compare knowledge of nursing students who students who studied within their current nursing programme with those who had studied outside their current nursing programme. Homogeneity of variance was checked using Levene's test, which is significant at 0.05 level:  $t(411) = 6.093, p < 0.001$ . No statistically significant difference was indicated between students who studied within their current nursing programme and outside their current nursing programme. Therefore, the null hypothesis was rejected. It was concluded that there existed no statistical difference between knowledge of nursing students who studied within their current nursing programme and outside their current nursing programme.

**Independent Sample T-tests, Cultural Awareness.** As shown in Table O-12, independent sample t-tests were conducted to compare cultural awareness of nursing students who studied within their current nursing programme and outside their current nursing programme. Homogeneity of variance was checked using Levene's test, which was significant at  $p < 0.005$ . No statistically significant difference was indicated between students who studied within their current nursing programme and outside their current nursing programme. Therefore, the hypothesis was accepted that there existed no statistical difference between

cultural awareness of nursing students who studied within their current nursing programme and outside their current nursing programme.

**Table O- 12**

*Learnt Within or Outside of Nursing Programme: Independent Sample T-test*

Independent Sample T-tests											
		T-tests for Equality of Means								95% Confidence Interval of the Difference	
		Levene's Test for Equality of Variances						Significance			
		F	Sig.	t	df	One Sided p	Two Sided p	Mean Difference	Std. Error Difference	Lower	Upper
<b>Knowledge</b>	Equal variances assumed	1.46	0.228	-6.093	411	<.001	<.001	-2.2	0.361	-2.909	-1.49
	Equal variances not assumed			-6.048	378.389	<.001	<.001	-2.2	0.364	-2.915	-1.485
<b>General Experience</b>	Equal variances assumed	0.543	0.462	1.18	410	0.119	0.239	0.12109	0.10261	-0.08062	0.3228
	Equal variances not assumed			1.168	373.128	0.122	0.243	0.12109	0.10366	-0.08274	0.32491
<b>General Awareness/ Attitude</b>	Equal variances assumed	0.293	0.588	-0.622	411	0.267	0.534	-0.06738	0.1083	-0.28026	0.14551
	Equal variances not assumed			-0.626	398.647	0.266	0.532	-0.06738	0.10764	-0.27898	0.14423
<b>Nursing Classess and Clinical instruction</b>	Equal variances assumed	0.661	0.417	-0.292	410	0.385	0.77	-0.02527	0.08643	-0.19516	0.14463
	Equal variances not assumed			-0.289	369.305	0.386	0.773	-0.02527	0.08748	-0.1973	0.14676
<b>Clinical Practice</b>	Equal variances assumed	3.854	0.05	-1.475	410	0.07	0.141	-0.10432	0.07071	-0.24332	0.03468
	Equal variances not assumed			-1.494	404.819	0.068	0.136	-0.10432	0.06983	-0.2416	0.03296

## Appendix P: Q17 Statistics

**Descriptive Statistics: Study Within Your Nursing Programme.** Question 17 (Q17) was "About which of the three different religious death rituals have you learnt in your current nursing programme?"

A separate section sought information regarding each of the three religions: Christianity (17.1), Islam (17.2), and Hinduism (17.3). Table P-1 presented the knowledge and cultural awareness scores of nursing students with regard to learning about Christianity within their current nursing programme (Q17.1). Table P-2 was the related Independent Samples Test.

**Table P- 1**

*Christianity Learnt Within Current Nursing Programme: Descriptive Statistics*

<b>Christianity Learnt Within Current Nursing Programme: Group Statistics</b>					
	Q17.1 Learnt About Christianity	N	Mean	Std. Deviation	Std. Error Mean
<b>Knowledge</b>	No	194	5.69	3.825	.275
	Yes	216	6.60	3.702	.252
<b>General Experience</b>	No	193	4.7585	1.02642	.07388
	Yes	216	4.7651	1.03562	.07047
<b>General Awareness/Attitude</b>	No	194	4.6027	1.08902	.07819
	Yes	216	4.7593	1.08602	.07389
<b>Nursing Classes and Clinical Instruction</b>	No	193	5.0717	.83163	.05986
	Yes	216	5.2277	.89543	.06093
<b>Clinical Practice</b>	No	193	5.8860	.71133	.05120
	Yes	216	5.8462	.71102	.04838

**Inferential Statistics: Christianity.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they had learnt about Christian religious death rituals within their current nursing programme. Hypotheses were:

- **H<sub>0</sub> 17(a):** There is no statistically significant difference between knowledge of nursing students who learnt about Christian religious death rituals in their current nursing programme and those who hadn't learnt in their current nursing programme.



- $H_0$  17(b): There is no statistically significant difference between cultural awareness of nursing students who learnt about Christian religious death rituals in their current nursing programme and those who hadn't learnt in their current nursing programme.

**Table P- 2**

*Christianity Learnt Within Current Nursing Programme: Independent Sample T-tests*

Independent Samples Test: Christianity											
		t-test for Equality of Means									
		Levene's Test for Equality of Variances		Significance						95% Confidence Interval of the Difference	
		F	Sig.	t	df	One Sided p	Two Sided p	Mean Difference	Std. Error Difference	Lower	Upper
<b>Knowledge</b>	Equal variances assumed	0.002	0.96	-2.451	408	0.007	0.015	-0.912	0.372	-1.643	-0.18
	Equal variances not assumed			-2.447	400.11	0.007	0.015	-0.912	0.373	-1.644	-0.179
<b>General Experience</b>	Equal variances assumed	0.178	0.674	-0.065	407	0.474	0.948	-0.00666	0.10215	-0.20747	0.19415
	Equal variances not assumed			-0.065	402.644	0.474	0.948	-0.00666	0.1021	-0.20737	0.19405
<b>General Awareness/ Attitude</b>	Equal variances assumed	0.189	0.664	-1.456	408	0.073	0.146	-0.1566	0.10756	-0.36805	0.05485
	Equal variances not assumed			-1.456	403.079	0.073	0.146	-0.1566	0.10758	-0.36809	0.05489
<b>Nursing Classes and Clinical Instruction</b>	Equal variances assumed	0.333	0.564	-1.818	407	0.035	0.07	-0.15594	0.08577	-0.32455	0.01266
	Equal variances not assumed			-1.826	406.383	0.034	0.069	-0.15594	0.08541	-0.32385	0.01196
<b>Clinical Practice</b>	Equal variances assumed	0.242	0.623	0.565	407	0.286	0.573	0.03977	0.07044	-0.09871	0.17824
	Equal variances not assumed			0.565	401.836	0.286	0.573	0.03977	0.07044	-0.09871	0.17825

**Knowledge: Christianity.** As shown in Table P-2, independent sample t-tests were conducted to compare knowledge of nursing students who students who studied within their current nursing programme and outside their current nursing programme. Homogeneity of variance was checked using Levene's test, which was not significant at 0.05 level. No statistically significant difference was indicated between students who studied within their current nursing programme and outside their current nursing programme. Hence, the null

hypothesis was accepted. Therefore, it was concluded that there was no statistical difference between knowledge of nursing students who learnt about religious death rituals of Christianity in their current nursing programme and those who hadn't learnt in their current nursing programme.

**Cultural awareness: Christianity.** As shown in Table P-2, independent sample t-tests were conducted to compare cultural awareness of nursing students who studied within their current nursing programme and outside their current nursing programme. Homogeneity of variance was checked using Levene's test, which was significant at  $p < 0.005$ . No statistically significant difference was indicated between students who studied within their current nursing programme and outside their current nursing programme. Therefore, the null hypothesis was accepted. Therefore, it was concluded that there existed no statistical difference between cultural awareness of nursing students' who learnt about religious death rituals of Christianity in their current nursing programme and those who hadn't learnt in their current nursing programme.

**Descriptive Statistics: Study Within Your Nursing Programme.** Question 17 (Q17) was "About which of the three different religious death rituals have you learnt in your current nursing programme?"

A separate section sought information regarding Christianity (17.1), Islam (17.2), and Hinduism (17.3). Table P-3 presented the knowledge and cultural awareness scores of nursing students with regard learning about Islam within their current nursing programme (Q17.2).

**Inferential Statistics.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they had learnt about Islamic religious death rituals within their current nursing programme and outside of their current nursing programme. Hypotheses were:

- $H_0$  17(a): There is no statistically significant difference between knowledge of nursing students who learnt about the religious death rituals of Islam in their current nursing programme and those who hadn't learnt in their current nursing programme.

- **H<sub>0</sub> 17(b):** There is no statistically significant difference between cultural awareness of nursing students who learnt about the religious death rituals of Islam in their current nursing programme and those who hadn't learnt in their current nursing programme.

**Table P- 3**

*Islam Learnt Within Current Nursing Programme: Descriptive Statistics*

<b>Islam Learnt Within Current Nursing Programme: Group Statistics</b>					
	Q17.2 Learnt About		Mean	Std. Deviation	Std. Error Mean
	Islam	N			
<b>Knowledge</b>	No	331	6.00	3.766	.207
	Yes	79	6.85	3.803	.428
<b>General Experience</b>	No	330	4.7418	1.02778	.05658
	Yes	79	4.8466	1.04170	.11720
<b>General Awareness/Attitude</b>	No	331	4.6679	1.09182	.06001
	Yes	79	4.7574	1.08063	.12158
<b>Nursing Classes and Clinical instruction</b>	No	330	5.1144	.84416	.04647
	Yes	79	5.3196	.95084	.10698
<b>Clinical Practice</b>	No	330	5.8590	.71636	.03943
	Yes	79	5.8901	.68975	.07760

**Knowledge: Islam.** As shown in Table P-4, independent sample t-tests were conducted to compare knowledge of nursing students who students who had studied within their current nursing programme and outside their current nursing programme. Homogeneity of variance was checked using Levene's test, which was not significant at 0.05 level. No statistically significant difference was indicated between students who studied within their current nursing programme and outside their current nursing programme. Therefore, the null hypothesis was accepted. Therefore, it was concluded that there existed no statistical difference between knowledge of nursing students who learnt about religious death rituals of Islam in their current nursing programme and those who haven't learnt in their current nursing programme.

**Cultural Awareness: Islam.** As shown in Table P-4, independent sample t-tests were conducted to compare cultural awareness of nursing students who studied within their current nursing programme and outside their current nursing programme. Homogeneity of variance was checked using Levene's test, which is significant at  $p < 0.005$ . No statistically significant difference was indicated between students who studied within their current nursing programme and outside their current nursing programme. Therefore, the hypothesis that there existed no

statistical difference between cultural awareness of nursing students who learnt about religious death rituals of Islam in their current nursing programme and those who hadn't learnt in their current nursing programme was accepted.

**Table P- 4**

*Islam Learnt Within Current Nursing Program: Independent Sample T-tests*

Independent Samples Test											
		t-test for Equality of Means									
		Levene's Test for Equality of Variances		Significance						95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
<b>Knowledge</b>	Equal variances assumed	0.314	0.576	-1.789	408	0.037	0.074	-0.845	0.472	-1.774	0.084
	Equal variances not assumed			-1.778	117.269	0.039	0.078	-0.845	0.475	-1.786	0.096
<b>General Experience</b>	Equal variances assumed	0.014	0.907	-0.812	407	0.209	0.417	-0.10484	0.12907	-0.35857	0.14888
	Equal variances not assumed			-0.806	117.082	0.211	0.422	-0.10484	0.13014	-0.36258	0.1529
<b>General Awareness/ Attitude</b>	Equal variances assumed	0.116	0.733	-0.656	408	0.256	0.512	-0.08946	0.13645	-0.35769	0.17877
	Equal variances not assumed			-0.66	118.968	0.255	0.511	-0.08946	0.13558	-0.35793	0.17901
<b>Nursing Classes and Clinical Instruction</b>	Equal variances assumed	0.044	0.835	-1.893	407	0.03	0.059	-0.20519	0.10842	-0.41833	0.00795
	Equal variances not assumed			-1.759	109.29	0.041	0.081	-0.20519	0.11663	-0.43635	0.02597
<b>Clinical Practice</b>	Equal variances assumed	0.5	0.48	-0.35	407	0.363	0.727	-0.03117	0.0891	-0.20632	0.14398
	Equal variances not assumed			-0.358	121.562	0.36	0.721	-0.03117	0.08705	-0.20349	0.14116

### **Descriptive Statistics: Study Within Your Nursing Programme. Question 17 (Q17)**

was "About which of the three different religious death rituals have you learnt in your current nursing programme?"

A separate section sought information regarding each of the three religions: Christianity (17.1), Islam (17.2), and Hinduism (17.3). Table P-5 presented the knowledge and

cultural awareness scores of nursing students with regard to the Hindu religion (Q17.3). Table P-6 presented the related Independent Samples Test.

**Table P- 5**

*Hinduism Learnt Within Current Nursing Program: Descriptive Statistics*

<b>Hinduism Learnt Within Current Nursing Programme: Group Statistics</b>					
	Q17.3 Learnt About Hinduism	N	Mean	Std. Deviation	Std. Error Mean
<b>Knowledge</b>	No	361	6.13	3.799	.200
	Yes	47	6.53	3.682	.537
<b>General Experience</b>	No	360	4.7151	1.02594	.05407
	Yes	47	5.1464	1.00416	.14647
<b>General Awareness/Attitude</b>	No	361	4.6514	1.07941	.05681
	Yes	47	4.9734	1.12558	.16418
<b>Nursing Classes and Clinical Instruction</b>	No	360	5.1102	.83919	.04423
	Yes	47	5.5149	1.00737	.14694
<b>Clinical Practice</b>	No	360	5.8624	.70917	.03738
	Yes	47	5.8670	.72350	.10553

**Inferential Statistics.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they had learnt about Hindu religious death rituals within their current nursing programme and outside of their current nursing programme. Hypotheses were:

- **H<sub>0</sub> 17(a):** There is no statistically significant difference between knowledge of nursing students who learnt about Hindu religious death rituals in their current nursing programme and those who hadn't learnt in their current nursing programme
- **H<sub>0</sub> 17(b):** There is no statistically significant difference between cultural awareness of nursing students who learnt about Hindu religious death rituals in their current nursing programme and those who hadn't learnt in their current nursing programme.

**Table P- 6**

*Hinduism Learnt Within Current Nursing Programme: Independent Sample T-tests*

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
<b>Knowledge</b>	Equal variances assumed	0.009	0.923	-0.684	406	0.247	0.494	-0.402	0.587	-1.556	0.753
	Equal variances not assumed			-0.701	59.49	0.243	0.486	-0.402	0.573	-1.548	0.745
<b>General Experience</b>	Equal variances assumed	0.096	0.757	-2.717	405	0.003	0.007	-0.43134	0.15874	-0.7434	-0.11929
	Equal variances not assumed			-2.763	59.251	0.004	0.008	-0.43134	0.15613	-0.74374	-0.11895
<b>General Awareness/Attitude</b>	Equal variances assumed	0.008	0.93	-1.914	406	0.028	0.056	-0.32197	0.16821	-0.65265	0.0087
	Equal variances not assumed			-1.853	57.569	0.034	0.069	-0.32197	0.17373	-0.6698	0.02585
<b>Nursing Classes and Clinical Instruction</b>	Equal variances assumed	0.401	0.527	-3.034	405	0.001	0.003	-0.40471	0.13337	-0.6669	-0.14252
	Equal variances not assumed			-2.637	54.656	0.005	0.011	-0.40471	0.15345	-0.71228	-0.09714
<b>Clinical Practice</b>	Equal variances assumed	0.062	0.803	-0.042	405	0.483	0.967	-0.00463	0.11024	-0.22135	0.21209
	Equal variances not assumed			-0.041	58.147	0.484	0.967	-0.00463	0.11196	-0.22872	0.21947

**Knowledge: Hinduism.** Independent sample t-tests (Table P-6) were conducted to compare knowledge of nursing students who had studied within their current nursing programme and outside their current nursing programme. Homogeneity of variance was checked using Levene's test, which was not significant at 0.05 level. No statistically significant difference was indicated between students who studied within their current nursing programme and outside their current nursing programme. Therefore, the hypothesis was accepted, there existed no statistical difference between knowledge of nursing students who learnt about religious death rituals of Hinduism in their current nursing programme and those who hadn't learnt in their current nursing programme.

**Cultural Awareness: Hinduism.** As shown in Table P-6, independent sample t-tests were conducted to compare cultural awareness of nursing students who studied within their

current nursing programme and outside their current nursing programme. Homogeneity of variance was checked using Levene's test, which was significant at  $p \leq 0.005$ . No statistically significant difference was indicated between students who studied within their current nursing programme and outside their current nursing programme on the cultural awareness sub-scales (general experience, general awareness and attitude, and clinical practice). There was a statistically significant difference noted in subscale nursing classes and clinical instruction. Therefore, the hypothesis was partially accepted and partially rejected. There existed no statistical difference between cultural awareness (general experience, general awareness and attitude, and clinical practice) of nursing students who learnt about Hindu religious death rituals in their current nursing programme and those who hadn't learnt in their current nursing programme.

## Appendix Q: Q19-20 Statistics

**Descriptive Statistics: Nursing Programme and Knowledge.** Question 19 (Q19) was "Do you feel your nursing programme to date has helped you gaining the knowledge you feel you need to support dying patients from different religious groupings?" Table Q-1 presented the scores of nursing students who responded to Question 19.

**Table Q- 1**

*Did Nursing Programme Provide Sufficient Knowledge: Descriptive Statistics*

Descriptors									
		N	Mean	Standard Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Knowledge	Not at all	184	6.15	3.761	0.277	5.6	6.69	0	17
	Somewhat	196	6.07	3.852	0.275	5.53	6.61	0	17
	Very well	33	6.42	3.674	0.64	5.12	7.73	1	16
	Total	413	6.13	3.79	0.186	5.77	6.5	0	17
General Experience	Not at all	184	4.457	1.05725	0.07794	4.3032	4.6108	1.29	6.71
	Somewhat	195	4.9166	0.92166	0.066	4.7864	5.0468	2.43	7
	Very well	33	5.4841	0.99815	0.17376	5.1302	5.8381	2.57	7
	Total	412	4.7568	1.03492	0.05099	4.6566	4.857	1.29	7
General Awareness/ Attitude	Not at all	184	4.5453	1.1118	0.08196	4.3836	4.707	1	7
	Somewhat	196	4.8048	1.05787	0.07556	4.6558	4.9539	1.75	7
	Very well	33	4.798	1.05266	0.18324	4.4247	5.1712	2.5	6.5
	Total	413	4.6887	1.08689	0.05348	4.5835	4.7938	1	7
Nursing Classes and Clinical Instruction	Not at all	183	4.9118	0.89531	0.06618	4.7812	5.0423	1	6.75
	Somewhat	196	5.318	0.79797	0.057	5.2056	5.4304	2.25	7
	Very well	33	5.5742	0.72887	0.12688	5.3158	5.8327	3.5	7
	Total	412	5.1581	0.86692	0.04271	5.0741	5.2421	1	7
Clinical Practice	Not at all	183	5.8345	0.67455	0.04986	5.7361	5.9329	3.5	7
	Somewhat	196	5.8635	0.72449	0.05175	5.7615	5.9656	3.63	7
	Very well	33	5.9915	0.84675	0.1474	5.6913	6.2918	4.25	7
	Total	412	5.8609	0.71276	0.03512	5.7919	5.9299	3.5	7

**Inferential Statistics.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they felt that their nursing programme had helped them gain knowledge of different religious groups. Hypotheses were:

- **H<sub>0</sub> 19(a):** There existed no statistically significant difference between knowledge of nursing students who felt their nursing programme had helped very well and those that felt the programme had not at all helped in gaining knowledge of different religious groups.



$H_0$  19(b): There existed no statistically significant difference between cultural awareness of nursing students who felt their nursing programme had helped very well and those that felt the programme had not at all helped in gaining knowledge of different religious groups.

**Analysis of Variance, Whether the Nursing Programme Provided Knowledge of Different Religious Groups.** A one-way analysis of variance was conducted to explore whether the nursing students felt their programme of study helped them gain knowledge of different religious groups (Table Q-2).

**Table Q- 2**

*Whether the Nursing Programme Provided Knowledge: Analysis of Variance (ANOVA)*

		<b>ANOVA</b>				
		Sum of Squares	df	Mean Square	F	Sig.
<b>Knowledge</b>	Between Groups	3.577	2	1.788	.124	.883
	Within Groups	5914.099	410	14.425		
	<b>Total</b>	<b>5917.676</b>	<b>412</b>			
<b>General Experience</b>	Between Groups	38.975	2	19.487	19.865	<.001
	Within Groups	401.229	409	.981		
	<b>Total</b>	<b>440.204</b>	<b>411</b>			
<b>General Awareness/Attitude</b>	Between Groups	6.822	2	3.411	2.914	.055
	Within Groups	479.888	410	1.170		
	<b>Total</b>	<b>486.710</b>	<b>412</b>			
<b>Nursing Classes and Clinical instruction</b>	Between Groups	21.833	2	10.917	15.554	<.001
	Within Groups	287.056	409	.702		
	<b>Total</b>	<b>308.889</b>	<b>411</b>			
<b>Clinical Practice</b>	Between Groups	.692	2	.346	.680	.507
	Within Groups	208.108	409	.509		
	<b>Total</b>	<b>208.800</b>	<b>411</b>			

**Knowledge: Religious Groups.** As shown in Table Q-2, a one-way analysis of variance was conducted to explore whether nursing students felt their nursing programme had or had not helped them gain knowledge of different religious groups and frequency of care. A

one-way ANOVA indicated that there was no statistically significant difference. This signified that there was no significant difference between students who felt their nursing programme had helped and those who felt it had not helped in gaining knowledge to support dying patients from different religious backgrounds. Hence the hypothesis was accepted: There existed no statistical difference between knowledge of nursing students who feel their nursing programme had helped very well and their nursing programme had not at all helped in gaining knowledge of different religious groups.

**Cultural Awareness: Religious Groups.** As shown in Table Q-2, a one-way analysis of variance was conducted to explore whether nursing students felt their nursing programme had or had not helped them gain knowledge of different religious groups. A one-way ANOVA indicated that there was statistically significant difference in general experience:  $f(411) = 19.86$   $P < .001$  and there was statistically significant difference on the nursing classes and clinical instruction subscale  $f(411) = 15.55$ ,  $p < .001$ . However, there was no significant statistical difference in the subscale general awareness/attitude and clinical practice. This signified that there was a significant difference between students who felt their nursing programme had helped and those who felt it did not help in gaining knowledge to support dying patients from different religious backgrounds in two subscales.

Hence the hypothesis was partially rejected: There existed no statistical difference between cultural awareness of nursing students who felt their nursing programme had helped very well and those who felt their nursing programme had not at all helped in gaining knowledge of different religious groups. However, it was concluded that there existed a statistical difference between cultural awareness of nursing students who felt that their nursing programme had helped very well and those that felt their nursing programme had not at all helped in gaining knowledge of different religious groups.

**Descriptive Statistics: Clinical Placements and Knowledge.** Question 20 (Q20) was "Do you feel your clinical placements to date have helped you gain the knowledge you feel you need to support dying patients from different religious groupings?"

Nursing students were asked if clinical placements to date had helped them gain knowledge of religious death rituals. The mean score of students who answered that clinical practice did help them very much (6.49) was high. Similarly, in the cultural awareness subscales, students responded that clinical placements helped them somewhat to very well. Table Q-3 presented the descriptive statistics in this context.

**Table Q- 3**

*Clinical Placements and Knowledge: Descriptive Statistics*

Descriptors									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Knowledge	Not at all	160	5.86	3.789	.300	5.27	6.45	0	17
	Somewhat	210	6.27	3.836	.265	5.74	6.79	0	17
	Very well	43	6.49	3.582	.546	5.39	7.59	1	14
	Total	413	6.13	3.790	.186	5.77	6.50	0	17
General Experience	Not at all	160	4.5424	1.09118	.08626	4.3720	4.7127	1.29	6.71
	Somewhat	209	4.7818	.95078	.06577	4.6522	4.9115	2.29	7.00
	Very well	43	5.4330	.92207	.14061	5.1492	5.7168	3.43	7.00
	Total	412	4.7568	1.03492	.05099	4.6566	4.8570	1.29	7.00
General Awareness /Attitude	Not at all	160	4.6255	1.17324	.09275	4.4423	4.8087	1.00	7.00
	Somewhat	210	4.7504	1.00400	.06928	4.6138	4.8870	1.75	7.00
	Very well	43	4.6221	1.15002	.17538	4.2682	4.9760	1.75	6.50
	Total	413	4.6887	1.08689	.05348	4.5835	4.7938	1.00	7.00
Nursing Classes and Clinical Instruction	Not at all	159	4.9382	.92323	.07322	4.7936	5.0828	1.00	6.75
	Somewhat	210	5.2229	.80632	.05564	5.1132	5.3326	2.25	7.00
	Very well	43	5.6550	.67516	.10296	5.4472	5.8628	3.88	7.00
	Total	412	5.1581	.86692	.04271	5.0741	5.2421	1.00	7.00
Clinical Practice	Not at all	159	5.8686	.65519	.05196	5.7660	5.9712	3.75	7.00
	Somewhat	210	5.8135	.72286	.04988	5.7151	5.9118	3.50	7.00
	Very well	43	6.0640	.83825	.12783	5.8060	6.3219	3.75	7.00
	Total	412	5.8609	.71276	.03512	5.7919	5.9299	3.50	7.00

**Inferential Statistics.** This exercise checked the relationship between nursing student knowledge and cultural awareness as it related to whether or not they felt clinical placements had helped them gain knowledge of different religious groups.

**Table Q- 4***Whether Clinical Placements Provided Knowledge: Analysis of Variance (ANOVA)*

		<b>ANOVA</b>				
		Sum of Squares	df	Mean Square	F	Sig.
<b>Knowledge</b>	Between Groups	20.89	2	10.445	0.726	0.484
	Within Groups	5896.786	410	14.382		
	<b>Total</b>	<b>5917.676</b>	<b>412</b>			
<b>General Experience</b>	Between Groups	27.15	2	13.575	13.442	<.001
	Within Groups	413.054	409	1.01		
	<b>Total</b>	<b>440.204</b>	<b>411</b>			
<b>General Awareness/ Attitude</b>	Between Groups	1.629	2	0.814	0.688	0.503
	Within Groups	485.081	410	1.183		
	<b>Total</b>	<b>486.71</b>	<b>412</b>			
<b>Nursing Classes and Clinical instruction</b>	Between Groups	19.19	2	9.595	13.546	<.001
	Within Groups	289.699	409	0.708		
	<b>Total</b>	<b>308.889</b>	<b>411</b>			
<b>Clinical Practice</b>	Between Groups	2.255	2	1.127	2.232	0.109
	Within Groups	206.545	409	0.505		
	<b>Total</b>	<b>208.8</b>	<b>411</b>			

Hypotheses were answered as follows:

- **H<sub>0</sub> 20(a):** There existed no statistically significant difference between knowledge of nursing students who felt clinical placements had helped very well and clinical placements did not help in gaining knowledge of different religious groups.
- **H<sub>0</sub> 20(b):** There existed no statistically significant difference between the cultural awareness of nursing students who felt clinical placements has helped very well and clinical placements has not at all helped in gaining knowledge of different religious groups.

**Analysis of Variance: Whether Clinical Placements Provided Knowledge.** As shown in Table Q-4, a one-way analysis of variance was conducted to explore whether the nursing students felt their clinical placements helped them gain knowledge of different religious groups.

**Knowledge: Clinical Placements.** As shown in Table Q-4, a one-way analysis of variance was conducted to explore the effects of knowledge of nursing students who felt that clinical placements had helped very well and those who felt clinical placements had not at all helped in gaining knowledge of different religious groups. A one-way ANOVA indicated that there was no statistically significant difference. This signified that there was no significant difference between students who felt clinical placements had helped and those who felt it did not help them gain knowledge to support dying patients from different religious backgrounds. Hence the hypothesis was accepted that there existed no statistical difference between knowledge of nursing students who felt that clinical placements had helped very well and clinical placements had not at all helped in gaining knowledge of different religious groups.

**Cultural Awareness: Clinical Placements.** As shown in Table Q-4, a one-way analysis of variance was conducted to explore the effect cultural awareness of nursing students who felt that clinical placements had or had not helped them gain knowledge of different religious groups. A one-way ANOVA indicated that there was a statistically significant difference in the general experience and nursing classes and clinical instruction subscales. There was no significant statistical difference in the subscale general awareness/attitude and clinical practice.

This signified that there was a significant difference between students who felt clinical placement has helped and those who felt it did not help in gaining knowledge to support dying patients from different religious backgrounds, in two subscales. Hence the hypothesis was partially rejected: There existed no statistical difference between cultural awareness of nursing students who felt that clinical placements had helped very well and clinical placements had not at all helped in gaining knowledge of different religious groups.

## Appendix R: Frequency of Multiple-Choice Responses on the KQ

**Table R- 1**

*Frequency of Multiple-Choice Responses to Each Option on the KQ*

<b>Frequency of Multiple-Choice Responses to Each Option on the KQ</b>					
<b>(KQ1) Q21 A person is rushed to the hospital following a road traffic accident. The person is unconscious and death is imminent for the person. The nurses looking after the person should ask the family members which of the following questions regarding the person's religious wishes?</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Is there anything that you would like to tell us about the person's religion?	22	5.3	5.3	5.3
	Do you want us to call the hospital chaplain to cater for your religious needs?	24	5.8	5.8	11.1
	Is there anything that you would like us to know about the persons wishes for the religious care?	327	79.0	79.0	90.1
	I don't know	41	9.9	9.9	100.0
	Total	414	100.0	100.0	

**(KQ2) Q22**



**What message does this symbol communicate to nursing staff and visitors in a hospital setting?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	That the person is Not for Resuscitation (NFR)	6	1.4	1.4	1.4
	That the person belongs to a specific religion	41	9.9	9.9	11.4
	That the person is imminently dying or has died	228	55.1	55.1	66.4
	I don't know	139	33.6	33.6	100.0
	Total	414	100.0	100.0	

Frequency of Multiple-Choice Responses to Each Option on the KQ					
(KQ3) Q23 A person in the end stages of life is identified as a Christian; the nurse providing end-of-life care is aware that:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Christians of different denominations have the same practices and beliefs	18	4.3	4.3	4.3
	Christians of different denominations have the different practices and beliefs	175	42.3	42.3	46.6
	Christians of different denominations have the same beliefs but different practices	84	20.3	20.3	66.9
	I don't know	137	33.1	33.1	100.0
	Total	414	100.0	100.0	
(KQ4) Q24 A Roman Catholic family who just experienced the death of their relative believe that the soul of the dead person could reside in a temporal state for those requiring purification is known as:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Purgatory	255	61.6	61.6	61.6
	Hell	4	1.0	1.0	62.6
	Heaven	60	14.5	14.5	77.1
	I don't know	95	22.9	22.9	100.0
	Total	414	100.0	100.0	
(KQ5) Q25 A person in the end stage of life in a hospital setting belonging to a protestant denomination would prefer their pastoral visit to:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sing hymns at the bedside	10	2.4	2.4	2.4
	Offer prayers at bedside	96	23.2	23.2	25.6
	Provide Sacrament of the dying at the bedside	88	21.3	21.3	46.9
	I don't know	220	53.1	53.1	100.0
	Total	414	100.0	100.0	
(KQ6) Q26 In case of death to a Roman Catholic person in the hospital, the nurses should contact the priest or chaplain to administer a specific sacrament called:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sacrament of Eucharist	110	26.6	26.6	26.6
	Sacramental of Viaticum	97	23.4	23.4	50.0
	Sacrament of Confirmation	11	2.7	2.7	52.7
	I don't know	196	47.3	47.3	100.0
	Total	414	100.0	100.0	

Frequency of Multiple-Choice Responses to Each Option on the KQ					
(KQ7) Q27 In case of death to a Roman Catholic person in the hospital, the nurses should contact the priest or chaplain to administer a specific sacrament called:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undertake normal washing of the dead body by nurses	183	44.2	44.2	44.2
	Undertake washing of only specific parts of the body by nurses	15	3.6	3.6	47.8
	Undertake only touching of the dead body	8	1.9	1.9	49.8
	I don't know	208	50.2	50.2	100.0
	Total	414	100.0	100.0	
(KQ8) Q28 The common symbol chosen by Roman Catholic Christian as part of their death ritual in the hospital setting is:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Plain cross	77	18.6	18.6	18.6
	Crucifix	179	43.2	43.2	61.8
	Does not use religious symbols or icons	5	1.2	1.2	63.0
	I don't know	153	37.0	37.0	100.0
	Total	414	100.0	100.0	
(KQ9) Q29 The common symbol chosen by Christians such as Church of Ireland, Evangelical church, Orthodox Christian, Methodist, Baptist, Lutheran and Presbyterian and Pentecostal Christian denominations as part of their death ritual in the hospital setting is:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Plain cross	113	27.3	27.3	27.3
	Crucifix	55	13.3	13.3	40.6
	Does not use religious symbols or icons	21	5.1	5.1	45.7
	I don't know	225	54.3	54.3	100.0
	Total	414	100.0	100.0	



Frequency of Multiple-Choice Responses to Each Option on the KQ					
<b>(KQ10) Q30 The common symbol chosen by people belonging to Christian denominations such as Latter-Day-Saints, First Church of Christ, Scientist (also known as Christian Science), Jehovah's Witnesses, Seventh-day Adventist Church as part of their death ritual in</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Plain cross	31	7.5	7.5	7.5
	Crucifix	29	7.0	7.0	14.5
	Does not use religious symbols or icons	47	11.4	11.4	25.8
	I don't know	307	74.2	74.2	100.0
	Total	414	100.0	100.0	
<b>(KQ11) Q31 The nurse caring for a Hindu person notices the person wearing sacred items like sacred threads or tulsī beads around the neck. If it is necessary to remove the beads for any reason, family wishes that nurses retie the beads or threads to person's:</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wrist (preferably left)	10	2.4	2.4	2.4
	Wrist (preferably right)	24	5.8	5.8	8.2
	Ankle (preferably right)	16	3.9	3.9	12.1
	I don't know	364	87.9	87.9	100.0
	Total	414	100.0	100.0	
<b>(KQ12) Q32 A female person from India belonging to Hindu religion in the end stages of life, would prefer the important healthcare decisions be made by:</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The person herself	9	2.2	2.2	2.2
	Senior member of person's family	109	26.3	26.3	28.5
	Relatives of the person	20	4.8	4.8	33.3
	I don't know	276	66.7	66.7	100.0
	Total	414	100.0	100.0	

Frequency of Multiple-Choice Responses to Each Option on the KQ					
(KQ13) Q33 A person who is of a Hindu religion, dies in the hospital and the family are conducting the customary preparation but are not immediately available, what is the action the nurse should take?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wait for instructions from the Hindu priest	23	5.6	5.6	5.6
	Perform essential tasks only (such as removing tubes and cleaning excretions)	69	16.7	16.7	22.2
	Do not touch the body	26	6.3	6.3	28.5
	I don't know	296	71.5	71.5	100.0
	Total	414	100.0	100.0	
(KQ14) Q34 A Hindu person in the last stages of life believes in particular religious rituals in preparing for death. One of the rituals involves family providing:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Holy water from river Tapi	4	1.0	1.0	1.0
	Holy water from river Ganges	44	10.6	10.6	11.6
	Holy waters from river Brahmaputra	2	.5	.5	12.1
	I don't know	364	87.9	87.9	100.0
	Total	414	100.0	100.0	
(KQ15) Q35 A dying person practising Hindu religion believes that after they die, there is:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rebirth of the soul	135	32.6	32.6	32.6
	Rebirth of the body	7	1.7	1.7	34.3
	Rebirth of soul in the same body	9	2.2	2.2	36.5
	I don't know	263	63.5	63.5	100.0
	Total	414	100.0	100.0	
(KQ16) Q36 The Hindu person believes in the cycle of:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Life, death and reincarnation	131	31.6	31.6	31.6
	Birth, life and death	5	1.2	1.2	32.9
	reincarnation, life and death	21	5.1	5.1	37.9
	I don't know	257	62.1	62.1	100.0
	Total	414	100.0	100.0	

Frequency of Multiple-Choice Responses to Each Option on the KQ					
(KQ17) Q37 A dying person who is identified as Muslim by the family believes:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A person will go to mecca upon death	30	7.2	7.2	7.2
	A person will meet prophet Mohammed right after death	66	15.9	15.9	23.2
	A person will go to heaven only if a person has been good	42	10.1	10.1	33.3
	I don't know	276	66.7	66.7	100.0
	Total	414	100.0	100.0	
(KQ18) Q38 Death is imminent for a female person who is Muslim. The family visiting the person would appreciate the nurses to do the following:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Turn the person on their back with the feet in the north easterly direction	51	12.3	12.3	12.3
	Call the Imam to come to bedside	53	12.8	12.8	25.1
	Call the priest to come to bedside	5	1.2	1.2	26.3
	I don't know	305	73.7	73.7	100.0
	Total	414	100.0	100.0	
(KQ19) Q39 A Muslim person in the last stages of life receives Islamic death rites, and one of these rites include:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Assisting the person to recite a declaration of faith	30	7.2	7.2	7.2
	Assisting the person with ablutions	23	5.6	5.6	12.8
	Assisting the person to receive sacrament of the dying	18	4.3	4.3	17.1
	I don't know	343	82.9	82.9	100.0
	Total	414	100.0	100.0	

Frequency of Multiple-Choice Responses to Each Option on the KQ					
(KQ20) Q40 A Muslim person whose death is imminent wishes to be turned towards facing Mecca. In Ireland, it is turning towards:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	South east	65	15.7	15.7	15.7
	North east	43	10.4	10.4	26.1
	South west	9	2.2	2.2	28.3
	I don't know	297	71.7	71.7	100.0
	Total	414	100.0	100.0	
(KQ21) Q41 A Muslim person whose death is imminent wishes to be turned towards facing Mecca. In Ireland, it is turning towards:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undertake the normal washing of the dead body	15	3.6	3.6	3.6
	Not to undertake the normal washing of the dead body	61	14.7	14.7	18.4
	Undertake the normal dressing of the deceased	8	1.9	1.9	20.3
	I don't know	330	79.7	79.7	100.0
	Total	414	100.0	100.0	
(KQ22) Q42 A female Muslim person dies in the hospital. The family of the person would appreciate the nurses providing essential care to be:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The same gender as the person died	180	43.5	43.5	43.5
	Different gender to the person died	2	.5	.5	44.0
	Gender doesn't matter	3	.7	.7	44.7
	I don't know	229	55.3	55.3	100.0
	Total	414	100.0	100.0	