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A survey of clinical nursing skills in intellectual disability nursing

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Abstract In this study the question asked is: what clinical nursing skills are predominantly used in intellectual disability nursing? A survey of the nursing needs of people with moderate to severe intellectual disability in both residential and community units was undertaken with a questionnaire. The measure was a Likert design scale ranging across: skills used more than once a day, skills used daily, skills used weekly, skills used monthly, skills very rarely used, and skills never used. The results of the study help to identify, plan, and direct the type and level of nursing skills taught to the intellectual disability nursing students and provides an insight into the current nursing skills used in the intellectual disabilities field.

Keywords clinical skills; intellectual disability; Ireland; nursing; student nurse; survey

Introduction

In Ireland, the move of nursing schools and training programmes from hospitals and healthcare settings into university settings occurred in 2002. In order to provide the intellectual disability degree nursing programme with the most up-to-date information on nursing practice, it is essential that regular information flows from practice into the university. In this study the question asked is: what clinical nursing skills are predominantly used in intellectual disability nursing? The answer gives intellectual disability services and the university nursing curriculum the relevant information required to modify clinical skills training for intellectual disability nursing students.

In intellectual disability nursing, it is possible to identify specific core skills with the view to improve nurse practice development and the nursing education curriculum. Greenberger (2005) found that clinical coursework in nursing schools should provide the student with the core nursing skills necessary to function safely and competently in a variety of clinical



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settings, and opportunities to practise the skills should improve competency levels. Tait and Turner (2001) suggest that intellectual disability nurses need to adapt their skills to meet the changing circumstances within an intellectual disability field and other developing challenges of the future. Parrish (2002) argued that intellectual disability nurses are anticipators, that is they anticipate the client's needs, which is a key nursing skill to meet such challenges.

A number of studies have outlined difficulties in the area of clinical nursing skills. Astin (2005) found that registered nurses' expectations of student nurses' clinical skills and knowledge were not consistently met. Couvillon (2005) argued that to promote and implement evidenced-based practice in a clinical setting, the nurse needs to know what clinical nursing skills to have and use. Faugier (2005) argued that a skills debate is anything but straightforward: nurses may be encouraged to become more specialized in certain skilled areas, and then blamed for neglecting the basics of nursing. A study by Bornman (2002) found that community nurses regarded their knowledge and skills in dealing with children with severe disabilities and their caregivers as inadequate, despite the fact that they were exposed to them and were expected to provide services for them. In this case nurses identified a need for knowledge and skills training in regard to the care of children with severe disabilities.

Findings suggest that registered nurses and academics differ in their perceptions of the level of clinical skills that nursing students have achieved during a clinical placement. There appeared to be a gap between the skills taught to nursing students in university and the skills necessary for the students once they entered the clinical setting. A key factor that contributes to the success of client care is a systematic approach to practice development in valuing the core skills used in nursing. In order to address this gap and provide an evidence base for nursing skills taught in intellectual disability nursing, there is a need to identify the types and levels of nursing skills used in the intellectual disability field.

Research method

The aim of the study was to provide a baseline of clinical nursing skills used in intellectual disability nursing. The objectives were to determine the types and levels of clinical nursing skills used in intellectual disability nursing. A survey of residential and community units in two intellectual disability services was undertaken with a questionnaire using a nursing skills list from *The Royal Marsden Hospital Manual of Clinical Nursing Procedures* (Mallett and Dougherty, 2000). The questions identified 51 individual skill categories, and a final open-ended question allowed for the inclusion of

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other skills that might not have been identified. The level of skill usage was measured by a Likert design scale ranging across: skills used more than once a day, skills used daily, skills used weekly, skills used monthly, skills very rarely used, and skills never used.

In collaboration with the two intellectual disability services that were in partnership with the university intellectual disability nursing programme, permission and ethical approval were sought to carry out the survey. A project team was developed with membership in each service to support the project. The project team members were clinical placement coordinators, a nursing role used as part of the nursing degree in Ireland. Each clinical placement coordinator supported the development and administration of the questionnaire within each service. The reliability and validity of the questionnaire were tested by a pilot study in two units, one unit in each service, and reviewed by the project team. Over a 2 week period, 26 surveys were completed. All the data from the questionnaires were downloaded into a computer format and a descriptive statistical analysis package using two statistical features, frequency and dispersion, was employed in analysing and obtaining the results.

Findings

Over a 2 week period, 26 questionnaires were completed, 18 from a residential setting and eight from a community living setting. The number of people within each unit ranged from 10 to 20. The level of intellectual disability was mainly from moderate to severe, with two units recorded as having people with a mild intellectual disability. The findings were divided into the six categories used in the Likert design scale together with the open-ended question at the end of the questionnaire.

Skills used more than once a day

The clinical skills used more than once a day identify the high level of basic nursing care that people with intellectual disability require throughout a day. The percentages of personal hygiene (46%), drug administration (38%), mouth care (34%), manual handling (34%) and nutritional support (30%) are an indication of the daily workload within intellectual disability nursing. The 16 other skills below 30 percent show the varied nature of clinical nursing skills required and frequently used in the intellectual disability nursing field (Table 1).

Skills used daily

The nursing skills identified as being used on a daily basis underline the extensive range of skills required in intellectual disability nursing. The

Table 1 Skills used more than once a day

| <i>Skills used more than once a day</i> | <i>% nursing skill used more than once a day n = 26 (18 residential, 8 community units)</i> |
|---|---|
| Personal hygiene | 46% |
| Drug administration | 38% |
| Mouth care | 34% |
| Manual handling | 34% |
| Nutritional support | 30% |
| Observations: others | 23% |
| Assessment, communication and consent | 19% |
| Bowel care | 19% |
| Observations: TPR | 15% |
| Respiratory therapy | 15% |
| Neurological observations | 11% |
| Stoma care | 11% |
| Aseptic technique | 7% |
| Eye care | 7% |
| Infusion devices | 7% |
| Observations: BP | 7% |
| Observations: blood glucose | 7% |
| Pain assessment | 7% |
| Violence prevention and management | 7% |
| Wound management | 7% |
| Other clinical nursing procedures | 7% |

majority of these skills are core nursing skills required for everyday nursing. Half of respondents used personal hygiene, mouth care, assessment, communication and consent, drug administration, nutritional support, and violence prevention and management as daily nursing skills. A further 30 to 46 percent of respondents used skills in bowel care, eye care, manual handling, pain assessment, and blood glucose observations daily. Another 18 skills were recorded as in use on a daily basis, notably observational skills of temperature, pulse respiration, blood pressure, and urinalysis (Table 2). It is clear that many of the daily skills are required to be used more than once a day, appearing in the lists of both clinical skills used more than once a day (Table 1) and skills used daily (Table 2).

Skills used weekly

The percentage and range of skills used weekly suggests that a certain number of people with intellectual disability have chronic health needs that require complex medical nursing skills. Of the respondents, 42 percent provided transfusion of blood, blood products and blood substitutes and 23 percent provided tracheotomy care and spinal chord compression

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Table 2 Skills used daily

| <i>Skills used daily</i> | <i>% nursing skill used daily n = 26 (18 residential, 8 community units)</i> |
|---------------------------------------|--|
| Assessment, communication and consent | 53% |
| Drug administration | 53% |
| Nutritional support | 53% |
| Violence prevention and management | 53% |
| Mouth care | 50% |
| Personal hygiene | 50% |
| Bowel care | 46% |
| Eye care | 38% |
| Manual handling | 34% |
| Pain assessment | 34% |
| Observations: blood glucose | 30% |
| Respiratory therapy | 26% |
| Observations: others | 23% |
| Wound management | 19% |
| Aseptic technique | 15% |
| Observations: TPR | 15% |
| Observations: BP | 15% |
| Continent urinary diversions | 11% |
| Discharge planning | 11% |
| Infusion devices | 11% |
| Neurological observations | 11% |
| Observations: urinalysis | 7% |
| Specimen collection | 7% |
| Stoma care | 7% |
| Other clinical nursing procedures | 7% |

management care weekly. Skills in lumbar puncture and intrapleural drainage at 11 percent and breast aspiration at 7 percent are among the lower percentages of skills used weekly (Table 3). This suggests that a complexity of medical care needs are being met in the intellectual disability nursing setting.

Skills used monthly

The nursing skills used monthly can be classified as health surveillance nursing skills and indicate a role of health monitoring in intellectual disability nursing. Numerous observational and specimen collection skills are found here within the short range of 15 to 26 percent of nursing skills used monthly (Table 4). This result suggests the use of a primary health-care framework of health screening and health promotion in intellectual disability nursing.

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Table 3 Skills used weekly

| <i>Skills used weekly</i> | <i>% nursing skill used weekly n = 26 (18 residential, 8 community units)</i> |
|---|---|
| Transfusion of blood, blood products and blood substitutes | 42% |
| Spinal cord compression management | 23% |
| Tracheostomy care | 23% |
| Radioactive source therapy, sealed and unsealed sources | 19% |
| Peritoneal dialysis and continuous venovenous haemodiafiltration | 15% |
| Intrapleural drainage | 11% |
| Lumbar puncture | 11% |
| Peri-operative care | 11% |
| External compression and support in the management of lymphoedema | 7% |
| Breast aspiration | 7% |
| Epidural analgesia | 7% |
| Gene therapy | 7% |

Table 4 Skills used monthly

| <i>Skills used monthly</i> | <i>% nursing skill used monthly n = 26 (18 residential, 8 community units)</i> |
|------------------------------------|--|
| Haematological procedures | 26% |
| Observations: urinalysis | 26% |
| Specimen collection | 26% |
| Venopuncture | 23% |
| Observations: TPR | 15% |
| Observations: BP | 15% |
| Discharge planning | 7% |
| Urinary catheterization | 7% |
| Violence prevention and management | 7% |

Skills never or rarely used

The high percentages of never or rarely used clinical skills (88% to 100%) indicate that those skills are generally found outside the intellectual disability nursing field (Table 5). However, the nursing skills reported as never or rarely used depend on the medical needs of people with intellectual disabilities. Because the questionnaire was based on skills used in each unit as opposed to skills used with individuals, a number of skills appeared in two lists: skills used weekly (Table 3) and skills never or rarely used (Table 5).

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Table 5 Skills never or rarely used

| <i>Skills never or rarely used</i> | <i>% nursing skill never or rarely used n = 26 (18 residential, 8 community units)</i> |
|---|--|
| Breast aspiration | 100% |
| Epidural analgesia | 100% |
| Gene therapy | 100% |
| Intrapleural drainage | 100% |
| Lumbar puncture | 100% |
| Peri-operative care | 100% |
| Peritoneal dialysis and continuous venovenous haemodiafiltration | 100% |
| Radioactive source therapy, sealed and unsealed sources | 100% |
| Spinal cord compression management | 100% |
| Tracheostomy care | 100% |
| Transfusion of blood, blood products and blood substitutes | 100% |
| Entonox administration | 92% |
| External compression and support in the management of lymphoedema | 96% |
| Vascular access devices, insertion and management | 96% |
| Abdominal paracentesis | 88% |
| Bladder lavage and irrigation | 80% |
| Cytotoxic drugs | 80% |
| Scalp cooling | 80% |

Table 6 Other nursing skills

| |
|----------------------------|
| Challenging behaviour |
| IM and depot injection |
| Oxygen therapy |
| Pressure area care |
| Peg and feeding techniques |
| Epilepsy |
| Physiotherapy |
| Mental health issues |
| Palliative care |
| Care of the elderly |

Other skills identified

The final question asked for information on any other nursing skill that might not have been included in the skills listed within the questionnaire. This question elicited a range of different nursing skills and broader nursing topics (Table 6). The specific skills identified were injection technique, oxygen therapy, pressure area care, peg and feeding techniques, and skills used in dealing with challenging behaviour. The broader nursing

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topics without specific skills identified were epilepsy, mental health issues, palliative care, and care of the elderly

Limitations

There are a number of limitations to this study of the clinical nursing skills used in intellectual disability nursing, which restrict the generalizability of the findings. The main ones are that the sample size is small and the bias is towards people with severe and profound intellectual disabilities. Other limitations are found within the questionnaire. Not all skills fit neatly into the skills categories in the questionnaire, and some skills are far more complex than is suggested in the study. With the analysis based on the use of skills in each unit as opposed to the skills used with each individual client, some skills appear contradictorily as both used weekly and rarely or never used.

Discussion

This study captures a baseline picture of the nursing skills used in intellectual disability nursing at a specific point in time. It illustrates that nursing in intellectual disabilities requires a wide range of clinical skills to be taught and adopted in nurse training where basic core nursing skills underpin the care of people with intellectual disabilities. In particular, nursing skills are a keystone for the care of people with a moderate to severe level of intellectual disability. Many complex and specialized nursing skills are found and provided within intellectual disability residential and community care services. From this survey it would appear that intellectual disability nurses adopted and managed their nursing skills to meet the needs of people with intellectual disabilities in their own settings.

The skills used more than once a day and daily identify that contemporary nursing in intellectual disability is based on a requirement for basic nursing skills ranging across personal hygiene, manual handling, mouth care, nutritional support, observations, bowel care, communication and consent. Drug administration at 38 percent was a skill used more than once a day, which identified that people with moderate to severe intellectual disability have a certain reliance on the use and administration of medication. While the social care model cannot be ignored, all the skills used more than once a day and daily set a solid foundation for nursing, indicating the important medical aspect of intellectual disability nursing, and highlighting the nursing and medical needs of people with intellectual disability. Despite the fact that an ageing intellectual disability population as found in Ireland requires a high level of basic nursing care, it is important to ensure

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that nurses are competently skilled in providing care over the lifespan of people with intellectual disability (Barron and Kelly, 2006). It can be suggested that the population found in this study, i.e. people with moderate to severe intellectual disability, have an immense need for basic nursing care.

The evidence of weekly skills used in nursing may suggest that a certain number of people with intellectual disability can have a complexity of medical problems that are maintained by the development of medical treatments in intellectual disability services. There would appear to be a certain level of complex medical interventions that requires nursing skills in residential or community settings which are usually found in the acute general medical setting. This may in some way be associated with the increased use of outpatient and day hospital treatments for healthcare problems.

At 26 percent, the nursing skills used monthly are low in comparison to the daily and weekly percentages ranging from 40 to 50 percent. It could be argued that low monthly observational and monitoring skills are at a level where health needs are not identified. This would concur with a study by Barr et al. (1999) that has identified the limited health promotion and screening and the gaps in primary healthcare for people with intellectual disability. Nine years on, Davies (2008) argues that the healthcare needs of older adults with intellectual disabilities are often misinterpreted or neglected. An increase in the nursing observational and monitoring skills used monthly might alter and improve the role of health promotion for people with intellectual disability, and further research is indicated.

Skills never or rarely used are related to specific health needs and depend on the medical needs of people with intellectual disabilities, which can be realized in the intellectual disability field when required. Where it is not possible to realize treatment and the use of nursing skills in a residential or community setting, it would be appropriate to have the skills necessary to assist the intellectual disability client to manage in an unfamiliar setting.

The skill of assessment, communication and consent for a person with intellectual disability was recognized in the daily skills used in intellectual disability nursing. This highlights the often complex nature of nursing skills in intellectual disability nursing, as communication and obtaining consent can require many different approaches and can involve many different nursing skills.

Skills in the open-ended question highlighted areas of skills used in intellectual disability nursing that were not in the list of skills in the questionnaire; or, for some undisclosed reason, the respondents used this question to highlight these skills. One of the main skills listed centred on nutritional support for people with intellectual disability and specifically the use of percutaneous endoscopically guided gastrostomy ('peg feeding').

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While in the questionnaire there was a question titled 'nutritional support', it would appear that intellectual disability nurses view peg feeding and feeding people with intellectual disability as separate to nutritional support. It suggests that the area of feeding, peg feeding and nutritional support in intellectual disability nursing can be specifically important in itself. A recommendation for research in this area to explain terminology and development in nutritional support for people with intellectual disability may help to explore whether new or updated skills are needed.

Other nursing skills highlighted in the open-ended question are injection technique, mental health, palliative care, challenging behaviour, physiotherapy, oxygen therapy and care of the elderly. The majority of these skills could have been located under skills listed within the questionnaire. A lack of understanding of the terminology used in nursing skills may be a reason why the skills identified in the questionnaire list were again identified in this section. Another aspect of highlighting these skills at the end of the questionnaire may indicate the extra importance that these skills have in intellectual disability nursing and demonstrate a need for further research to explore these skills.

Conclusion

The purpose of the project was to find out what present-day nursing skills facilitate the care and support of people with intellectual disabilities. The results of the study can help to identify, plan and direct the type and level of nursing skills taught to intellectual disability nursing students within nurse training and other intellectual disability courses. The results of the study provide an insight into the current nursing practice skills used in the intellectual disability field. It will allow educationalists to develop nursing courses with an up-to-date knowledge of the skills found in nursing, which should benefit the experience of a student nurse and the care of the person with an intellectual disability.

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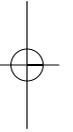
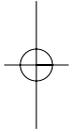
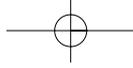
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