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The Potential of Simulation to Enhance Nursing Students' Preparation for Suicide Risk Assessment: A Review

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Abstract

Suicide risk assessment is a critical skill in preventing suicide. Yet most nurses do not feel confident in assessing suicide risk. Development of this potentially life-saving skill needs to begin at the undergraduate nursing level. As simulation is an effective pedagogical tool utilised within nursing education, the aim of this paper was to explore the potential of simulation in preparing student nurses' for suicide risk assessment. Literature was examined to identify what simulation modalities were employed within nursing education and the outcomes associated with these. The findings suggest that to varying degrees all simulation modalities have the potential to decrease student anxiety, and increase student confidence, knowledge and communication skills when working with people at risk of suicide. However the use of Standardised Patient (SP) simulation adds an authenticity to the experience and allows for the assessment of a wider range of human responses, including key nonverbal communication skills. The sense of realism provided by SP allows for more in-depth understanding into the person's experiences, which is critical in the assessment of a person's mental health needs and risk of suicide. The majority of simulations identified were located within a mental health setting. Given that student nurses may encounter a person who is suicidal in any clinical setting, further research is needed on simulation which integrates mental health assessments and suicide risk assessment into a variety of clinical areas.

Keywords

Mental Health, Student Nurses, Simulation, Suicide Risk Assessment

1. Introduction

The assessment of suicide risk is one of the most challenging tasks facing nurses

in the current health care environment. Suicide is a serious public health and social issue and the suicide rates of a country are an indication of the mental health and wellbeing of that population. According to the World Health Organisation [WHO] every 40 seconds a person in the world dies by suicide; and suicide prevention needs to be a high public health priority for all countries [1]. Among the OECD countries New Zealand has the second highest youth suicide rate, and young Maori men are disproportionately represented along with older men and rural farmers [2]. In 2016, annual suicide figures in New Zealand were the highest since colonial records began in 2006 and this followed the previous highest total recorded in 2015 [3]. Female suicide deaths also increased in 2016 and the ratio between female and male suicide rates was the closest for the first time [3]. The WHO Mental Health Plan 2013-2020 aims to reduce suicide rates in countries by 10% [4] and one key strategy identified in suicide prevention is the training of health care providers and the inclusion of suicide risk assessment within education curricula [1]. For nurses this training would begin at the undergraduate level, and the use of simulation may have a role in the development of these skills.

2. Background

Reducing the incidence of suicide begins with identifying those at risk. Following initial presentation indicating a need for a mental health triage, assessing suicide risk is one of the first steps in the triage process for front-line staff [5] [6]. According to the Ministry of Health [5] client presentation with self-harm, mental health issues or physical health and drug or alcohol toxicity can indicate potential risk, but suicidal intent may not be obvious. Initial assessment should focus on the immediate history of self-harm and suicidal thoughts, identifying urgency and level of risk; a more detailed suicide risk assessment can be arranged if necessary. Guidelines suggest that this initial assessment can take two forms: (i) a mental health assessment incorporating suicide risk assessment which takes into account not only what a person may relay to the interviewer, but also all expressive behaviour; and/or, (ii) direct questioning about suicidality [6]. Capability with both mental health assessment and suicide risk assessment prepares frontline staff to act to prevent suicide.

Nurses as the health professionals most seen at the forefront of health services are in a key position to prevent suicide; however, to enable nurses to act, nurses themselves need to feel confident in assessing for suicidal risk. Given that the majority of people who suicide have seen a health professional in the month before their death [7], it is highly likely that regardless of the health setting nurses will have to provide care for someone who is potentially suicidal. Yet nurses' report feeling unconfident and ill prepared to discuss suicide or suicidal ideation [8]. As a result people are rarely identified as being at-risk [9]. Education of nurses can support their preparation for assessing and caring for a suicidal person [9] and knowing how to identify an at-risk person and the level of risk is the first step in preventing suicide [10]. Development of these potentially life-saving

assessment skills needs to begin in undergraduate nursing education. Student nurses need to be empathetic and understanding when working with a person at risk of suicide and confident in their communication skills and suicide risk assessment skills. According to Pullen, Gilje and Tesar [11] the extent of focus on suicide risk assessment in curricula is relatively unknown. In addition, many nursing students do not have the opportunity to be actively involved in suicide risk assessments on clinical placement [12]. As a potentially life-saving skill, suicide risk assessment skills are just as critical for undergraduate nurses as knowledge regarding cardiovascular disease and associated risk factors.

Before skills can be developed, attitudes towards people at risk of suicide must be challenged. Many studies suggest health professionals, including nursing students, hold negative attitudes towards people who are suicidal [13] [14] [15] [16]. As early as the 1990's it was identified that student nurses attitudes towards caring for people who were suicidal were positively influenced by using an alternative interactive teaching strategy rather than a traditional method of teaching [14]. Reliance on non-traditional approaches is not adequate to effect changes in student nurses' values and beliefs [17]. Simulation as a supplement to traditional teaching approaches, and designed around suicide risk assessment, has the potential to provide nursing students the opportunity to not only change attitudes but also to develop essential skills. Bolster *et al.* [9] suggest that with simulation being an integral part of nursing education at undergraduate level, simulation scenarios incorporating suicide assessment need to be routinely established and integrated into curriculum.

There is no doubt that simulation is an effective pedagogical tool within nursing education, however the term "simulation" can be applied to a variety of approaches. Simulation is defined as a technique or activity that aims to "authentically recreate, imitate or amplify characteristics, processes and experiences of the real world for the purposes of teaching, acquiring and assessing knowledge, skills and attitudes" ([18], p. 411). Simulation exercises are developed on a continuum from low fidelity to high fidelity [19] and activities include the use of standardised patients (SPs) with actors or real patients, high-fidelity patients such as mannequins, or virtual clinical exercises [20] [21]. Low fidelity patient simulation refers to case studies or simple psychomotor skills. Medium (or intermediate) fidelity involves manikins that have a basic level of computerisation with minimal realism or complexity. High fidelity patient simulation refers to pre-developed realistic patient scenarios and computerised manikins, also termed a high-fidelity manikin, that are able to respond to student nursing interventions [22]. Each of these approaches offers possibilities in preparing student nurses' for suicide risk assessment.

3. Aim

The aim of this paper is to explore the potential of simulation in preparing student nurses for suicide risk assessment.

4. Method

A computer search of databases was undertaken through CINAHL, Medline, and Proquest Nursing and Allied Health Source. The search terms “undergraduate nursing education” and “suicide” and “simulation” yielded few articles. Given a lack of literature, and that experiencing a mental disorder is one of the strongest risk factors for suicide [23], the search was expanded to cover the use of mental health simulations to educate undergraduate nurses how to work alongside people with experiences of mental illness. Key search words added were “mental health” and “mental illness”. This yielded a larger number of articles published between 2007 and 2016. The inclusion criteria were articles that were: (i) published in peer reviewed journals; (ii) original research (iii) written in English; and (iv) reported, investigated or contained results related to the focus of this paper. Exclusion criteria included: (i) studies not using simulation modalities; (ii) those focused on physical assessment (iii) and those specifically related to other professional student groupings, for example medical students. Hand searches of references of relevant articles and a search of Google Scholar identified further articles which could be included (**Figure 1**).

In order to attain the aim of this article the content of the articles were initially scrutinised to identify key themes. Then the following analytical questions were formulated: (i) What simulation modalities have been employed and what outcomes are associated with these (**Table 1**)? (ii) What are the implications for supporting student nurses to develop skills in suicide risk assessment? (iii) What are the implications for nursing education? The findings from this analysis are discussed in the following sections.

5. Simulation Modalities

5.1. Standardised Patients

The use of standardised patients [SPs] within simulation is one of the more

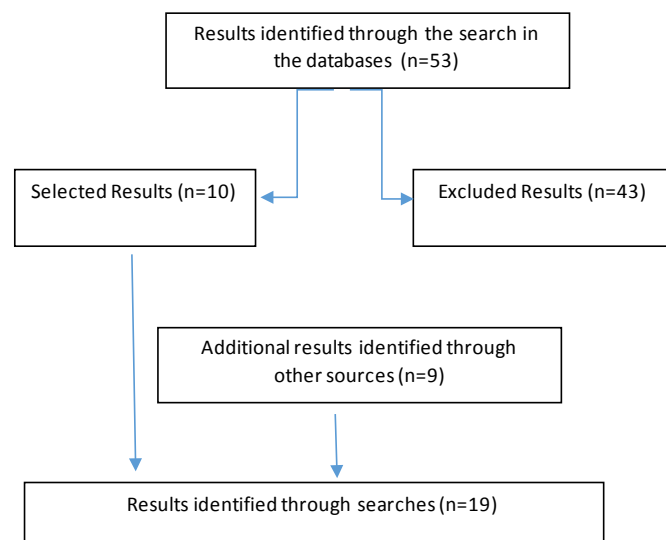


Figure 1. Selection process flowchart.

Table 1. Simulation modalities in undergraduate mental health nursing education.

Author Reference	Design	Aim	Modality	Outcomes
Bartlett & Butson (2015) [27]	Survey N = 44	Describes the use of actor-based simulations in mental health education	SP	CA; DA; EC; IC
Dearing & Steadman (2008) [34]	Experimental Comparative Post test N = 94	To determine the success of a VHS during orientation in changing nursing students' attitudes regarding patients who experience auditory hallucinations	VHS	CA; IE
Doolen <i>et al.</i> (2014) [24]	Survey N = 94	Describes the development and use of SPs as a learning strategy	SP	DA; EC; IC; RE
Evans <i>et al.</i> (2015) [35]	Quasi-experimental pre-post test N = 256	To evaluate whether students' participation in a simulated auditory hallucination will increase their understanding and knowledge about psychosis and auditory hallucinations	VHS	IE; IU
Hamilton Wilson <i>et al.</i> (2009) [37]	Narrative N = 27	To provide nursing students with an experiential learning opportunity which simulated living with voice hearing	VHS	IE; IU
Hermanns <i>et al.</i> (2011) [41]	Evaluation N = 11	To illustrate the use of a simulated attempted suicide scenario in a psychiatric inpatient setting.	MHF	IU; SE
Jack <i>et al.</i> (2014) [12]	Descriptive	To describe the implementation of simulation using a professional actor to prepare students for clinical rotation	SP	EC; IC
Kameg <i>et al.</i> (2013) [39]	Quasi-experimental Pre - post test N = 37	To assess if High Fidelity Patient Simulation improved student knowledge and retention of knowledge	MHF	IK; IS
Kameg <i>et al.</i> (2014). [28]	Quasi-Experimental N = 69	To assess if SPs can reduce student anxiety as measured by an anxiety visual analog scale	SP	DA; EC; IC
Kidd <i>et al.</i> (2012) [33]	Survey N = 126	To measure the effectiveness of a Second Life virtual simulation as a teaching strategy	VT	EG; FL; SE
Lambert & Watkins (2013) [32]	Descriptive	To describe how a cohort of students undertook a simulation project following a virtual patient to an acute inpatient ward.	VT	CT; EC
Lehr & Kaplan (2013) [40]	Post - Survey N = 54	To assess the impact of a mental health simulation using a Medical Education Technologies, Inc Simulation Effectiveness Tool.	MHF	DA; IU
Luebbert & Popkess (2015) [25]	Experimental, two-group post-test N = 34	To develop and test an innovative learning strategy using simulated standardized patients to determine its effectiveness in teaching suicide assessment skills	SP	CA; IC; RE; SE
Martin & Chanda (2016) [26]	Quasi-experimental, one group, pre-post test N = 28	To describe a mental health simulation that encourages the use of therapeutic communication in a mental health setting	SP	EC; RE
Mason (2014) [36]	A pre-post test N = 60	To determine if media technology contributes towards an increase in knowledge, empathy and a change in attitudes in regards to auditory hallucinations	VHS	IE; IU
Orr <i>et al.</i> (2013) [38]	Questionnaire N = 76	To develop and assess simulated voice-hearing as an alternative learning tool to promote a deeper understanding of voice hearing and communication skills	VHS	EC; IE; IU
Robinson-Smith <i>et al.</i> (2009) [29]	Survey, N = 112	To develop and evaluate nursing students' satisfaction with an SP psychiatric clinical encounter in which students performed a mental status exam and suicidal risk assessment	SP	CT; EC; IC; IS
Webster (2013) [30]	Descriptive	To incorporate the Quality and Safety Education for Nurses competency into a simulation activity aimed to improve therapeutic communication skills in psychiatric nursing	SP	EC
Yong-Shian <i>et al.</i> (2016) [31]	Quasi-experimental, pre-post test N = 95	To explore the learning experience of nursing students using SPs whilst practising their mental status examination and suicide risk assessment skills.	SP	CA; EC; IC; RE

Outcomes Key: CA, Change Attitudes; CT, Critical Thinking; DA, Decrease Anxiety; EC, Enhance Communication; EG, Engagement; FL, Flexibility; IC, Improve Confidence; IE, Increase Empathy; IK, Increase Knowledge; IS, Increase Satisfaction; IU, Increase Understanding; MFS, Medium-High Fidelity Simulation; RE, Realistic Environment; SE, Safe Environment; SP, Standardized Patients; VHS, Voice Hearing Simulation; VP, Virtual Technology.

common approaches in the research available and has the advantage of supporting communication with actual people. It is seen to promote a more realistic environment for students [24] [25] [26]. The SP realistically acts a person experiencing mental distress by portraying a range of human responses such as behavioural, physical, psychological and emotional expressions, enabling verbal and non-verbal cues in communication to be assessed and acted upon [24] [27] [28]. This was supported by other studies using SPs, who had similar findings in their studies of mental health nursing students and an SP (a professional actor), emphasising the opportunity for students to observe and develop therapeutic communication skills [12] [26] [29] [30].

The use of SPs can support a decrease in anxiety, increase in confidence and provide a safe environment to practice skills including communication skills. Bartlett and Butson [27] found in their study of actor-based simulations that these helped demystify the mental health clinical setting and provided a rich learning environment for development of student's mental health nursing skills. Studies also found a simulated environment using SPs enables nursing students to increase their confidence and decrease their anxiety [24] [28] and improved student nurses confidence and attitudes towards engaging with a person who is suicidal [12] [25] [27] [29] [31]. Robinson-Smith *et al.* [29] surveyed 112 undergraduate nurses on their self-confidence, critical thinking skills and satisfaction with learning following a standardised patient simulation in which students had to undertake a suicide risk assessment. Overall the students' self-confidence, critical thinking and satisfaction with the learning increased. However, the authors noted that the students risk assessments were undeveloped and did not cover all aspects for reducing risks for suicide. Luebbert and Popkess [25] study of 34 nursing students, also found the use of standardised patients provided a safe alternative for students to practice suicide assessment skills prior to entering the clinical environment. In their study half the nursing students (control group) were given a lecture format on suicide assessment, and the other group (Intervention group) interviewed standardised patients with depression and suicide risk. As noted above, in comparison to the control group, the intervention group reported higher levels of student satisfaction about the learning activity and self-confidence although knowledge between the groups did not differ.

Preparation of SPs and constructive feedback on student performance from SPs was a key aspect of many of the SP studies. Robinson-Smith *et al.* [29] found that these two elements were an essential aspect of SP simulation. Bartlett *et al.* [27] also found that inadequate SP training and limited understanding of mental health experiences can impact on the realism of the simulation and student learning. Authenticity is also dependent on the SP keeping within the simulation design [26].

5.2. Virtual Technologies

Virtual technology is an example of a small but growing simulation approach that does not require interaction with actual people. Virtual technologies such as

use of avatar programmes appear to allow students to practice skills by accessing learning environments that are convenient and flexible to time needs. Lambert and Watkins [32] developed a project which incorporated a virtual patient (in the form of an avatar—an animated human representation) called Mohammed. In this simulation project, 85 first year mental health nursing students followed the admission of a virtual patient to an acute inpatient ward. Over a two week period the student nurses engaged with Mohammed both individually and in teams to support his recovery. The simulation provided the students with opportunities to develop their communication skills and also their clinical reasoning and critical thinking skills. Students reported a greater level of engagement with what were initially perceived as challenging learning activities. In another study [33] students had the opportunity to assess and communicate with a client in the virtual environment of ‘second life’. This provided a safe environment as well as flexibility; however technical issues such as older computers and internet connections and lack of realism did limit the effectiveness of their virtual reality programme.

5.3. Voice Hearing Simulations

Voice-hearing simulations is another example of a simulation approach that although not widely used in undergraduate education, in mental health it does appear to have a valuable role in challenging stigmatising attitudes and stereotypes, promoting understanding and empathy, and increasing knowledge. Dearing and Steadman [34] found the utilisation of a voice simulation exercise (VSE) was an effective tool in reducing stigmatising attitudes and enhancing empathy. In their research, they compared the attitudes of nursing students who had listened to an audiotaped presentation of auditory hallucinations (experimental group), with those who had not received the experience (control group). The experimental group reported gaining more valuable insights or an “insider’s view” into a voice hearer’s world and were more empathetic and confident in their ability to develop a therapeutic relationship with people experiencing mental distress ([34], p. 65). Increased empathy as well as understanding was also supported by findings in recent studies by Evans *et al.* [35] and Mawson [36] who used iPods to enable students to experience auditory hallucinations during a simulated interview situation. Hamilton Wilson *et al.* [37] found that after a voice-hearing simulation workshop nursing students also described having gained an increased understanding into the challenges faced by people who hear voices. Similarly in a later study, Orr *et al.* [38] found that nursing students who had undertaken a voice-simulated exercise with mp3’s, reported better understanding of the reality of voice-hearers experiences, were more empathetic and were able to identify communication skills needed to engage with a voice-hearer.

5.4. Medium-High Fidelity Simulation

With the trend towards the introduction of medium-high fidelity simulation in undergraduate nursing education there has been some attempt to apply this to

the area of mental health. Kameg *et al.* [39] used a high fidelity patient simulation to expose 37 students to a range of medical simulations incorporating a mental health assessment. However, although student knowledge improved, active engagement with the client was limited due to the “patient” inability to portray non-verbal communication. Lehr and Kaplan [40] found that student anxiety was reduced following high fidelity simulations with clients presenting in an emergency room and a surgical ward scenario. Fifty-four students were involved in the simulation although not all were active participants. The combined physical and mental health assessment supported integration of mental and physical assessment skills. In a small study of ten students Hermanns *et al.* [41] replicated an attempted suicide scenario in an inpatient mental health setting. The focus was on resuscitation of a non-interactive mannequin with cues to patient physical status from faculty acting as staff. This scenario enabled students to practice emergency responses in a safe environment.

6. Supporting Nursing Students for Suicide Risk Assessment

At the heart of effective suicide risk assessment is changing attitudes of nurses towards people who are suicidal, increasing confidence and improving assessment skills. It is apparent that SPs, medium-high fidelity, virtual and voice simulation modalities all have the potential to change attitudes and decrease stigma. As future professional gate-keepers or clinicians who are likely to come into contact with at-risk people [10] it is critical that negative attitudes are challenged and addressed. Increasing confidence is especially important for student nurses as they often report feeling anxious talking with someone who is suicidal for fear that they may say the wrong thing and make matters worse [42]. This then impacts on student’s confidence to communicate effectively, establish therapeutic relationships, and assess for suicidal risk [43]. Establishing a rapport is central to supporting clients to disclose relevant information and assists clients at risk to feel connected and more positive about their situation [6] [44].

Increased knowledge and understanding was a benefit of many of the studies using different simulation modalities. However, Hayden *et al.* [45] found that simulation in general does not appear to significantly improve nursing knowledge. This was supported by Luebbert and Popkess’s study [25] which found that there were no reported differences in knowledge about suicide assessment between the control and intervention group. However, the authors suggest that the tools used to measure knowledge acquisition do not fully capture the different levels of learning that occur during simulation exercises, and future studies need to explore the various types of knowledge, beyond factual knowledge, that is acquired during actor based simulations.

Suicide risk assessment involves a number of skills and as mentioned previously can take the form of a mental health assessment or suicide risk assessment involving direct questioning about suicidality [6]. The studies covering suicide risk assessment used mental status examinations incorporating questioning to identify suicidal risk [12] [27] [29] [31] and non-specific interviewing

or questioning [24] [25] [28] [30]. Apart from one study all viewed development of communication skills as a key outcome. Of most importance in a mental health nursing assessment is engagement with the client [44]. Acquired knowledge may not necessary translate into practical skills. Osteen *et al.* [10] identified in their review of suicide prevention training for health professionals that skills-based training needed to be a critical component of any training programme. This should incorporate the ability to question and respond to warning cues. The use of standardised patients and role plays were identified as more effective than didactic learning approaches to develop these skills.

Incorporating simulation to reflect a realistic environment for suicide risk assessment is a challenge especially as attending to non-verbal communication of clients and practicing therapeutic communication is key to effective assessment. According to Haynal-Reymond *et al.* [46] non-verbal cues from clients at risk of suicide provides vital information in assessing suicide risk. Therapeutic engagement between nurses and clients at risk of suicide is seen as the most central factor in nursing management [47] [48]. However, in practice there is evidence that very little engagement occurs, due in part to lack of preparation for this competency in nursing education [48].

Simulation has the potential to support development of this key competency. In general it has been reported to improve student nurses' communication skills [49]. SP simulations can be critical in the development of therapeutic communication as students are able to identify the effectiveness of their communication skills because of how the SP responds to their interpersonal communication approaches [26]. Although high fidelity manikins promote a safe environment in which students can develop their clinical skills and decision making [43], high-fidelity manikins are unable to simulate the complexity of human behaviours, such as mood, emotions, facial expressions and body language [24] [27]. In addition, the realism of the simulation to the clinical environment is central to quality learning [50]. Students have difficulty viewing the mannequin as "real" or as helpful in developing a client-nurse interpersonal relationship [51] and in the case of computerised mannequins are not able to use all their senses, including those of smell and touch [50]. The use of SPs appears to be the simulation modality with the most potential to promote use of the full range of human communication including non-verbal communication. A sense of realism and incorporation of expressive behaviours and responses give insight into the person's experience and are critical in the assessment of a person's mental health needs, including suicide risk assessment.

7. Implications for Nursing Education

If we are to be serious about reducing the suicide statistics and meet the directive from the WHO for suicide risk assessment to be a core competency of nurses we must begin at the undergraduate level. As outlined previously capability with both mental health assessment and suicide risk assessment prepares frontline staff to act to prevent suicide. Simulation does offer one approach to meeting

this goal for nursing. The limited number of studies related specifically to the use of simulation and suicidality may primarily be a reflection of this being a newer area of study. Within nursing curriculum, the design of mental health simulations is a relatively new and innovative educational tool and it is acknowledged that more research on the effectiveness of simulation is needed [21] [52]. Within society there is also generally a reluctance to discuss matters associated with death and dying [53]. The lack of research literature related specifically to the use of simulation and suicidality may covertly reflect society's and therefore nurses reluctance to engage with this social taboo topic. Such concerns may be replicated within nursing curriculum and possibly contribute to the minimal number of simulation exercises on this topic.

Some simulation modalities such as voice simulation offer more flexibility and have less resource implications. There is also increasing demand to respond to modern-day technologies such as virtual learning environments to support student preparation for practice [54]. The use of simulation has arisen in a changing educational environment, where nurse educators need to manage conflicting tensions surrounding more flexible on-line web based programmes with reduced face-to face teaching hours and budgets [32]. Simulations can be expensive to resource, both financially and in time. But given the positive educational advantages over traditional pedagogy methods, the cost of simulations may be worth it, as the results, especially in the area of suicide risk assessment, can be life-saving.

In an ideal world we would expose students to a range of simulation modalities focusing on mental health and incorporate a suicide assessment as one of these. However, if the ability to integrate multiple simulations is not possible it appears that a suicide risk assessment scenario incorporating SPs would achieve results that other modalities would achieve but at the same time be inclusive of key non-verbal communication skills and promote authenticity. The few simulations focusing on suicide predominantly used Standardised Patients (SPs) for this reason. The simulations were designed specifically to educate nursing students about suicide risk, enhance nursing students confidence, lessen anxieties and stigmatising attitudes, and help develop therapeutic communication skills [12] [25] [27] [29] [31]. Positive feedback about actor based simulations for suicide assessment training for mental health professional has also been noted in earlier studies [55] [56]. As identified earlier, one consideration is that preparation of the SP is crucial to an effective simulation to ensure authentic behaviour [26]. In addition, the portrayal of a person experiencing mental distress can be emotionally challenging and potentially harmful. In order to protect the psychological welfare of the SP, the actors should be trained not to draw upon their own personal experience but rather to keep to the parameters of the scenario [57].

Regardless of the simulation modality, debriefing and/or follow up sessions were also themes emerging in the studies and should be incorporated into a suicide risk assessment simulation. Debriefing is standard in many simulation

modalities and structured debriefing is seen as essential to learning (Fey & Jenkins 2015; Webster 2013), even if it is time intensive [30] [58]. Other approaches associated with high fidelity simulation such as group observation via video streaming can also be incorporated [24]. According to Oudshoorn and Sinclair [59] the development of skills to cope with mental health challenges and to prepare for a suicide risk assessment cannot be achieved in one attempt. Osteen *et al.* [10] also identified follow-up sessions as critical to support initial training in working with clients at-risk of suicide.

Nurses will encounter and must be prepared to identify and respond to clients who are potentially suicidal regardless of the clinical setting. The pathway to becoming a registered nurse in New Zealand is by undertaking a Bachelor of Nursing programme. Upon completion of their programme, nursing graduates are deemed competent to provide safe nursing care. One area of competency involves undertaking a comprehensive and accurate nursing assessment in a variety of health settings [60]. Physical needs of clients cannot be separated from their mental health needs [39] [40]. However, nearly all the simulations identified in this paper incorporating suicide risk assessment were located within a mental health setting [12] [24] [25] [27] [28] [29] [30]. There is an international trend towards preparing front line staff to respond to client's mental health needs regardless of the setting. The World Health Organisation released guidelines for health professional working in primary care and accident and emergency settings to work with those with mental health challenges [61]. Currently in New Zealand primary health care nurses are undertaking credentialing programmes to update their mental health and addiction skills and knowledge so they are able to be recognise and be responsive to clients with these needs [62]. In addition guidelines for suicide risk assessment have been released for emergency departments [5]. To prepare nursing students for current practice, simulations incorporating suicide risk assessment need to be located not just within a specific mental health context but also a wider range of clinical settings.

It is apparent that further research is required on the potential of simulation modalities to prepare students for suicide risk assessment especially in the area of therapeutic interpersonal communication. Further research on simulation which integrates mental health into a variety of clinical areas would support the preparation of nurses to carry out mental health assessment regardless of the setting. It would also be beneficial to explore the cost-effectiveness of different simulation modalities.

8. Conclusion

The aim of this paper was to explore the potential of simulation in preparing student nurses for suicide risk assessment. It is apparent that all modalities to greater or lesser degrees have the potential to decrease student anxiety, promote student confidence, communication skills, and knowledge and understanding in working with clients at risk of suicide. The use of SP simulations supports students to practice in a manner in which the full range of authentic human expres-

sion and communication can be enacted and experienced. A well designed simulation package including preparation, feedback and ongoing reinforcement and integrating multiple clinical settings offers the most potential to support student nurses to be prepared for suicide risk assessment. In light of the increasing focus on technology based simulations, and emphasis on flexibility and cost reduction, it would be prudent for nurse educators to remember what skills are most central to effective suicide risk assessment when introducing simulation to develop skills in this area of practice.

9. Relevance for Clinical Practice

Suicide is preventable, and nurses are in a key position to prevent suicide. However, nurses report feeling unconfident in assessing for suicide risk. Development of these potentially life-saving skills needs to start at the undergraduate level. The findings of this paper identify the potential of different simulation modalities in educating our future nurses in suicide risk assessment. The findings also reveal that most undergraduate simulations regarding suicide risk, tend to be focused primarily within a mental health setting. Given that nurses are likely to encounter a person who is suicidal in any clinical area, simulation scenarios may need to be located within a wide range of clinical settings. This paper highlights that regardless of the setting, nurses need to have the knowledge, confidence and skills in assessing for suicide risk. Simulation is one approach to support acquisition of these skills.

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Nursing Staff's Experiences of Providing Toilet Assistance to Elderly Nursing Home Residents with Urinary Incontinence

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Abstract

Introduction: Urinary incontinence is a common condition among elderly. It affects their daily life and quality of life. Toilet assistance may decrease urinary incontinence episodes among elderly. Many nursing home residents do not receive the available evidence-based toilet assistance they need. **Aim:** The aim of the present study was to describe nursing staff members' experiences of providing toilet assistance to elderly nursing home residents with urinary incontinence. **Design:** A descriptive design with a qualitative content analysis method was used. **Method:** Four nurses and seven auxiliary nurses were interviewed in three homogenous focus groups. Data were collected during spring 2015. **Results:** The most essential opportunity factor for good toilet assistance was the nursing staff's attitude and behavior regarding the elderly's need to visit the lavatory. This resulted in individual toilet assistance in which the elderly's integrity and needs were cared for. Functioning routines and sufficient staff availability were crucial in determining whether the elderly could visit the lavatory. Other enabling factors for good toilet assistance were information and education of staff. The main obstructing factors for good toilet assistance were the elderly's decreased cognitive ability, negative attitudes toward receiving toilet assistance and lack of communication and co-operation between professionals with regard to prescribing and fastening individual incontinence aids. **Conclusion:** Providing toilet assistance is a considerable nursing intervention for elderly to help them regain continence or contain incontinence, whenever possible. Person-centered incontinence care is important for developing and adjusting toilet assistance based on each older person's individual needs.

Keywords

Focus Groups, Nursing Staff, Nursing Home Residents, Toilet Assistance,

Urinary Incontinence

1. Introduction

Toilet assistance is a behavioral intervention in helping older people to manage urinary incontinence (UI) as well as promote continence. Many nursing home residents do not receive the available evidence-based toilet assistance they need [1] [2] [3]. There is a need for scientific studies that can describe nursing staff members' experiences of providing toilet assistance in nursing homes.

Urinary incontinence (UI) is a common condition among elderly and affects their daily life and quality of life [3] [4] [5]. The International Continence Society defines UI "as any involuntary leakage of urine" [6]. In Sweden, there are about 1.8 million persons 65 years of age or older, and 35% - 40% of them experience UI. In nursing homes, more than half of residents may be incontinent [3] [5]. The prevalence of UI in nursing homes is associated with environmental factors [7] [8] [9], immobility and medical diseases, such as diabetes mellitus, stroke and dementia [5].

Toilet assistance is intended to maintain continence by assessing each person's individual urination habits. Toilet assistance includes prompted voiding, habit training and timed voiding. Prompted voiding means that verbal prompts are used to ask the elderly whether they are wet or dry, and whether they need toilet assistance. If such needs arise, then the staff helps them to the lavatory. Habit training means identifying the elderly person's natural voiding pattern and creating an individualized toileting schedule. Timed voiding is based on pre-determined intervals between toilettings [3] [10] [11]. There is proven experience suggesting that less urine leakage occurs in residents with dementia who have undergone habit training [12]. There is limited scientific evidence suggesting that toilet assistance in the form of prompted voiding in combination with physical training has positive effects on incontinence episodes in frail elderly [1] [2] [3]. A review paper showed that prompted voiding combined with use of incontinence aids is the primary conservative behavioral approach to management of UI in older people living in care facilities [11].

The person-centered practice framework proposed by McCormack *et al.* [13] highlights the importance of the development of effective teamwork, workload management, time management and staff relationships to include patient satisfaction and involvement in care as well as feelings of well-being [13]. It is important that nurses working with older people provide person-centered incontinence care [14]. Older persons who have developed symptoms of UI should undergo an assessment, the results of which enable nursing staff to work with the individual person to determine whether promoting continence is possible. If the old person is frail, dependent and has significant comorbidities and cognitive impairment, it may be more appropriate to contain UI [15]. According to Na-

zarko [15], when continence promotion is inappropriate, the intentions of person-centered care should be to contain UI and provide dignified, respectful care.

Nursing home residents have an increased risk of developing UI compared to other same-age older persons [10]. Toilet assistance is a person-centered intervention for nursing home residents with UI. Evidence from staff experiences of providing toilet assistance to nursing home residents are limited [11]. No previous study could be found that has focused on the topic. This knowledge can be used to facilitate implementation of toilet assistance among nursing home residents, the intention being to regain continence or contain UI as well as enable the best possible quality of life for each individual.

The aim of the present study was to describe nursing staff members' experiences of providing toilet assistance to elderly nursing home residents with urinary incontinence.

2. Methods

A descriptive design was used and is appropriate when little is known about a topic [16].

3. Setting and Participants

The present study was conducted in a nursing home in Sweden during spring 2015. The facility included a dementia ward and a short-term ward, with 46 accommodations in total. A purposive sampling was used, where all informants had at least one year of experience of providing toilet assistance, which allow more detailed questions on the subject matter [16].

Approximately 31 day-/night-shift auxiliary nurses and nine day-/night-shift nurses who had experience of providing toilet assistance in a nursing home were invited to participate. In total, eleven informants, all female day-shift workers, agreed to participate in the present study: seven auxiliary nurses and four nurses.

Data Collection

Three homogenous focus group discussions were conducted in a conference room at the workplace: one with three auxiliary nurses; one with four auxiliary nurses and one with four nurses. The focus group participants had similar educational backgrounds and experiences, which was intended to make them more willing to compare notes, valuations, thoughts and ideas with each other [16].

The first author moderated the interviews and an assistant, with research knowledge in elderly care nursing, was present in all three focus group interviews and took notes on the group discussions. The moderator used a semi-structured interview guide containing six open-ended questions to guide the group discussions, **Table 1**. The interviews began with one open-ended question: "What do you think when you hear the word toilet assistance?" Each interview lasted between 35 to 50 minutes. The interviews were audio-recorded and transcribed verbatim by the two remaining authors.

Table 1. Interview guide.

How does the elderly signal his/her need of toilet assistance?
How do you pick up the elderly's need of receiving toilet assistance in time?
How do you experience the help the elderly receive to arrive at the lavatory in time?
What do you experience is important for the elderly to receive toilet assistance?
What does it mean for the elderly to receive help to the lavatory in time?
How has urinary incontinence been affected by elaborated toilet assistance?

Probes:

How do you mean?

Can you tell me more?

4. Data Analysis

A qualitative content analysis method was used to analyzing interview transcripts and discovering patterns and categories. The authors performed the data analysis, using a qualitative content analysis method by Graneheim and Lundman [17] that included manifest (close to the text) analysis. The analytical phase began by reading all transcriptions carefully several times to grasp the meaning of the whole and then dividing it into meaning units. Such a unit could be a sentence, paragraph or page incorporating one meaning corresponding to the study aim. The meaning units were condensed, that is, shortened, but they remained close to the text. The condensed meaning units were further condensed and formed into codes. The various codes were then grouped based on similarities and differences, which generated subcategories and categories. A category can be seen as a thread throughout the codes and often includes a number of sub-categories at varying levels of abstraction, **Table 2**.

5. Ethical Considerations

The participants were informed about the study both in writing and orally, and informed consent was obtained from all participants. They were also informed that participation was voluntary and that they had the right to discontinue without any explanation or consequences for themselves. All information was treated confidentially. The Regional Research Ethics committee at Uppsala, Sweden, approved the study (reg. no. Dnr 2014/480).

6. Findings

The socio-demographic characteristics of the participants are described in **Table 3**. The auxiliary nurses were between 25 - 63 years of age and had worked in the nursing home between 2 - 29 years. Corresponding figures for nurses were 30 - 52 years of age and 2 - 15 years of work experience in the current position. The nurses had all received training in incontinence care.

The findings are presented in two categories divided into opportunities for and obstacles to good toilet assistance, **Table 4**.

Table 2. Examples of the data analysis process from meaning unit to category.

Meaning unit	Condensed meaning unit	Code	Subcategory	Category
<i>I also think that it's a basic need we have. Being able to go to the lavatory is a fundamental need, relieving oneself, being able to pee. You know, simply a fundamental need a person has. (nurse)</i>	A basic need visiting the lavatory to passed stools and pee.	Need	Identifying and understanding elderly resident's urination habit needs.	Opportunities for good toilet assistance
<i>And there are older residents who think going to the lavatory is difficult. It's easier to use the pads instead... where I can relieve myself whenever I like. (auxiliary nurse)</i>	Elderly who prefer incontinence aid for its convenience.	Convenience	The elderly's attitude toward receiving toilet assistance	Obstacles for good toilet assistance

Table 3. Socio-demographic characteristics of the participants.

Variables	Auxiliary nurse (n = 7)	Nurse (n = 4)
Age groups:		
25 - 40 years	3	2
41 - 65 years	4	2
Sex:		
Female	7	4
Male	0	0
Marriage	7	4
Working experience:		
1 - 15 years	3	4
16 - 30 years	4	0
Incontinence course	0	4

Table 4. A summary of categories and subcategories who describe nursing staff experiences of providing toilet assistance to elderly nursing home residents with urinary incontinence.

Categories	Opportunities for good toilet assistance	Obstacles for good toilet assistance
	Identifying and understanding elderly residents urination habit needs	The elderly's cognitive ability
	Safeguarding the elderly's individual differences and integrity	The elderly's attitude toward receiving toilet assistance
Subcategories	Common values	Lack of cooperation and communication between professionals
	Developing routines	
	Resources	

6.1. Opportunities for Good Toilet Assistance

6.1.1. Identifying and Understanding Elderly Residents' Urination Habit Needs

The encounter between the older person and the staff was considered important to identifying and understanding the elderly's needs. The nursing staff identified when the elderly needed to visit the lavatory and then helped them to the lavatory. The staff asked the residents whether they needed toilet assistance. Both nurses and auxiliary nurses thought it was a matter of course to provide toilet assistance, and identifying each resident's natural voiding pattern was an opportunity to provide individual toilet assistance. The staff considered that visiting the lavatory was a basic need for the elderly, and that staff not helping them to the lavatory was an indignity.

I also think that it's a basic need we have. Being able to go to the lavatory is a fundamental need, relieving oneself, being able to pee. You know, simply a fundamental need a person has. (Nurse)

The encounter between the older person and the staff was considered important to identifying and understanding the elderly's needs. To provide individual toilet assistance, it was important to ask each elderly person about urination habit needs at admission. Opportunities for good toilet assistance emerged when the staff got to know the older person. On the long-term ward, the staff could more easily identify and follow-up the elderly's urination needs than they could on the short-term ward, where the elderly stay for shorter periods.

According to the staff, being creative was useful when providing toilet assistance. Changing the language from "take a leak/pee" to "pee" and changing the color of the toilet seat were proposals for creative actions. Trying to understand when the elderly needed toilet assistance was like doing detective work.

6.1.2. Safeguarding the Elderly's Individual Differences and Integrity

The staff reported having been able to note early signs of a person needing to visit the lavatory.

... just looking at the older person. What is different now? Now "Agda" is becoming a bit anxious or you take the time to consider what may be wrong... That's what's important. (Auxiliary nurse)

The staff felt that providing toilet assistance to men was different from helping women. Sometimes, male residents made "inappropriate proposals" to the female staff during toilet assistance. Among the female residents, there were some who refused toilet assistance from male staff.

Providing toilet assistance should build on respect for the elderly's integrity. The staff said that it was important to ask the older person for permission before taking his/her pants down. Not all older persons appreciated the staff talking out loud about their need for toilet assistance.

6.2. Common Values

Today, providing toilet assistance had become a matter of course. According to

the nursing staff, older persons are provided toilet assistance more often today than they were before.

So I think it was done too little before... You put a diaper on them and sat them in a wheelchair, then the diaper wasn't changed until it was time for bed in the evening. (Auxiliary nurse)

The staff felt the outcome of providing toilet assistance was successful each time the elderly reached the lavatory in time, before their incontinence aid or pants got wet. The staff considered that helping the elderly with toilet assistance was an important intervention for containing their incontinence.

Incontinence should be minimized by having toilet assistance even if the elderly residents are not completely dry. They may always need a protective pad, but it should be as minimal as possible, so they don't need the thickest, largest pad available. (Nurse)

Developing Routines

One important factor in promoting good toilet assistance was having established routines. The staffs need to ask each elderly person about urination habits at admission. Every new nursing home resident had to undergo a basic UI investigation to assess individualized needs for toilet assistance, and this should occur before prescribing the appropriate incontinence aid, if one was needed.

If there was a change in the elderly person's condition, it was important to start a new investigation to ensure that he/she received appropriate individual toilet assistance and was prescribed appropriate individual incontinence aids.

Before the staff were a bit lazier. They grabbed a diaper that fit, but now as soon as something changes there is a new assessment. For example, measuring urine leakage, that's something new. (Auxiliary nurse)

The staff practice of providing toilet assistance to the elderly began with timed voiding, and then gradually they were able to attend to habit training.

6.3. Resources

The staff had received information and training in basic UI assessment, toilet assistance and prescribing and monitoring toilet assistance. Every ward had two continence agents (auxiliary nurses) who were responsible for updating information on new routines and incontinence aids and who also arranged staff meetings.

We have two continence agents on the ward. They provide the information and then we usually get a report at staff meetings. (Auxiliary nurse)

On the dementia ward, the staff had in-service training in dementia care, which provided useful information on how to note early signs of a person in need of a lavatory visit. The nurses felt that the axillary nurses on the dementia ward learned each older person's signs better than the auxiliary nurses on the short-term ward did.

The staffing level was another important resource in providing toilet assistance around the clock. The day-shift staffs were, however, unsure about wheth-

er the elderly received toilet assistance at night. The night staff said it could be risky to help the elderly to the lavatory, because they often worked alone at night.

6.4. Obstacles to Good Toilet Assistance

6.4.1. The Elderly's Cognitive Ability

Sometimes the staff found it difficult to provide toilet assistance to older persons with dementia, who sometimes did not understand what they were to do in the lavatory. This situation could lead to frustration among elderly residents. At the admission dialogue with the elderly person and his/her relatives, it was sometimes difficult for them to describe the elderly person's urination habits and needs. In such cases, opportunities for individualized toilet assistance were not as good.

6.4.2. The Elderly's Attitude toward Receiving Toilet Assistance

The staff stated that providing toilet assistance had stirred different emotions among the elderly. Several older persons did not want to bother the nursing staff. Others were thankful, but felt they were a burden to the staff. Some elderly were ashamed of asking for help with visiting the lavatory at night. The staff found it more difficult to talk with male than female elderly persons about receiving toilet assistance, owing to the men's embarrassment.

The staff stated that some elderly wanted incontinence aids just to be on the safe side, and others wanted incontinence aids instead of toilet assistance.

And there are older residents who think going to the lavatory is difficult. It's easier to use the pads instead... where I can relieve myself whenever I like. (Auxiliary nurse)

According to the staff, the elderly and his/her relatives were more involved in the care and placed higher demands on nursing, though they did not place high demands on receiving toilet assistance.

In my experience, they don't have the same expectations for toileting that they have for choosing what they will have for breakfast, for example. They don't focus the same energy or expectations or importance on being able to use the lavatory. I've never heard anyone say: I want to visit the lavatory at 9 o'clock. (Nurse)

6.5. Lack of Co-Operation and Communication between Professionals

The nurses felt there was a lack of co-operation and communication between auxiliary nurses and nurses concerning prescribing and fastening individual incontinence aids. The nurses believed urine leakage had increased among the residents and that this was because the auxiliary nurses did not listen to the nurses' directives. The nurses experienced "us vs. them thinking" among the staff and auxiliary nurses. They said that providing toilet assistance with use of incontinence aids, if needed, is the main conservative treatment for regaining

continence or containing incontinence; however, it requires proper fastening of the incontinence aid.

... why don't they do like we say? They are trained in fastening incontinence pads and they do it wrong anyway. ...Why is it we can't reach each other? Or are they thinking this is how we've always done it and always will? (Nurse)

The nurses meant that it was difficult to get the staff team to carry out pad-weight tests and fasten incontinence aids, because the auxiliary nurses often believed that changed working routines would lead to increased workload. The auxiliary nurses, however, thought there were too many restrictions on providing individual incontinence aids, for example, when the elderly sometimes needed larger incontinence aids during the night or when they had diarrhea.

7. Discussion

The most essential opportunity factor for good toilet assistance was the nursing staff's attitude and behavior regarding the elderly's need to visit the lavatory. This resulted in individual toilet assistance that involved seeing to the elderly residents' integrity and needs. Functioning routines and appropriate staffing levels were crucial in determining whether or not the elderly were able to visit the lavatory. Other enabling factors for good toilet assistance were information and education of staff, e.g. provided through in-service training and training offered by continence agents. The main obstructing factors for good toilet assistance were the elderly persons' cognitive ability and attitudes toward receiving toilet assistance as well as lack of communication and co-operation between professionals with regard to prescribing and fastening individual incontinence aids.

A study on staff members' attitudes and ability to imagine elderly residents' situation showed that empathy is vital to ensuring that the elderly's needs regarding visiting the lavatory are met. Person-centered care is based on the attitude that nursing staff should offer the elderly dignified and respectful care, ensure the elderly's needs are met, and that the elderly's autonomy should be protected and their own resources be made use of [13] [15]. In cases where the elderly cannot self-initiate requests for toileting, for example in cases of dementia, the nursing staff must recognize these signs and provide good toilet assistance, which the staffs in the present study were able to do. The staffs, however, need continuing in-service training in dementia care, for example, in how to manage harassment when providing toilet assistance.

In the present study, the staff found it more difficult to talk with male than female elderly persons about receiving toilet assistance, owing to the men's embarrassment. It is important to have a gender perspective when providing person-centered incontinence care. DeMoraes *et al.* [18] stated that men with UI often experienced impotence, poor mental health, decreased self-esteem and that these symptoms have implications for their manhood. For this reason, in their care decisions, staff should deal with the issue and point out that UI is a com-

mon condition in men and that help is available. In the present study, female residents preferred not to talk about their UI with male staff. The reason could be that the women felt uncomfortable with male staff in these situations. Hägglund [19] stated that providing toilet assistance could involve the risk of violating someone's privacy. The nursing staff should therefore be aware of emotions and experiences in connection with UI problems commonly found among the elderly [3] [20].

It is vital that nursing staff work with individual toilet assistance. Ageing and the long-term conditions associated with ageing increase the risk of UI for the individual [21]. There is proven experience suggesting fewer UI episodes in nursing home residents with dementia who have undergone habit training [12]. The nursing staff in the present study received training in providing toilet assistance in the form of prompted voiding, habit training and timed training. The staff practice of providing toilet assistance to the elderly residents began with timed voiding; gradually, however, they could begin habit training. Having adequate staffing levels [13] was another important resource for providing toilet assistance around the clock. However, the night staff meant that it could be risky to help the elderly to the lavatory, because they often worked alone at night. Narzako [15] stated that the goal could be to promote continence during the day and manage incontinence at night.

Our findings showed that development of routines provides opportunities to include timed voiding and habit training in basic incontinence care. Staff members need to ask each elderly person about his/her urination habits at admission. The foundation of toilet assistance is to make it more personalized, so that every old person receives individualized toilet assistance and correct prescription of individual incontinence aids, when needed [10]. The nursing staff may understand the routines, but need time and appropriate staffing levels [13] to provide good toilet assistance around the clock. The staff who participated in the present study stated that the elderly preferred large incontinence aids at night and did not wish to disturb the night staff, given the lack of staff and the exhaustive routines they must perform at night.

The continence agents were important resources on the wards and provided crucial information and training to colleagues concerning new routines and incontinence aids. Having two agents on each ward was an enabling factor and in accordance with the provincial guidelines in UI among elderly [22].

The present study revealed a lack of communication and co-operation between professionals. The nurses felt the auxiliary nurses did not follow their directives, especially with regard to using individual incontinence aids. The auxiliary nurses meant that they sometimes had to use larger incontinence aids, for example, at night. Lack of communication may be due to professionals not having the same information. Did the nurses understand the auxiliary nurses who stated that the prescribed incontinence aids were not proving sufficient? Was there any action plan for these problems? Did the auxiliary nurses understand how to assess UI, carry out pad-weight tests before prescribing individual incon-

tinence aids and fasten in continence aids? The nurses meant that fastening incontinence aids properly and providing toilet assistance could lead to decreased workload. The nurse is responsible for the entire prescription process and plays an essential role in teaching pad-weight testing [22]. Nurses play a key role in preventing and treating UI within elderly care [23] [24]. Moreover, the nurse is also responsible for supporting dissemination and use of national and local guidelines [25] [26].

8. Strengths and Limitations of the Study

Three criteria are used to assess the trustworthiness of the findings: credibility, dependability and transferability [27]. Credibility was ensured by using purposive sampling; all informants had at least one year experience of providing toilet assistance for elderly in a nursing home. However, none of the night-shift nursing staff participated, which may have affected the findings. Examples from the data analysis were described in the methods section, and citations from meaning units belonging to the subcategories were presented, representing both auxiliary nurses and nurses.

Dependability was ensured through use of a semi-structured interview guide. However, no pilot interviews were conducted before initiating the study, which may have affected the findings [16]. All authors analyzed the interview texts and critically discussed the data to ensure that they are original [16]. Repeated analyses were conducted until the subcategories were mutually exclusive and good consistency was achieved [27].

The present findings can be transferred to nursing homes. The reader can follow the structure of the study, from the sampling and analysis process to the findings, which increases the study's transferability [27].

9. Conclusions and Clinical Implications

Providing toilet assistance is a considerable nursing intervention for elderly to help them regain continence or contain incontinence, whenever possible. Person-centered incontinence care is important in developing and adjusting toilet assistance based on each older person's individual needs.

For elderly persons, toilet assistance can increase quality of life. Visiting the lavatory is a human right. For the staff, when providing toilet assistance it is important to develop methods for treating elderly persons from different cultures and with different values. At the societal level, providing good toilet assistance may counteract the development of UI among the elderly and decrease the costs of waste management and laundry services. Ethical aspects in conjunction with providing toilet assistance for the elderly persons should be considered in person-centered incontinence care.

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Comparison between Elderly Persons of the Urban Community, According to the Indicative of Depression

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Abstract

Objectives: To compare the sociodemographic and economic profile, functional capacity, number of self-referred morbidities and level of physical activity among the elderly with and without indicative of depression. **Methods:** Cross-sectional and analytical study, with 980 elderly persons (250 with and 730 without indicative of depression) residing in the city of Uberaba, in the State of Minas Gerais, Brazil, between August 2012 and May 2013. We used the BOMFAQ Questionnaire, GDS 15, Katz Index, Lawton and Brody Scale and IPAQ. For data analysis, descriptive statistics and the Chi-square test ($p < 0.05$) were used, in the program SPSS, version 17.0. **Results:** In the comparison between the groups, there were significant differences regarding the female gender ($p = 0.009$), education ($p = 0.008$), individual income ($p < 0.001$), activities of daily living ($p < 0.001$), instrumental activities of daily living ($p < 0.001$) and number of morbidities ($p < 0.001$). **Conclusion:** The comparison of the existence or not of depressive symptoms among the elderly enables a more effective planning of public policies aimed at health promotion and adequate treatment in cases of disease already present and the subsidization of preventive strategies, using data such as risk factors and associated factors and ways to research depression.

Keywords

Depression, Aged, Motor Activity, Activities of Daily Living

1. Introduction

The aging process can promote the emergence of chronic diseases, especially depression, which is a mental disorder of complex and multifactorial etiology

[1].

Depression in the elderly is considered one of the most common health and important problems as a result of the significant prevalence. Among the elderly in the urban community, a study carried out in a municipality of the State of São Paulo, Brazil, has identified that 15.7% of them had depressive symptoms [1]. Another study carried out in the Cardiogeriatric Unit of the Clinics Hospital of the School of Medicine of São Paulo (InCor/HC-FMUSP), with 1020 elderly patients with heart disease, has found that approximately half of the study population suffered from major depression and 11% from minor depression [2]. We have to consider that estimates of depression in the elderly are quite varied because of the differences of the population studied and the diagnostic criteria adopted in population surveys.

The disease presents chronic evolution and has great potential for commitment of labor and social activities in general, especially when manifested in moderate or severe intensity. The most serious cases can lead to suicide [1]. Moreover, it has relationship with the socioeconomic and cultural conditions of elderly persons [3]. We can observe that some factors are associated with increased detection of depression: illiteracy, low educational level, female gender, low income; moreover, it has been found that the more severe the depression, the worse the self-perception of health. In addition, depression can be related to a lack of physical activity, cognitive deficits and functional incapacity for activities of daily living [4].

In this sense, the regular practice of physical activity has been described in the literature as a protective factor for the manifestation of depressive symptoms [1] [5].

In relation to functional capacity, it is known that the chronicity of depressive symptomatology has deleterious impacts on the functional status, which, in turn, can generate more depressive symptoms. The interaction of these factors can contribute to a progressive decline in the health status of the elderly population [6].

Biological changes from the depressive symptoms also increase the risks of developing Noncommunicable Diseases (NCD), leading to the exacerbation of the condition. Another factor to be highlighted is the limitation of daily life that the NCD can cause, increasing the chances of developing the psychiatric illness [7], which highlights once again the cyclical trend of interaction of the conditions presented by the elderly affected by the disease.

This panorama becomes even more critical when we consider the seriousness and proportions that NCD mean for the global Public Health [3] [8]. However, similarly to the limitation to the activities of daily living, the low level of physical activity is a modifiable risk factor for the reduction of the rates of depression among the elderly, and it can be addressed in Public Health programs [4].

Research conducted in a municipality in southern Brazil, with elderly persons in the community and institutionalized, showed that 81.46% of those who showed symptoms of depression reported not having hopes for the future and

69.9% of the elderly in the community reported “feeling lonely in the last month”, against 21% of the institutionalized ones [9].

A study conducted with 351 elderly persons in Southeast Brazil has found a positive association between antidepressants and age and higher income range; however, the prevalence of depressive disorders in this municipality is greater in low-income population, thus showing the possibility of the existence of inequality in mental health care for this population [10].

Thus, it is necessary to increment studies that assess the health and living conditions of the elderly population, especially regarding depression, because of the repercussions on the life of the elderly. In addition, it is necessary the provision of conditions for the targeting of health actions, both in geriatric programs and in more general social policies.

In the literature, we can find a diversity of studies relating to depressive disorders in the elderly population, given its relevance to the health care of this age group [1] [3] [4]. This research has mainly contributed with the comparison between elderly persons in the community with and without indicative of depression.

This study has aimed to compare the sociodemographic and economic profile, functional capacity, level of physical activity and self-referred morbidities among the elderly with and without indicative of depression.

2. Methods

The research was characterized as observational, analytical, with cross design and as a household survey. The study is part of the master’s thesis entitled Indicative of depression and associated factors in elderly persons of the urban community, of the Graduate Program *StrictoSensu* in Health Care of UFTM [11].

For the composition of the sample, a representative sample of the elderly population (obtained in previous research studies) residing in the urban area of Uberaba/MG of 2149 individuals was used. The sample calculation considered 95% confidence, 80% power, 4.0% margin of error for interval estimates and estimated proportion of $n = 0.5$ for the proportions of interest. The elderly persons were selected through proportional stratified sampling technique considering the various neighborhoods as strata.

The inclusion criteria were: to be 60 years old or over, do not present cognitive decline and residing in the urban area of the municipality of Uberaba/MG.

The following were excluded: the elderly who were hospitalized (14), who were not found after three consecutive attempts by the interviewer (183), who changed their addresses (193), who presented cognitive decline (160), who lived in the same residence (64) and other reasons (252). There were 303 losses, 266 due to death and 37 due to refusal to participate in the study.

Thus, 980 elderly persons met the criteria established, who were divided into two groups: the first one consisted of those with positive screening for depressive symptoms, called group with indicative of depression (composed of 250 individuals) and those with negative screening for depressive symptoms, called

group without indicative of depression (composed of 730 individuals).

The interviews were carried out by nineteen interviewers properly oriented and trained regarding how to approach elderly persons in their home, the correct filling of the tool and the ethical issues related to the research. The period of data collection was from August 2012 to May 2013.

Six tools were used in total for data collection: the Mini-Mental State Examination (MMSE) that aims to assess the cognition of the elderly, translated and validated in Brazil, with the cutoff point considered according to the education level of the elderly [12].

The Brazilian Multidimensional Functional Assessment Questionnaire (BOMFAQ) was used for the collection of data relating to the identification, sociodemographic profile and self-referred morbidities. The original questionnaire was produced by Older Americans Resources and Services (OARS), prepared by Duke University (1978) and adapted in Brazil [13].

The instrument used for the tracking of depression in the elderly was the Geriatric Depression Scale (GDS), the Brazilian version of the GDS-15, specific to seniors. It is a dichotomous scale, in which participants were instructed to point the presence or absence of symptoms related to changes in mood and specific feelings such as helplessness, worthlessness, disinterest, boredom and happiness. The cutoff point >5 indicates positivity for the indicative of depression [14].

To assess the functional capacity of the elderly, we used the Katz Index. The instrument consists of questions that address the activities of daily living (ADLs) and allows the classification of the elderly into: independent for the six functions; dependent on one function; dependent on two functions; dependent on three functions; dependent on four functions; dependent on five functions; dependent on six functions [15].

The Lawton and Brody Scale was used to assess the instrumental activities of daily living. The instrument was adapted to the Brazilian context and had its reliability assessed, resulting in the classification of IADLs into: total dependence, partial dependence and independence [16].

To measure the level of physical activity, we used the International Physical Activity Questionnaire (IPAQ), long version for elderly persons, validated in Brazil [17]. The IPAQ covers four areas of physical activity: physical activity at work; as a means of transport; when carrying out household chores; and as recreation, sport, exercise and leisure. The instrument allows the classification of the elderly into insufficiently active, when the sum is less than 150 minutes per week, considering the four areas, and sufficiently active, in situations where the sum of minutes is equal to or greater than 150 per week in the aforementioned areas of physical activity [18].

The collected data were processed in microcomputer, by two persons, in double entry in the program Excel®. Then, the consistency of the database was verified and corrected where needed. The database was transported to the software Statistical Package for the Social Sciences (SPSS), version 17.0, for analysis.

Exploratory (descriptive) analyses of the data were carried out, from the cal-

ulation of simple absolute and percentage frequencies. To perform the comparison between groups, the Chi-square test ($p < 0.005$) was used.

Approval was obtained for the execution of the research from the Research Ethics Committee of the Federal University of Triângulo Mineiro, under Protocol No. 2265. Only after the consent of the interviewee and signature of said Term, the interview was started.

3. Results

Of the 980 elderly persons, 25.5% presented indicative of depression. Most of those with indicative of depression were females, 178 (71.2%), while that number was limited to 72 individuals in males, accounting for 28.8% of the total. In the bivariate analysis, such percentage was significant, denoting that being female was a risk factor for the manifestation of depressive symptoms ($p = 0.009$), **Table 1**.

The predominant age group, in both groups, was 70 - 80 years, with 123 (49.2%) of them in the group with indicative of depression and 367 (50.3%) in the group without indicative of depression. However, there was no association between the highest age group and the existence of indicative of depression ($p = 0.510$), **Table 1**.

Regarding marital status, widowhood was greatly reported by the portion of elderly persons with indicative of depression, 114 (45.6%), and living with companion, by those without indicative of depression, 319 (43.7%), **Table 1**.

Regarding education, there was a higher proportion of elderly persons with 1 - 5 years of study in both groups: 144 (57.6%) of subjects with indicative of depression and 405 (55.5%) without indication of depression. It was evidenced that lower education was linked to the presence of depressive symptoms, and this difference was significant when compared with elderly persons without indicative of depression ($p = 0.008$), **Table 1**.

Similarly in both groups, individual income of up to one minimum wage prevailed, namely, 152 (60.8%) individuals among those with indicative of depression and 350 (47.9%) among those without indicative of depression. The bivariate analysis was significant, demonstrating that the lower income was associated with the presence of depressive symptoms ($p < 0.001$), **Table 1**.

Regarding the ADLs, 23 (9.2%) of the individuals presented dependence in the group with indicative of depression, and most of them, 16 individuals (6.4%), reported the occurrence of dependence in the six functions. Similarly, in the group without indicative of depression, of the total of dependent elderly persons, 20 (2.7%), most of them, 15 individuals (2.0%), said to possess a functional incapacity. Elderly individuals with indicative of depression had higher functional incapacity to carry out the ADLs than those without indicative of depression, and this difference was significant ($p < 0.001$), **Table 2**.

Contrary to the higher occurrence of independence for the ADLs among the elderly, the measurement of functionality for the IADLs showed the prevalence

Table 1. Frequency distribution of the sociodemographic and economic variables and their associations, according to the indicative of depression of elderly residents in the urban area of Uberaba/MG—Brazil, 2013.

Variables	Indicative of depression						*X ²	p
	Total		Yes		No			
	N	%	N	%	N	%		
Gender								
Female	631	64.4	178	71.2	453	62.1	6.792	0.009
Male	349	35.6	72	28.8	277	37.9		
Age group								
60 - 70	283	28.9	68	27.2	215	29.5		
70 -80	490	50.0	123	49.2	367	50.3	1.345	0.510
80 or more	207	21.1	59	23.6	148	20.3		
Marital Status								
Never married or lived with a partner	48	4.7	15	6.0	33	4.5		
Live with a spouse or partner	418	42.7	99	39.6	319	43.7	3.572	0.312
Widow	411	41.9	114	45.6	297	40.7		
Separated/divorced	103	10.5	22	8.8	81	11.1		
Education								
Illiterate	212	21.6	66	26.4	146	20.0		
1 - 5 years	549	56.0	144	57.6	405	55.5	9.725	0.008
5or more	219	22.3	40	16.0	179	24.5		
Individual Income								
No income	75	7.7	25	10.0	50	6.8		
Upto1minimumwage	502	51.2	152	60.8	350	47.9	20.04	<0.001
>1 minimum wage	403	41.1	73	29.2	330	45.2		

*Pearson's chi-square association coefficient.

Table 2. Frequency distribution of the variables of functional capacity and their associations with the indicative of depression in elderly residents in the urban area of Uberaba/MG—Brazil, 2013.

Variables	E = Indicative of depression						*X ²	p
	Total		Yes		No			
	N	%	N	%	N	%		
ADLs^a								
Dependent	43	4.4	23	9.2	20	2.7	18.52	<0.001
Independent	937	95.6	227	90.8	710	97.3		
IADLs^b								
Dependent	689	70.3	202	80.8	487	66.7	18.05	<0.001
Independent	291	29.7	48	19.2	243	33.3		

a. Activities of Daily Living, b. Instrumental Activities of Daily Living. *Pearson's chi-square association coefficient.

of dependence, corresponding to 202 (80.8%) of the individuals in the group with indicative of depression and 487 (66.7%) among those without indicative of depression. The findings indicated that there was association between functional incapacity to carry out IADLs and the presence of depressive symptoms ($p < 0.001$), **Table 2**.

In relation to the level of physical activity, in both groups there was a predominance of sufficiently active individuals. However, among those with depressive symptoms, 94 (37.6%) were insufficiently active, and in those without indicative of depression such percentage was lower, 224 individuals (30.7%) The bivariate analysis was significant, demonstrating that lower levels of physical activity were associated with the presence of the indicative of depression ($p = 0.044$), **Table 3**.

We highlight that, among the four domains assessed by the IPAQ (physical activity at work; as a means of transport; when carrying out household chores; and as recreation, sport, exercise and leisure), those that contributed most to the insufficiency between the elderly with and without indicative of depression were physical activity at work and physical activity as recreation, sport, exercise and leisure. On the other hand, the domain with the most minutes spent was related to household chores.

Regarding the total number of morbidities, we obtained, in both groups, the prevalence of five or more problems, corresponding to 76.4% among those with indicative of depression and 53.6% among those without indicative of depression. The difference was significant ($p < 0.001$), so that multiple morbidities were associated with the indicative of depression.

4. Discussion

The higher incidence of depression among female individuals corroborates with studies in Brazil and in the world [1] [5]. This fact may be associated with higher life expectancy of women compared to the male population, demonstrating the feminization of aging [19] [20]. Additionally, several hypotheses justify the predominance of the female gender, such as the hormonal changes in menopause, as well as beginning of early medical follow-up, health life habits and greater adherence to activities that prevent diseases [21].

Table 3. Frequency distribution of the variables of level of physical activity and their associations, according to the indicative of depression of elderly residents in the urban area of Uberaba/MG—Brazil, 2013.

Variables	E = Indicative of depression						*X ²	p
	Total		Yes		No			
	N	%	N	%	N	%		
Level of Physical Activity								
Insufficiently active	318	32.4	94	37.6	224	30.7	4.063	0.044
Sufficiently active	662	67.6	156	62.4	506	69.3		

*Pearson's chi-square association coefficient.

The lack of association between age group and the indicative of depression in this investigation is similar to the systematic review that has identified inconsistent results regarding this relationship [5]. However, it is assumed that the addition of depressive symptoms at the end of life is strongly associated with loneliness, dependence and lack of social network support [10]. The estimates indicate that more than 50% of the depressive disorders in the elderly represent a new condition resulting from old age [6].

Although there has been no association between marital status and indicative of depression, it is important to consider that the loss of the spouse is related to the manifestation of depressive symptoms, leading to feelings of sadness and loneliness [22].

Regarding education, it should be noted that the number of years of study are considered as protective factor against depression in the elderly, as the greater educational level allows more resources to be used to cope with stressing factors in life and greater access to health services [2] [23] [24].

Regarding functional capacity, there was greater functional incapacity for IADLs among the elderly with indicative of depression than among those without indicative of depression, thus corroborating with the findings of a systematic review which suggests that depression in the elderly may be more associated with functional decline than with biological factors, such as age and gender [5]. Therefore, it is important for the health team to act on aspects related to the functional limitations of elderly persons aiming at preventing functional disability and promoting good functionality.

Regarding the comparison of the level of physical activity according to indicative of depression, a population-based study with 1563 elderly persons in São Paulo/Brazil has identified association between lower prevalence of depression diagnosis and practice of physical exercise [1]. In this study, the domain of physical activity that had the lowest score, in both groups, was in relation to recreation, sports, exercise and leisure ($Md = 0$ min). Possible explanations for this low demand may be related with the predominance of low-income individuals both in the group with indicative of depression and in the group without indicative of depression. Research studies show that less time spent in the domain of physical activity is observed in persons with less economic power, because of little investment in physical activity facilities in the poorest neighborhoods by the public authorities [25].

The highest median found was in the domain of physical activity of household chores, and among those with indicative of depression this value corresponded to 120 minutes and among those without indicative of depression it was limited to 90 minutes. This can be explained by the fact that, in both groups, females were predominant. In this sense, by occupying themselves longer with household chores, it is possible that women refrain from the practice of physical activity of recreational nature.

The study has found that the prevalence of depressive symptoms increases as there is an increase in the number of morbidities. Namely, the values were: 19%

of depressive symptoms in the elderly with no morbidity, 34% in those who had one morbid, 44% among those who had two morbidities and 53% when the number of morbidities was equal to or greater than three ($p < 0.001$) [26]. It is suggested that the prognosis of depressive diagnosis is worsened by the presence of comorbidities, and we should also consider the greater fragility of the defenses that comes from aging. In this way, the association of diseases and functional limitations can impact the mental health of the elderly and hinder the recognition of depression [27], thus requiring greater attention from the health team.

5. Conclusions

The proportion of elderly persons with indicative of depression amounted to 25.5%. In both groups, the highest percentages were concentrated on the female individuals, aged 70 ^ 80 years, with 1 ^ 5 years of education and income of up to one minimum salary. Regarding marital status, widowers were predominant among those with indicative of depression. On the other hand, among those without indicative of depression, the percentage of elderly persons who lived with spouse or partner was higher. Living together was the housing arrangement that was the most reported by the elderly of the two groups. In relation to functional capacity, there was a prevalence of independence to carry out ADLs and dependence for IADLs, in both groups. Similarly, the proportion of sufficiently active individuals was higher, in relation to the level of physical activity. The most recurring number of morbidities was five or more problems, referred by the individuals of both groups.

We highlight that the research is limited to obtaining the data on morbidities through self-report, which may result in misdiagnosis. In addition, the cross-sectional design, adopted in this research, slips in the appointment of causal inferences, not allowing us to explore the relations of causality between the variables studied.

Nevertheless, we can conclude that there is a need to focus on the development of public policies and the implementation of health promotion strategies aimed at the elderly population, intervening in the risk factors for the manifestation of depressive symptoms, whose impact on the health of this population seems to be expressive.

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Effectiveness of a Training Program for Improving Public Health Nurses' Attitudes and Confidence in Dealing with Men Who Have Sex with Men

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Abstract

Objective: This study examined the effect of an educational intervention on public health nurses' attitudes and confidence in dealing with men who have sex with men (MSM). In Japan, HIV is primarily transmitted through sexual contact between men, and free HIV testing and counseling are provided by public health nurses. However, because of a lack of education, public health nurses do not often recognize the existence of MSM in daily life. Thus, improving public health nurses' understanding of MSM is crucial. **Methods:** This study used a quasi-experimental design to examine public health nurses' homophobia, confidence in dealing with MSM, and low awareness of MSM in daily life at pre-test, post-test, and 1 and 3 months follow-ups. The intervention comprised a 3-hour training session conducted between November 2012 and September 2013 in the Kinki region. **Results:** A total of 124 public health nurses participated in the training, 117 of which were allocated to the intervention group; 182 public health nurses who did not participate in the training session were allocated to a control group. Homophobia scores had significantly decreased at post-test, and remained at that low level by the follow-up at 3 months (pre-test to post-test; $p = 0.00$, post-test to 1 month; $p = 0.83$, 1 month to 3 months; $p = 0.64$, pre-test to 3 months; $p = 0.00$). Confidence in dealing with MSM and recognition of MSM had significantly increased by post-test; these were also maintained by the follow-up at 3 months (pre-test to

post-test; $p = 0.0$, post-test to 1month; $p = 0.18$, 1 to 3 months; $p = 0.44$, pre-test to 3 months; $p = 0.0$). **Discussion:** While the three-hour training session was short, it was effective for improving attitudes toward MSM and building confidence in dealing with them.

Keywords

Men Who Have Sex with Men, Public Health Nurse, HIV, Test, Training

1. Introduction

In Japan, the major route of HIV transmission is sexual contact, particularly male-to-male homosexual contact: In 2015, among the 1006 newly infected HIV cases, 691 (68.7%) were the result of male homosexual contact. Altogether, male-to-male homosexual contact was the transmission route for 10,379 HIV cases (58.0%) and for 3215 AIDS cases (39.8%) [1].

The Ministry of Health, Labour and Welfare revised the national AIDS prevention guidelines in 2012. The guidelines indicate that specific measures should be taken to ensure that men who have sex with men (MSM) receive appropriate health care services, as these services are currently lacking for them. To fill the gap in services, the guidelines recommended improving the quality of HIV counseling and testing services for MSM and better encouraging behavioral change [2]. Earlier, Japan began offering free and anonymous HIV tests and counseling at public health centers in all prefectures. Such counseling and testing services are well known to MSM, with around 50% of MSM having utilized this service at health centers [3].

In public health centers, public health nurses tend to be responsible for conducting pre-test counseling and negative result notification. When the results are positive, the doctor is responsible for the positive result consultations, while public health nurses provide psychosocial care and information. The quality of public health nurses' pre-test counseling and result notification has been found to influence the preventive and care seeking behavior of patients after positive result notification [4]. However, problematically, public health nursing education does not place much emphasis on HIV education. HIV is typically regarded as part of infection control education, which prioritizes epidemic diseases such as Zika fever, measles, and tuberculosis because of their potential to rapidly spread across entire communities. The establishment of clear treatment plans and the rather small at-risk population have made HIV education a low priority. Furthermore, such education typically focuses on the virology and pathophysiology of the disease. Public health nurses must undergo both the basic nursing education and specialized education for public health nurses. In the former curricula, sexuality is often taught in the context of maternal nursing [5] and reproduction, and thus focuses on heterosexual patients. For that reason, after graduation, public health nurses are under-informed of the diversity of sexuality

and health problems of MSM and thus are ill equipped for their treatment. Public health nurses also do not readily recognize homosexual patients. One survey of MSM on the conditions of HIV testing and counseling showed that public health nurses often provide counseling under the preconception of the client being a heterosexual man [6].

Based on this background, this study examined whether a training session could improve recognition and deepen understanding of MSM in daily settings among Japanese public health nurses. It is assumed that this would improve care for MSM.

2. Background

2.1. HIV Care and Homophobia among Health Care Providers

According to the United Nations Population Fund, in 2014, MSM accounted for 8% of all new HIV infections globally. It further recommends that health care provider create a safe and supportive relationship with MSM, given their high risk of experiencing stigma or discrimination in accessing health care services; indeed, homophobic attitudes by health care providers dissuade MSM from HIV testing and prevention behavior [7].

Homophobia among health care providers and its related factors have been explored empirically since the 1990s. The identified factors related to attitudes toward homosexuality differ according to religion and culture. Religion has been demonstrated to influence homophobic attitudes in England, Malaysia, and Taiwan [8] [9] [10], while high education levels relate to less homophobic attitudes among nurses and nursing students [10] [11]. Nurses with homosexual friends or relatives and who had experience in treating homosexual people were more likely to have positive attitudes toward homosexuality. In contrast, nurses who had had more work experience and labeled themselves as heterosexual were more likely to adopt negative attitudes [10].

It has been argued that education is best suited to reducing the homophobic attitudes of health care workers and students. This could involve curriculum changes that promote cultural diversity and sensitivity and increasing clinical exposure to MSM [9]. However, there are only two interventional studies for college students [12] [13], and only one for reducing homophobic attitudes among nurses in the United States [14]. In Japan, there are not yet any interventional studies on this topic.

2.2. HIV Care and Public Health Nurses' Attitudes toward MSM in Japan

In Japan, public health nurses play vital roles as entry points of HIV care for MSM. There has been no research on homophobic attitudes among Japanese public health nurses. While there are some in other Asian countries, they cannot simply be applied to Japan because of differences in culture and epidemiological conditions. While there are numerous training programs on HIV testing for providers in Japan, no studies have measured their outcomes.

Researchers conducted a survey to grasp the actual situation of HIV testing and perceptions of counseling among 1535 public health nurses in the Kinki region in 2011 [15]. The majority (52.8%) reported perceiving numerous or some difficulties regarding HIV/AIDS services, despite having work experience in HIV/AIDS. Regarding their encounters with MSM during practice, 49.3%, 13.5%, and 36.8% reported “yes”, “no”, and “don’t know”, respectively. In other words, public health nurses have difficulty recognizing MSM in daily practice.

Recently, MSM have become more visible because of homosexual personalities’ and celebrities’ disclosing their sexual orientation and media reports about homosexuality. However, Inaba [16] noted that heterosexual people have inaccurately portrayed homosexuality and the reality of living with it in media reports, which might make it difficult for public health nurses to understand the daily lives of MSM.

2.3. Research Questions

This study was conducted to answer the following specific research questions:

- 1) Does participation in the training program change Japanese public health nurses’ homophobic attitudes, confidence in dealing with MSM, and recognition of MSM in daily practice?
- 2) How do the training-related effects in these variables change over time?

3. Methods

3.1. Design

This study was a quasi-experimental design, measuring the above variables in two groups (intervention and control) at four time points: pre-test, post-test, and follow-ups at 1 and 3 months.

3.2. Setting and Participants

The Kinki region, which is located in mid-west Honshu, is the second largest urban and economic area. It comprises six prefectures. Since 1998, the number of reported HIV cases has increased in the Kinki region; annually since 2004, the number of reported cases in this region has been the second largest after Tokyo. Furthermore, in 2015, among the 47 prefectures in Japan, Osaka prefecture, which is in the central Kinki region, had the second largest number of reported cases of HIV (168 cases), while Hyogo prefecture had the tenth (21 cases); Tokyo had the largest (364 cases) [1]. **Figure 1** shows the flow chart describing the numbers of participants who responded and did not respond. As of this study, the Kinki region had 174 health centers. The participants were recruited by cooperating with the prefectural divisions of infectious disease control and prevention in the Kinki region. Each prefectural division asked each health centers to participate in the study. Health centers that agreed to participate selected at least one full-time public health nurse for the training session as well as other nurses who would not participate; the former were allocated to the intervention group, and the latter to the control group. The ratio of intervention to control partici-

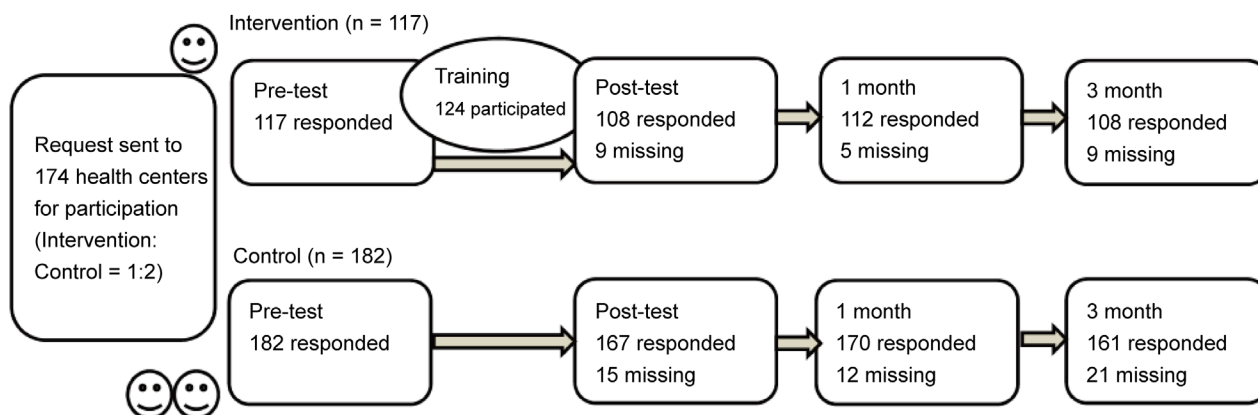


Figure 1. The flow chart describing the number of participants who responded and did not respond.

pants was 1:2 in each health center. This study aimed to provide an exhaustive survey of the whole Kinki region. In 2009, the number of public health nurses was 2235, and this study sought to recruit more than 10% (more than 225) of this number in total. From the perspective of feasibility and training quality, the estimated maximum number of participants who could participate in the training was around 130. In contrast, for control group participants, it was assumed that there would be a 50% of dropouts until 3 months follow-up.; thus, the ratio of intervention to control participants at each health center was set to 1:2. Participation in the training was voluntary. The analyzed sample included all participants who responded to the pre-test questionnaire. The participants who did not respond to the pre-test questionnaire were excluded because their characteristics would not be accessible. Similarly, the participants who did not respond to the questionnaire at each time (because they were busy, forgot, or had transferred) were excluded.

3.3. Intervention

Table 1 shows the training objectives, content, and teaching strategies. Instructors and facilitators comprised a midwife specializing in nursing education, a sociologist, a pedagogist, a psychologist specializing in health issues of MSM, and a medical social worker. The training was designed to improve recognition and deepen understanding of MSM in daily practice. The training format was a 3-hour workshop comprising lectures combined with discussion in small groups of 5 or 6 participants. Before training, a simulated training session was held with imitation participants to confirm that the time allocation, contents, and participant responses were appropriate.

The training contents were based on the findings of 2011 study. In that survey, many public health nurses reported wanting lectures from MSM on their daily lives. Unfortunately, this was not included in the actual training session in the study. Instead, the researchers aimed to improve recognition of MSM in daily settings by presenting statistics on the proportion of lesbian, gay, bisexual, and transgender (LGBT) in the total population of Japan (7.6%) [17]. The psycho-

Table 1. Training objectives, content, and teaching strategies.

Theme	Time allocation	Objective	Contents	Teaching strategy	
Introduction	45 min	Introduction to training and sharing training objectives	Explanation of training background and sharing training objectives	Lecture with slides, presented by an author	
		Create a safe environment to talk about sensitive topics such as sexuality and individual perceptions of sex	Sharing the ground rules of the training: (1) Protection of participants' personal information, (2) respect others, (3) do not criticize others.	Lecture with posters, presented by a pedagogist, and an ice-breaker activity	
		Create a positive learning environment			
MSM	110 min	1. Obtain knowledge their own attitudes toward MSM	(1) Verbalizing attitudes (both positive and negative) toward MSM; (2) Classifying personal attitudes toward MSM and attitudes as a public health nurse	Individual work facilitated by a pedagogist	
		2. Share images with other participants, relativize attitudes, and encourage recognition of their own perceptions of MSM	Sharing ideas on attitudes toward MSM via small group discussion, understanding the differences in such attitudes, and relativization of own perceptions with those of others.	Group discussion facilitated by a pedagogist	
		3. Describing the daily lives of MSM	(1) Definitions of sexuality and sexual minorities, proportion of MSM in the general population (7.6% of the general population of Japan); (2) Health issues among homosexual people (e.g., mental health, alcohol and drug abuse, risky sexual behavior, suicide attempts); (3) life difficulties of MSM (e.g., friendless in school, existence of heterosexual role trouble, strong need for psychological counseling); (4) required attitudes of health care providers for dealing with MSM; and (5) required support for MSM.	Lecture with slides, presented by a psychologist, and a question and answer session	
		4. Imagine the difficulties relating to health and daily life of MSM			
		5. Describe public health nurses' supportive role for MSM			To improve understanding of MSM's daily lives, we introduced movies, comics, and YouTube videos about MSM.
		6. Understand the existence of informational resources for supporting and understanding MSM			Local resources list of necessary information for dealing with MSM, such as the contact address and website of nonprofit organization supporting MSM (e.g. PLWHA) in each prefecture, as well as downloadable research reports on MSM and brochures for MSM from the PLWHA, and a list of the novels, movies, YouTube videos that offer information on the daily lives of MSM.
		7. Share own attitudes about MSM based on knowledge acquired from the training.	Based on their experiences of sharing the perceptions of MSM in small-group discussions, the knowledge gleaned from lectures on MSM, recapitulation of their own perceptions of towards MSM (especially negative attitudes) through the training, has anything changed?	Individual work facilitated by a pedagogist	

MSM, men who have sex with men; PLWHA, People Living with HIV/AIDS.

logical background and health issues of MSM were also covered, and participants were introduced to cinema, comics, and YouTube videos about MSM.

Morrissey and Rivers mentioned that to provide high quality care to LGBT clients, nurses and other health professionals must closely examine their own feelings and attitudes concerning homosexuality [17]. Thus, participants were asked to reflect on their attitudes towards MSM and encouraged group discussions to share their feelings and attitudes. The training comprises a combination of group discussions, lectures, and individual work to prompt participant inte-

rations and relativization of their attitudes. The researchers also distributed a local resource list of necessary information to deal with MSM, such as the contact address and website of a nonprofit organization supporting MSM, People Living with HIV/AIDS (PLWHA), in each prefecture.

3.4. Data Collection

The training program was held 8 times in total, at least once in each of the six prefectures of the Kinki region, between November 2012 and September 2013. Since there were numerous public health nurses in Osaka and Hyogo prefectures, the training was conducted twice in these prefectures to improve its coverage. Before the training, the pre-and post-test questionnaires were sent to the participating health centers, which then distributed these questionnaires to the public health nurses of both groups. The questionnaires were all anonymous, and participants completed them by themselves. The questionnaires were collected in each center and returned to the authors after the training. The follow-up questionnaires were sent at 1 and 3 months after the training program ended, and data collection was conducted in the same manner at follow-up as at the first two administrations. To identify the respondents and match questionnaires at each time point, ID number seals were distributed at pre-test and participants were asked to apply the seal to each questionnaire completed. If participants lost their ID seal, their mothers' names could be written to enable matching.

3.5. Measures

3.5.1. Sociodemographic Variables

Sociodemographic background variables included age, sex, education level, years of experience as a public health nurse, experience of previous contact/interaction with MSM, and previous sexuality training.

3.5.2. Attitudes toward Homosexuality

The Japanese version of the Index of Homophobia (JIHP) was used to assess public health nurses' attitudes toward homosexual people [18]. The original scale was developed by Hudson and Ricketts [19]. Kaji determined the JIHP's reliability using the Cronbach's alpha coefficient (0.9147). This scale was chosen for its high reliability and focus on attitudes toward homosexuality rather than on participants' cognitive and emotional responses to them. The scale comprises 25 items (e.g., "You would be uneasy in a group of homosexual individuals" and "I would feel disappointed if I learned that my child was homosexual"). These were answered on a 5-point scale with response options of 0 (strongly agree), 1 (agree), 2 (neither agree nor disagree), 3 (disagree), and 4 (strongly disagree), with higher scores indicating more homophobic attitudes. Scores of 0 - 25 indicate non-homophobic, 26 - 50 indicate moderately non-homophobic, 51 - 75 indicate moderately homophobic, and 76 - 100 indicate homophobic. The reliability (Cronbach's alpha) of the JIHP in this sample was 0.92 at pre-test. Missing JIHP scores were replaced using mean substitution if at least half of the items were completed.

To measure confidence in dealing with MSM, a one-item measure was developed for this study. The item was “Do you have confidence in dealing with MSM or people who you believe to be MSM?” This was answered on a 4-point scale, with response options of 4 (very confident), 3 (confident), 2 (not so confident), and 1 (not at all confident). Higher scores indicated high confidence in dealing with MSM.

To measure recognition of MSM in daily practice, another one-item measure was developed. This item was “Do you think that there are MSM among your family, relatives, friends, and colleagues, or anybody else you are familiar with?” The 4-point scale used to rate this item included response options of 4 (must be), 3 (might be), 2 (might not be), and 1 (might not be). Responses of “must be” and “might be” were grouped as “yes” and those of “might not be” and “must not be” were grouped as “no”.

3.6. Ethical Consideration

The study protocol was approved by the institutional review board of the researchers’ university and six prefectures in the Kinki region. Both instructors and participants agreed to protect the personal information of participants and respect others at the beginning of training session. All public health nurses in the in Kinki region who did not participate in the training were given a pamphlet of the training contents. All participants responded to the questionnaire voluntarily, and their consent was implied by the return of the questionnaires. The first and fifth authors take complete responsibility for the integrity of the data and the accuracy of the data analysis.

3.7. Statistical Analysis

All statistical analyses were conducted using IBM SPSS Statistics 23.0. Data were analyzed using both descriptive and comparative statistics. Baseline differences in categorical and continuous variables between intervention and control groups were tested using the chi-square test and Student’s t-test, respectively. The Mann-Whitney U test was used to compare the scores for the recognition of MSM measure between the intervention and control group. Differences in scores on the JIPH and confidence in dealing with MSM measure between each time point (pre-test, post-test, 1 and 3 month follow-ups) were examined for significant differences using paired t-tests, and Wilcoxon’s signed-rank test was used to examine changes in scores for the recognition of MSM measure. The threshold for significance was $p < 0.05$.

4. Results

One hundred twenty-four public health nurses ultimately participated in the training, of which 117 were analyzed (and thus formed the intervention group). The control group comprised 182 public health nurses who responded to the pre-test questionnaire.

4.1. Participant Characteristics

Table 2 shows the sociodemographic characteristics of the participants. Intervention group participants were significantly younger than were control group participants ($t(292) = -2.487, p = 0.02$), and the intervention group had significantly less experience as public health nurses ($t(291) = -2.273, p = 0.11$). There were significant differences between the groups regarding the experience of dealing with MSM ($\chi^2 = 4.325, df = 1, p = 0.04$). None of the other sociodemographics significantly differed between the groups.

4.2. Main Outcome Measures at Pretest

Table 3 shows the main outcome measures at pre-test. There were no significant

Table 2. Sociodemographic characteristics of study subjects at pre-test.

	All participants (N = 299) (%)		Intervention (N = 117) (%)		Control (n = 182) (%)		p
Sociodemographic background							
Age							
Range	23 - 61		23 - 60		24 - 61		
Mean (SD)	38.9	(10.6)	37.2	(10.1)	40.1	(10.9)	0.02 ^a
Median	38		35		40		
Sex							
Female	287	(97.4)	114	(97.4)	173	(95.1)	0.3 ^b
Educational status							
Diploma	124	(41.5)	48	(41.0)	76	(41.8)	0.65 ^b
Associate degree	32	(10.7)	14	(12.0)	18	(9.9)	0.84 ^b
Bachelor's degree	110	(36.8)	48	(41.0)	62	(34.1)	0.35 ^b
Master's degree	16	(5.4)	5	(4.3)	11	(6.0)	0.45 ^b
Years of experience as a public health nurse							
Range	0 - 39		0 - 38		0 - 39		
Mean (SD)	14	(11.0)	12	(10.2)	15.3	(11.4)	0.01 ^a
Median	11.5		8		15		
Have contact/interacted with MSM	135	(45.2)	62	(53.9)	73	(41.5)	0.04 ^b
Have received sexuality training	167	(55.9)	68	(59.6)	99	(57.6)	0.72 ^b

a Two-group T test and b Chi-Square test.

Table 3. Main outcome measures at pre-test.

	Intervention (n = 117) (%)		Control (n = 182) (%)		p
JIPH: Attitudes toward homosexuality (SD)	39.1	(12.2)	41.5	(14.7)	0.15 ^a
Confidence in dealing with MSM (SD)	1.84	(0.61)	1.88	(0.67)	0.6 ^a
Recognition of MSM in daily practice (SD)	0.59	(0.49)	0.51	(0.50)	0.17 ^b

^aTwo-group t-test and ^bMann-Whitney U test.

differences between the groups in JIPH scores ($t(294) = -1.457, p = 0.15$), confidence in dealing with MSM ($t(294) = -0.523, p = 0.60$), or recognition of MSM in daily life ($U = 9542, p = 0.17$). Thus, there were no significant differences regarding the primary measures at pretest between the two groups.

4.3. Chronological Changes in Outcomes

Table 4 shows the means and standard deviations of all main outcome measures at pre-test, post-test, and the follow-ups (1 and 3 months). Regarding the JIPH scores, there was a significant decrease between pre-test and post-test and between pre-test and the follow-up at 3 months in both groups (intervention group: pre- to post-test, $t(106) = 6.32, p = 0.00$, pre-test to 3 months, $t(106) = 5.86, p = 0.00$; control group: pre- to post-test, $t(162) = 2.91, p = 0.0$, pre-test to 3 months, $t(162) = 4.04, p = 0.00$). However, there were no significant differences between post-test and 1 month, or between 1 and 3 months in either group (intervention group: post-test to 1 month, $t(106) = 0.22, p = 0.83$, 1 to 3 months, $t(106) = 0.473, p = 0.64$; control group, post-test to 1 month, $t(162) = 1.42, p = 0.16$, 1 to 3 months, $t(162) = 1.13, p = 0.26$).

Regarding the confidence in dealing with MSM, in the intervention group, there were significant differences in the mean scores between pre-test and post-test ($t(105) = 5.77, p = 0.00$), and between pre-test and the follow-up at 3 months

Table 4. Means and standard deviations for all variables at pre-test, post-test, and follow-up (1 and 3 months) in intervention and control groups.

JIPH scores (SD)	Intervention		t and p ^a	Control		t and p ^a
Pre-test	39.0 (12.2)	Pre to post	$t(106) = 6.32, p = 0.00$	41.5 (14.7)	Pre to post	$t(162) = 2.91, p = 0.004$
Post-test	34.6 (11.4)	Post to 1 month	$t(106) = 0.22, p = 0.83$	40.3 (13.8)	Post to 1 month	$t(162) = 1.42, p = 0.16$
1 month	34.7 (12.5)	1 to 3 months	$t(106) = 0.473, p = 0.64$	39.4 (14.2)	1 to 3 months	$t(162) = 1.13, p = 0.26$
3 months	34.2 (11.5)	Pre to 3 months	$t(106) = 5.86, p = 0.00$	39.2 (14.2)	Pre to 3 months	$t(162) = 4.04, p = 0.00$
Confidence in dealing with MSM (SD)						
	Intervention		t and p ^a	Control		t and p ^a
Pre-test	1.84 (0.62)	Pre to post	$t(105) = 5.77, p = 0.0$	1.88 (0.66)	Pre to post	$t(163) = 1.78, p = 0.77$
Post-test	2.11 (0.55)	Post to 1 month	$t(106) = 1.35, p = 0.18$	1.96 (0.67)	Post to 1 month	$t(152) = 0.49, p = 0.62$
1 month	2.16 (0.58)	1 to 3 months	$t(106) = 0.77, p = 0.44$	1.95 (0.68)	1 to 3 months	$t(153) = 0.391, p = 0.69$
3 months	2.19 (0.55)	Pre to 3 months	$t(106) = 7.36, p = 0.00$	1.98 (0.68)	Pre to 3 months	$t(157) = 2.05, p = 0.04$
Recognition of MSM in daily practice						
	Intervention		z and p ^b	Control		z and p ^b
Pre-test	59.5%	Pre to post	$z = -3.13, p = 0.002$	51.4%	Pre to post	$z = -1.89, p = 0.06$
Post-test	73.1%	Post to 1 month	$z = 0.0, p = 1.0$	56.4%	Post to 1 month	$z = -0.56, p = 0.58$
1 month	71.8%	1 to 3 months	$z = -0.54, p = 0.59$	58.2%	1 to 3 months	$z = -0.41, p = 0.68$
3 months	73.8%	Pre to 3 months	$z = -3.27, p = 0.001$	59.0%	Pre to 3 months	$z = -2.04, p = 0.04$

^aTwo-group T test and ^bWilcoxon sign rank test.

($t(106) = 7.36, p = 0.00$). The other comparisons were not significant. These results imply that confidence increased after training and remained high at 3 months after the training. In the control group, there was a significant differences in mean scores between pre-test and 3 months ($t(157) = 2.05, p = 0.04$). The other comparisons were not significant.

Regarding the recognition of MSM in daily life, in the intervention group, there was a significant difference in scores between pre-test and post-test ($z = -3.13, p = 0.002$) and between pre-test and follow-up at 3 months ($z = -3.27, p = 0.001$); none of the other differences were significant. Thus, the significant increase in recognition of MSM was maintained between post-test and the follow-up at 3 months. In the control group, there were no significant differences in scores except for an increase between pre-test and the follow-up at 3 months ($z = -2.04, p = 0.04$).

5. Discussion

The study aim was to examine the effect of a training session on recognition and understanding of MSM in daily life among Japanese public health nurses, to improve their ability to care for MSM.

5.1. JIPH Scores

There were no significant differences in JIPH scores between the intervention and control groups at pre-test. However, in the intervention group, there were significant decreases in JIPH scores between pre-test and post-test and between pre-test and the follow-up at 3 months. The same changes were observed in the control group. The JIPH mean scores were 39.0 and 41.5 at pre-test in the intervention and control groups, indicating that the sample was moderately non-homophobic. Compared to Japanese graduate students in psychology, the present sample was less homophobic (55.97 for male, 51.44 for females) [20], while compared to American social workers, the sample of this study was almost the same (39.7 for males and 37.6 for females) [21].

The result showed that the JIPH score significantly decreased from pre-test to post-test, and that these changes were maintained until 3 months after the training session in both groups. The results for the intervention group might indicate an intervention effect on homophobic attitudes. Importantly, the JIPH scores for the intervention group decreased more than did the control group scores. In contrast, the decrease for the control group may have been learning effects—namely, responding four to the same questionnaire—and perhaps reports by colleagues who participated in the training. Adding to the interpretation is that the intervention group also answered an open-answer question about their changes in attitudes toward MSM after the intervention. One participant noted that, “After the training, my attitudes toward MSM drastically changed, from [being] ‘strange people’ to the ‘same as us’”.

There have been few studies of interventions aiming to reduce homophobic attitudes [22]. In one previous interventional study for nurses in the United

States, a 1-hour infomercial had no effect on homophobic attitudes [14]. Another study on college students used a 45-minute video about homosexuality and lectures and discussion with homosexual people in the classroom, and then compared its effect with that of control students. However, no decrease in homophobic attitudes in either group was observed [13]. There was, however, a significant decrease in Index of Homophobia (IHP) scores after graduate and undergraduate students took a human sexuality course in university in another study [12]. The results of this study suggest a significant decrease and maintenance of this decrease in JIPH scores, even though the intervention was very short. Nevertheless, a relatively long-term decrease in homophobic attitudes was still observed, even though the lectures were given by psychologists rather than MSM themselves.

Often, interventional studies on health care providers who deal with HIV use stigma about HIV-positive patients as the outcome. As noted above, only a few HIV interventional studies have used homophobia as the outcome. One previous study compared the effects of an educational program providing knowledge of AIDS and a program that combined this AIDS-knowledge education with contact with people with HIV/AIDS among nursing students in China. The results showed that the group who underwent the combined program exhibited a significant decrease in stigmatizing attitudes at post-test; however, this decrease did not last until the follow-up at 6 weeks [23]. Taken together, despite the possible influence of learning effects for the questionnaires, the current results could demonstrate that the training led to decreased homophobic attitudes in the long-term.

5.2. Confidence in Dealing with MSM

There were no significant differences between the two groups at pre-test. In the intervention group, there were significant increases in scores between pre-test and post-test, and this increase was maintained by the 3-month follow-up. This implies that confidence increased after training. In the control group, there was a significant increase between pre-test and the follow-up at 3 months. The reasons for this increase could be similar to those for the JIPH—namely, learning effects and colleague reports.

As mentioned previously, there is very little research on confidence in dealing with MSM, which is a novel aspect of this study. The training session did not feature a lecture by an MSM speaker; instead, the importance of getting to know more about MSM was stressed, and statistics on MSM's daily lives and health issues were provided. Furthermore, comics and other resources to help others inform the reality of MSM were introduced and a local resource list was distributed during the training. These more active, stimulating learning methods might have built their confidence to a greater degree than merely attending a lecture by an MSM speaker as passive participants.

Several intervention group participants wrote in the open-answer section on attitudes toward MSM, "Before the training, I was obsessed with whether the

client is an MSM or not”, “Before I was reluctant to ask about a client’s sexual orientation, but now I don’t feel that”, and “At the negative result notification, I am trying to look back with the client on their risky behavior, and give information about prevention, after that, I am trying to think how I can reduce risk with the clients”. These comments suggest that they used what they had learned from the training session. Furthermore, the training advised the nurses to use rather easily implemented strategies, such as the distribution of pamphlets for MSM and avoiding supposing that the client is heterosexual (which may effectively prevent MSM from talking about their sexual behavior) [6]. The importance of creating an atmosphere to help the client talk about their sexual orientation was also stressed in this training. Several open-answer responses revealed that participants did indeed follow these suggestions: “[I] browse the blogs of HIV positive MSM”, “I distribute pamphlets for MSM”, and “[I] planned training about MSM with PHNs who obtained knowledge at the training and sought the support of nonprofit organizations”. Employing these strategies might have contributed to increasing and maintaining their confidence after the training.

5.3. Recognition of MSM in Daily Life

Again, there were no significant differences in recognition of MSM between the two groups at pre-test. However, in the intervention group, there was a significant increase in scores by the post-test and a maintenance of these scores by the 3-month follow-up. The control group demonstrated no change at post-test, but there was a significant increase by the 3-month mark (suggesting learning and colleague effects). The open-answer responses suggested that the training contributed to the increased scores in the former group: “there are many clients with various sexual orientations in HIV counseling and testing, and I understood the importance of creating a comfortable counseling environment for talking about sexual behavior at ease.” In other words, the participant seemed to have learned how to easily acknowledge that people undergoing HIV testing have various sexualities.

During HIV counseling and testing, counselors should provide clients with support to minimize the client’s further risky behavior, in line with that client’s behavior and situation, in order to ensure a reduction in HIV risk [4]. However, if public health nurses do not recognize that their clients are MSM, their counseling would not be as effective because they it would not be tailored specifically for that client’s individual situation. Unfortunately, there appear to be no studies on the recognition of MSM in daily life. This suggests that the findings of this study are novel.

5.4. Limitations

Overall, the results indicate that the three-hour training was effective for improving the attitudes toward MSM and building the confidence. Intervention group participants were significantly younger than were the control group, and had significantly fewer years of experience. At pre-test, there were no significant

differences among the outcomes, which suggests the difference in age and experience had no effect on the outcomes. Nevertheless, this study had some limitations. First, there are limited interventional studies on this topic in Asian countries. Thus, although the findings are likely valuable for improving preventive efforts in Japan, they may be inappropriate for application to other countries because of the difference in epidemiological structures and the nursing profession. Second, random sampling of the participants was not performed in this study. Third, as many public health nurses in the intervention group are involved in treating HIV/AIDS, their daily work after training might have had a learning effect, and thus influenced the results. To deepen current understanding of the findings of this research and manage selection bias in subsequent studies, participants could be stratified. Finally, the precise effects of specific contents of the training on the outcomes were not determined; thus, a deeper analysis of the data is needed to grasp the factors related to the confidence or homophobic attitudes. This would be useful for improving training.

5.5. Implications for Public Health Nursing and Education

As pointed out above, in Japan, the proportion of the total population who are LGBT is 7.6% [24]. It is necessary for nursing professionals to recognize the diversity of sexuality in order to provide better care to this population. It is strongly recommended that the nursing curriculum cover the diversity of sexuality and give nursing students the opportunity to reflect on their attitudes toward sexuality, which can foster a greater awareness and sensitivity to the diversity of potential clients. In Japan, because public health nurses often provide HIV test counseling, it is strongly recommended that they be provided within-service education such as short training sessions to improve their capacity to deal with MSM. However, relatively little is known about the homophobic attitudes of public health nurses in Japan, and what specific educational components will effectively reduce stigma and homophobic attitudes. As such, further research will be needed.

6. Conclusion

The objective of this study was to determine the effect of a three-hour training session on recognition and understanding of MSM in daily life among Japanese public health nurses to provide better care for them. The analysis of the results suggests that there was a significant decrease in homophobic attitudes and a significant increase in confidence in dealing with MSM and realization of MSM in daily settings. These changes were maintained until 3 months.

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Conflict of Interest

The authors declare that no conflict of interest exists concerning this study.

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Pass/Fail and Discretionary Grading: A Snapshot of Their Influences on Learning

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Abstract

This article provides a snapshot of pass/fail and discretionary grading approaches, highlighting the advantages and disadvantages of each. Norm-referenced and criterion-referenced grading practices and their associations with learning are identified. A brief historical backdrop illustrates how grading practices have evolved. The inherent subjectivity of grading is emphasized. Pass/fail grading supports intrinsic motivation and self-direction, but limits opportunities for recognizing excelling students. Discretionary grading, which includes letter (F– to A+) and numeric (0% to 100%) representations, supports extrinsic motivation and self-improvement, but promotes unhealthy competition. Both approaches have merit and can effectively measure student achievement in nursing education programs.

Keywords

Pass/Fail Grading, Discretionary Grading, Norm-Referenced Grading, Criteria-Referenced Grading

1. Introduction

Acquiring the knowledge, skills and attitudes nursing students need to demonstrate competence in their practice is a complex process. Few topics have generated more discussion than the influences that grades can have on student learning. Yet, existing research offers limited evidence that either pass/fail or discretionary grades do adequately measure and influence learning.

Two grading approaches are typically implemented in nursing education programs. The first approach, where students are assigned pass/fail or satisfactory/unsatisfactory, evaluates overall understanding and competence [1] [2] [3]. The second approach, discretionary grading, where students are assigned letters such as F– to A+ or numerical values between 0% and 100% integrates more discriminative information [4].

Lee Cronbach's seminal definition of learning emphasizes that learning is demonstrated when a change in behavior occurs as a result of experience [5]. Clearly, the processes that educational institutions use to grade students are experiences that will influence how they learn and show changes in their behavior. This article provides a snapshot of pass/fail and discretionary grading approaches, highlighting the advantages and disadvantages of each.

2. Grading Practices

2.1. The Purpose of Grading

Educational measurement theorist Peter Airasian defined grades as recognized symbols, the purpose of which are to provide students with feedback about their progress and achievements; to guide students in future course work; to motivate students; and to inform instructional planning [6]. Airasian also emphasized that educational systems rely on grades to determine student rankings in classes, their suitability to progress to the next level; and to graduate [6].

In higher education, grades are usually an aggregate of individual marks from a series of assignments, but they may also be determined from a single major piece of work in a course or unit [7]. In a practice discipline such as nursing, assignments often include both teacher assessment and teacher evaluation. Assessment requires teachers to make inferences about what students' know in relation to what they do, and evaluation requires teachers to make judgements about the value of what students do in relation an objective [8]. Thus, the aggregate of marks within a single grade provides a symbolic representation of overall achievement [7].

2.2. Norm-Referencing

Differentiating between grading practices classified as norm-referenced and those classified as criterion-referenced is a key consideration in understanding the overall grading process. Norm-referenced grading measures student achievement in comparison to peers, ranking them in relation to other students [8]. With norm-referenced grading, in any student group, only a select few will be eligible to earn top grades, most will receive mid-level grades, and at least some will receive failing grades. Norm-referenced grading is based on the symmetrical statistical model of a bell or normal distribution curve [8].

Norm-referenced grading provides programs of study with the opportunity to compare students in a particular location with national norms; to highlight assignments that are too difficult or too easy; to monitor grade distributions such as too many students receiving high or over-inflated grades; and to award scholarships to excelling students [8]. On the other hand, this grading practice is grounded in the premise that one student's achievements, successes and even failures are unfairly dependent on the performances of others [8].

2.3. Criterion-Referencing

Conversely, criterion-referenced grading measures do not include comparisons

with other students. Rather, student achievement is measured in relation to pre-determined criteria [8]. Therefore, all members of student groups are equally eligible to earn top, average or failing grades. The process is transparent and students can make associations between their performance and expected outcomes; and they can link their personal learning needs to opportunities for remediation [8].

Most institutions of higher learning, including those who offer nursing education, now incorporate criterion-referenced grading practices into at least some of their programs [7] [9] [10]. Traditionally, an understanding of where students were ranked in relation to others was believed to communicate useful information to employers, teachers and students; and it was considered a valuable strategy to prevent grade inflation [10]. However, for professional programs, where clear outcomes have been adopted, grades reflecting individual achievement in relation to specific criteria are equally valuable in providing this needed information [10]. Both pass/fail and discretionary grading practices are classified as criterion referenced [7].

2.4. Subjectivity

Subjectivity, where teachers' personal opinions and feelings impact grading, can be expected to affect grading practices in general and criterion-referenced grading practices in particular. In 1912, Starch and Elliot's classic study examining how 147 high school English teachers assigned grades to two identical student papers revealed marks ranging from 50% to 90% for the same paper [11]. Later, in 2011, Brimi replicated the study and obtained strikingly similar results in that 73 high school English teachers assigned marks from 50% to 96% for the same paper [12].

Knowing that subjectivity is likely to occur, strategies geared towards achieving fair measurement of student achievement can be implemented. For example, double-marking, or having more than one teacher assign marks to an assignment is useful [13]. Similarly including peer assessments of student work is valuable [14] [15]. Including opportunities for self-assessment in grading practices is especially important [8] [16]. Melrose, Park and Perry caution that bias can occur in peer assessment when students are hesitant to provide critical feedback to one another and in self-assessment when students overrate their abilities [8].

3. Historical Backdrop

Reflecting on the history of grading provides insight into how practices in use today have evolved. Prior to the late 1800's, when few students advanced beyond elementary school, information about student progress centered on informal communication between student, teachers and parents [17].

By the 1900's, as compulsory high school attendance increased student numbers, and as more students went on to attend university, a shift to percentage grades occurred as teachers and professors accommodated this increase and responded to a need to identify student accomplishments in particular subject

areas [17]. In the 1960's letter grades increased in popularity and remain so today [17].

Grading practices created a way to rank individual student performance, but they also provided opportunities to rank the prestige of academic institutions [18]. Critics have questioned whether grades have evolved more for the benefit of administering and promoting organizations rather than for their intended purpose of providing feedback, guidance and motivation to students [18].

4. Pass/Fail Grading

Pass/fail, as the name implies, provides only two options for grading students. In concert with the shift away from norm-referenced and towards criterion-referenced grading practices, many nursing education programs have incorporated pass/fail measurement of student achievement. Clinical courses are well-suited to pass/fail grading [2].

4.1. Advantages

Pass/fail grading is believed to exert positive influences on learning by supporting students' psychological health and wellbeing [19] [20] [21]. For example, with medical students, this approach has been found to reduce student stress and promote group cohesion [22]. It has reduced competition among students [23]. Further, a pass/fail approach reduced feelings of emotional exhaustion, depersonalization, burnout and the desire to drop out [24]. It did not decrease performance on qualifying examinations [25]. With nursing students, pass/fail grading was influential in supporting students towards providing safer care to their patients, including a reduction in medication errors [26].

The process of grading itself has been criticized for diminishing interest in learning, creating a preference for the easiest possible task, reducing the quality of thinking, increasing cheating and promoting a fear of failure [27]. Although a pass/fail approach, as a classification of grading, is not immune to these criticisms, it is considered to have a less detrimental effect on learning than discriminatory approaches.

Pass/fail grading is purported to increase students' intrinsic or internal motivation to learn. It allows them to pursue areas that are of most interest and relevance to them, rather than focusing only information that will be tested [4]. In turn, this intrinsic motivation lays a foundation for the self-direction and self-regulation required in nursing and all health care disciplines [4].

4.2. Disadvantages

Pass/fail grading can also exert negative influences on learning. Students who have excelled and demonstrated remarkable achievements may not be recognized or differentiated from those who simply met the requirements to pass [19]. This approach may not depict an accurate picture of the specific learning objectives that were mastered and those that need improvement [28].

Pass/fail grading can create situations where students do not perform effec-

tively on critically important objectives, but achieve a passing grade because they have performed well on those of lesser importance [28]. Additional negative influences can include the subtle suggestion that only the bare minimum is needed to pass; a possible decline in student classroom attendance; weakening of academic performance; and a potential decrease in pass rates for regulatory licensing examinations [19] [21] [23].

5. Discretionary Grading

Discretionary grading, which generally uses the letters F– to A+ or numerical values between 0% and 100%, continues to dominate reporting systems, with letter grades the most widely used [17]. Learning institutions frequently add pluses or minuses to letter grades or pair them with percentage indicators in order to enhance their discretionary function [17] [29].

It is beyond the scope of this article to discuss the many additional variations of numbered, lettered and narrative grading scales that institutions from around the world have developed. The lack of a universally accepted approach to grading scales is an illustration of the controversy that continues to surround the processes teachers use in their efforts to measure student achievement and progress.

5.1. Advantages

In many instances, the advantages of discretionary grading reflect a mirror image of the disadvantages of a pass/fail approach. Rather than decreasing motivation, discretionary grading can increase students' desire to perform well academically [4]. Relationships between grades and short term learning, as well as between grades and extrinsic motivation, or motivation emanating externally from others beyond oneself, have been established [30].

Students may have a tendency to take discriminatory grading more seriously [21]. Expecting a grade can increase students' confidence not only in correct answers but also in understanding answers that are incorrect [31]. Improvement demonstrated through a higher grade can help students experience a sense of satisfaction and pride.

5.2. Disadvantages

The extrinsic motivation associated with discretionary grading may not serve students well after they graduate. Grades are not likely to be part of everyday nursing practice and they do not usually factor into the self-regulation required by professional governing bodies.

The inherent ranking of students in relation to one another that is often associated with discretionary grading can create hierarchical categories. Students hoping to continue their education by attending further undergraduate or graduate study programs will need to identify their grades on program applications. The pressure to achieve these grades can be daunting.

Students' social status can be affected as they strive to get grades that are

comparable to or higher than their peers [31]. While healthy competition with peers and oneself may not be problematic, anxiety, depression and inability to absorb material can result when students become overly focused on their grades [1] [19].

Although both letter and numeric discretionary approaches provide a range of grading options, faculty tend to cluster their scores around a portion of the scale instead of utilizing the whole scale [32]. This tendency may be related to how higher education courses usually have a specific minimum pass point, often a C or 60%. This higher pass point has been linked to clustered scores [33]. As a consequence, clustered scores do not fully meet the obligation of discriminating learning achievements among students.

6. Conclusions

In summary, this snapshot of pass/fail and discretionary grading practices highlighted the advantages and disadvantages of the two most commonly used educational measurement tools in nursing education today. As criterion-referenced rather than norm-referenced approaches, both seek to report student achievement in relation to pre-determined criteria. Both are considered inherently subjective.

A brief historical backdrop illustrated how these approaches have been used in different educational settings over time, with neither considered superior. Pass/fail grading, well suited for clinical courses can complement the discriminatory grading widely used by nursing programs in higher education settings.

Pass/fail grading can promote the self-directed, intrinsically motivated learning expected in professional nursing practice and it can support students' psychological health and well-being. However, it limits opportunities for recognizing excelling students.

Discretionary grading, through the extrinsic motivator of earning a high grade, can encourage students to perform better academically. Ranking students on a range of scores between F- and A+ or 0% and 100% provides a clear and recognizable symbol or illustration of their achievements, both in relation to their previous work, their peers and their program outcomes. Yet, the experience of being ranked can lead to unhealthy competition and unnecessary stress.

Despite the attention that the topic of grading students continues to receive among educators, the process is far from exacting. Elements of both pass/fail and discretionary grading have merit as nurse educators strive to fully and accurately represent student achievements. This is both a challenge and an opportunity for the field.

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Nursing Student Engagement: Taking a Closer Look*

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Abstract

Nursing student engagement is a critical and enhancing means of ensuring students stay within their education, and subsequently within the nursing profession. Engaged students with having higher ethical standards and behaviors, are certainly “caring” with their care delivery, and are dependable and competent with their teamwork. These are rewarding aspects of nursing practice. This research evaluates student nurses’ perceptions and their sense of engagement in relation to nursing and their educational experiences.

Keywords

Engagement, Student Nurse Engagement, Nursing Education, Nursing Practice

1. Background

Student engagement has many definitions, and includes time, effort, resources, participation, activities, emotions, and feelings within the context of embracing student learning [1]. Student engagement is a measure for ongoing assessment of the quality of the nursing program and the success of graduation students.

Nursing student engagement is critical for success within nursing programs and with the goal of remaining within the profession *with longevity* once the students graduate. There are three levels to focus on in relation to student engagement: engagement between the student and teacher, the student connection with their learning, and the student linking with their learning environment [2]. Engagement also involves therapeutic engagement which consists of empathy, active listening and collaboration [3]. Nurse educators demonstrate integrity, authenticity, caring, and support for nursing students in efforts to assist their

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learning of appropriate skills and knowledge so they can constructively and “caringly” replicate these practices when they provide care for patients.

Nursing is currently undergoing rapid changes of environments, procedures, and general workforce life. Hospitals are undergoing renovations to establish user-friendly environments. Additionally, care is transitioning to more community-home based settings, away from hospital settings. The ability to use technology to transmit information is critical for these changes. Learning itself is undergoing changes. No longer should didactic lecturing be the main presentation of course materials. Today’s teaching styles involve problem solving activities, team (group) learning and tasking, video presentations and on-line learning, case studies, simulation laboratories, active community projects, and much more. The ability to communicate in different ways to and for students assists in their engagement and content retention levels. Although simulation has become popular and necessary within campuses where clinical sites are few, the actual clinical setting has a stronger effect on enhancing clinical performance than a simulation experience does ([4], p. 156).

Active learning is a component of engaged learning. Active learning can be fostered into discussions. This stimulates students into supporting their points, and at the end, creates a collaborating learning environment. These types of discussions will provide teamwork and group communication skill development which is highly needed within clinical settings. The current trends are urgently transitioning into all on-line learning platforms. Can on-line learning of core interactive nursing skills be as effective as active classroom interactive learning? Are new nurses entering the workforce without adequate and necessary interactive skills required for quality interactions when providing nursing care? Are on-line taught nurses interacting differently in the clinical settings? These are important questions.

The interconnectedness between courses is still in its infancy. As more education is occurring on-line, the speed of delivery of each course and course content can be catered to the individual learner’s capacity. Additionally, experiential learning from job experience can remove some of the redundant learning for some students. These students can test-out of specific courses they are already skilled with and competent in by taking examinations to demonstrate knowledge already gained.

Students need to develop engagement with their studies which will carry over into their clinical practice. Engagement with the clinical environment has its own challenges and rewards. The preceptors perform vital roles in demonstrating quality care and positive interactions with patients. With support provided to students when they are learning and reflecting on the care they are giving, they develop critical skills core for successful nursing, and positive affects toward encouraging their patients toward better wellness. This is also important on an individual level. Stress management, relaxation techniques, and reflection are all strategies to assist to effectively decrease stressors and increase the sense of engagement [5]. These should be basic parts within a nursing program.

Nursing educational settings are developing their infrastructures to support and emphasize EBP and evidence-based decision-making (EBDM). These focuses are key engagement stimulants toward caring for their care delivery and providing quality within the nursing student-to-patient interactions. Engaged students (future nursing staff) are fundamental to providing appropriate and high quality of care. However, work is still underway with trying to find the best means to stay updated with current releases of best evidence. Getting these advances efficiently into clinical practice remains a challenge. Hospitals with commitment to developing their nurses have developed practice councils, evidence-based practice (EBP) councils, and other forms for updating and delivering best practice to the bedside. Student nurses need exposure to these implementation formats to become more aware of and influential with patients and families as changes occur and advances are put into place within the clinical settings.

The traditional values of nursing *remain* core to nursing student education. According a study by Tuckett [6], student nurses, “love nursing because they find the work in and of itself dynamic and having for them an instrumental value... (they) love nursing because it is defined by who they care *for* and also who they care *about*. That is, the people: client, patient, family, workmate (p. 260)”. Maintaining these caring attitudes during their nursing careers provides a foundation for ‘quality caring’ care delivery. One of the challenges of nursing education is developing resilience so students can maintain their senses of caring and engagement [7]. Resilience is linked to engagement.

2. Methods

This study further expands previous research investigating student engagement. [8], by now including an additional (same university) campus. This study was approved by the university’s Institutional Review Board and the nursing department’s leadership. The samples are from second and fourth level nursing students at two undergraduate nursing sites of an eastern Texas University. These campuses are labeled Site A and Site B. All students registered and participating in the class were eligible to participate in the survey. There were no exclusions for this survey. Students carried out their usual nursing education as per requirements, and subsequently filled out student engagement questionnaires, in a post-test format, to identify their levels of engagement with their nursing courses to date. The Student Engagement Questionnaire [9] [10] [11] includes 35 questions, with responses marked on a one to five Likert scale. The questionnaire concludes with 2 short open-ended qualitative questions about: 1) “What are the best aspects of the program?”, and 2) “What aspects are in most need of improvement?”. There were no anticipated negative effects related to filling out the survey form. Analyses including descriptive, statistical factorial ANOVA, and qualitative review were utilized when comparing results.

3. Findings

This study’s findings (see **Table 1**) include the following responses to the fol-

Table 1. Survey Answers for Level 2 and Level 4 for Each Campus.

Questions	Site A level 2	Site A Level 4	Site B Level 2	Site B Level 4
1. I have developed my ability to make judgments about alternative perspectives	4.6	4.2	4.4	4.5
2. I have become more willing to consider different points of view	4.8	4.4	4.6	4.7
3. I have been encouraged to use my own initiative	4.6	4.6	4.5	4.6
4. I have been challenged to come up with new ideas	4.8	4.2	4.4	4.5
5. I feel I can take responsibility for my own learning	4.9	4.8	4.6	4.7
6. I have become more confident of my ability to pursue further learning	4.7	4.2	4.5	4.6
7. During my time at university I have learned how to be more adaptable	4.5	4.2	4.7	4.6
8. I have become more willing to change my views and accept new ideas	4.6	4.2	4.5	4.4
9. I have improved my ability to use knowledge to solve problems in my field of study	4.7	4.4	4.6	4.7
10. I am able to bring information and different ideas together to solve problems	4.4	4.4	4.6	4.5
11. I have developed my ability to communicate effectively with others	4.4	4.4	4.5	4.5
12. In my time at university I have improved my ability to convey ideas	4.3	4.2	4.4	4.4
13. I have learned to become an effective team or group member	4.5	4.4	4.4	4.6
14. I feel confident in dealing with a wide range of people	4.7	4.4	4.5	4.5
15. I feel confident in using computer applications when necessary	4.4	4.5	4.5	4.4
16. I have learned more about using computers for presenting information	4.3	3.9	4.2	4.2
17. Our teaching staff use a variety of teaching methods	4.7	3.8	4.4	4.3
18. Students are given the chance to participate in classes	4.8	4.5	4.5	4.7
19. The teaching staff try hard to help us understand the course material	4.8	4.3	4.6	4.5
20. The course design helps students understand the course content	4.4	4	4.5	4.4
21. When I have difficulty learning materials, I find the explanations from teaching staff useful	4.5	4	4.3	4.2
22. The assessment tested our understanding of key concepts in this program	4.6	3.8	4.3	4.4
23. The program uses a variety of assessment methods	4.7	3.6	4.1	4.3
24. To do well in this program you need to have good analytical skills	4.6	4.2	4.4	4.5
25. The assessment tested our understanding of key concepts in this program	4.5	4.4	4.4	4.4
26. The communication between teaching staff and students is good	4.7	4.3	4.5	4.4
27. I find teaching staff helpful when I ask questions	4.8	4.4	4.5	4.4
28. I manage to complete the requirements of the program without feeling unduly stressed	3.4	3	3	2.7
29. The amount of work we are expected to do is quite reasonable	3.9	3.6	3.4	3.4
30. I feel a strong sense of belonging to my class group	4.4	3.8	4.1	4.3
31. I frequently work together with others in my classes	4.0	3.9	4.1	4.6
32. I have frequently discussed ideas from courses with other students out of class	4.3	4	4.2	4.3
33. I have found that discussing course material with other students out of class has helped me reach a better understanding of the material	4.4	4.4	4.4	4.5
34. I can see how courses fit together to make a coherent program of study for my major	4.7	4.4	4.5	4.5
35. The program for my major was well integrated	4.7	4.5	4.6	4.4

lowing student engagement questions. Data for campus A: levels 2 and 4, and campus B: levels 2 and 4 are presented. The potential responses were designated as: 1: strongly disagree, 2: disagree, 3: definite answer not possible, 4: agree, and, 5: strongly agree.

3.1. Quantitative Findings

Overall, the means showed, in general, the students are highly engaged on both campuses. The main effect for *site* was non-significant. There were significant interaction effects due to the difference between the group levels on the smaller campus.

Intellectual: the interaction effect was significant, with a small effect size ($p = 0.037$), with the difference lower for level 4 than level 2 on smaller campus.

Working together: students' engagement in terms of working together remained the same across campuses and levels.

Teaching: significant main effect for level ($p = 0.005$) with the difference lower for level 4 than level 2 on smaller campus; no significant difference on larger campus.

Teacher-student relationship: significant difference on smaller campus ($p = 0.008$) with the difference lower for level 4 than level 2; no significant difference on larger campus.

The students' report demonstrates a general high level of engagement and satisfaction with the campuses' teaching/learning environment. The main areas for follow-up are the responses to questions 28 and 29 which address students' perception of their stress levels. And, although small sample sizes, the general overall decrease from level 2 to level 4 on the smaller campus.

3.2. Qualitative Findings

The nursing students reported the following in reference to their feelings and perceptions of the nursing program:

What are the best aspects of the program?

Environment: The whole environment is very positive; It is nice having a smaller campus- The small class load made me feel more connected; All the staff help out; Class size; The university provides great resources to get through the program; campus size and faculty involvement; more awareness and decision making ability on the campus;

Course: the way the program is broken up each semester—the courses are fitting for each level; it is organized;

Classes: The classes of the group, accessibility to instructors & the clinical exposure; Very flexible, great staff & great communication; Small class sizes. Material is hard enough to weed out people unfit for nursing; small, close nit;

Teachers: always available! There are some really good teachers; Professors are very positive and strive to do their very best to teach us everything we need to know; Teacher/student communication was very helpful!; relationships between teachers & students; The instructors are very helpful and willing to teach if you

want to work hard and learn; The best aspect of my program is the teachers willingness to help their students. They meet up with students anytime they are in need of extra help; The best aspects of my program is that I am able to consult with my teacher if I am having problems & able to ask questions & be given rationales; staff-student relationship allows students confidence to ask questions; love how enthusiastic the teachers are about providing learning experiences;

Clinical: The clinical experience; the instructors are very good with communication & instructions.

What aspects are in most need of improvement?

A better study room; I don't know if it feasible but I think the med-surg content needs to be more spread out; None; organizational problems—not confirming with clinical sites before having us show up; exam times—I personally prefer earlier but most do not!; overall the program design is excellent. Great set of instructors!; use of technology; maybe not cram everything into April!; more time for self-care; some of the lecturing; collaboration with other campuses on tests. The instructors should take the test as well to ensure no errors; lecture, we can watch lectures on-line, class time should be used to help us learn, or make them online classes; unsure; the time required for each clinical needs a little improving. I feel that some clinical experiences are longer than need be; communication; need more on-line classes; space; study support for level 1 and 2; close gap between test taking and course content- need improvement in test taking as it relates to course material

4. Discussion

The data clearly demonstrate the nursing education the students are currently receiving is engaging, which is likely to be carried over into their new work environments. The overall goal of having well prepared and engaged students entering the workforce was achieved. The educational style and educators' teaching methods appear to provide the foundations for students to feel engaged with their learning and future perspectives.

The one area which is highlighted as a 3 or 2.7 is the experience of 'stress' the students feel overall during their education (questions 28 and 29). There is a stress management program currently in place in which students participate. This formally occurs three times during the semester, and includes: stress management, time management, professional boundaries, and test anxiety. Students can participate in individual sessions for specific problems they are experiencing. Students are also encouraged to seek counselling if their individual needs warranted it during the semester Student strategies for stress management are an area for further investigation and intervention planning. The areas to focus on are "organizing, prioritizing, communicating, and demonstrating leadership" as these areas are important for all levels of stakeholders within the organization [12]. When students are better prepared to deal with the diverse and numerous stressors, they will be more successful with their studies, the transition into practice, and the actual care environment. According to Harrill, Lawton and Fa-

bianke [13], the whole student needs to be supported. This requires efforts be made to address social, financial, emotional, or other barriers which are inhibiting their quality learning. This area has a focus within the campus at present. However, this *does not currently appear to be effective* as the scores were low on these markers.

Study groups, when done well (students clarify various areas of weakness for each other and correcting mistakes that occur), will assist to create stronger feelings of engagement between students. This is both emotional and cognitive *sharing and learning* that are occurring. These interactions are also building interpersonal skills and behaviors which are extremely important in 'service' provision. Nursing has an excellent reputation for quality service, and these skills are important to maintain.

Issues surrounding all on-line verses hybrid (blended) verses full face-to-face classroom education styles currently exist within the curriculum. Each teaching style has its own strengths and weaknesses. Most classes today are 'flipped classes' where students must prepare before the class on the topic which is outlined on their syllabus. This is often monitored by scheduled quizzes or exercises which demonstrates their prior preparation. Some courses may have participation grades. It is important to monitor the level of participation in the given activities, and provide feedback to students as to areas of improvement. There is also a strong commitment to developing effective interpersonal skills with students, especially when they are in the clinical environment. In fact, their level of interaction is evaluated both in the classroom and when they are out on clinical practice assignments. Feedback is provided individually for each student with the communication goals clearly defined. This demonstrates the organizational commitment to a culture of 'evidence and inquiry' as discussed by Harrill, Lawton, and Fabianke [13]. They state:

"...to continuously examine the students' experiences, progression, and outcomes, and these analyses inform the creation, implementation, and evaluation of their strategy to enhance the student experience and increase outcomes (p. 11)."

The students' sense of engagement is critical to their persistence and success of their informal and formal education.

The next step is to ensure the work environment maintains and exceeds the current engagement levels, if possible. The beginning phases of "real" nursing practice are sometimes met with unrealistic expectations. New nurses need to be supported and develop through these phases which progress during their first year in practice: the "honeymoon phase" and the "reality shock phase" will be unavoidable experiences as they mold into competent care providers. How these phases are managed by the practice educators, the clinical leaders and fellow staff will be important. This situation requires good teamwork and coordination for the new nurses to acclimate well.

Issue with certain students that do not find a study group due to a personality

issue, this could be a barrier for student engagement also a risk within the nursing profession as communication is key for patient and staff safety. Engagement is indirectly assessed by the educators throughout the semester. These students could be identified and provided with additional support toward developing stronger Inter professional skills for their group work in addition to skills for improving interactions within their clinical practice environments.

Rush, Adamack, Gordon, Janke, and Ghement [12] discuss the importance of “solid orientation and transition programs as assisting the transition into workplace integration”. They identified the importance of the length of formal transition support, with students acclimating better with longer integration support periods. We recommend this transition period be integrated into the unit’s support plan with an ongoing both “team” and “interpersonal” support mechanisms well developed to support all levels of staff. This effort is to enhance and maintain engagement within their nursing practice.

An anecdotal area of interest is the volunteerism that is carried during the nursing educational program. Could this education format develop more volunteerism within the students which will carry-over into their life after graduation? Volunteerism is gratifying for the volunteers, and certainly, very beneficial for the persons receiving the efforts provided.

The limitations of this research: 1) include the small site’s limitation in number of students; 2) did not include the third campus, which will be addressed with future research efforts, however—it also is a small campus with limited number of nursing students; and 3) include survey was offered during class time, and some students did not attend the specific date of the survey.

5. Conclusion and Recommendations

Overall, this study supports efforts to monitor and assess student perceptions of their sense of nursing engagement. These results can be used to assess responses to curricular changes and format adjustments which impact their learning styles and/or environments. Nursing is a complex area to learn, understand, and integrate into a high quality profession. Efforts to enhance or increase student/nursing engagement will inherently affect their responses to each other and the care style they exhibit during practice. The following recommendations are presented:

- Provide diverse curricular educational formats to stimulate all types of learners and maintain commitment and interests of all students;
- Group learning (including individualized feedback) toward increasing effective “teamwork” which is a job requirement for quality nursing care today;
- Ensure all educators are engaged and committed to student learning to assist in creating both healthy and beneficial well-rounded student outcomes;
- Allow student choices during the classes, which will provide a wonderful learning opportunity and enhance the sense of “belonging to learning” which is fundamental to develop lifelong learning skills and commitment (and ongoing high quality nursing staff with high quality performance);

- Encourage roles which develop well-roundedness, reflection, preparation, commitment, caring, sharing and openness within the learning environment as these will become part of the students' sense of engagement and important components of their skill sets once they graduate.

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Part-Time Nurse Faculty Intent to Remain Employed in Academia: A Cross-Sectional Study

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Abstract

The purpose of this study was to test and refine a model of part-time nurse faculty intent to remain employed in the academic organization. Cross-sectional survey methods were used. A total of 282 part-time nurse faculty working in colleges or universities in Ontario, Canada were invited to participate. Survey instruments and items measured demographic, workplace, nurse responses to the workplace, and external variables. Correlation, multiple regression, and mediation analyses were conducted using data from 119 participants (47.6% response rate). Of the 19 variables hypothesized to affect intent to remain employed in the academic organization, seven influenced intent to remain. The resulting model indicated that the older the part-time nurse faculty member, the lower the level of intent to remain and the more years worked in the organization, the higher the level of intent to remain. The more opportunities perceived to exist outside of the employing organization, the higher the level of intent to remain. Additionally, the more satisfied part-time nurse faculty were with their job overall, the higher their level of intent to remain. In the workplace, the more support from the leader, the more formal or informal recognition received, and the more fair work procedures were perceived to be, the higher levels of part-time nurse faculty intent to remain employed in the academic organization, mediated by job satisfaction. Although age, organizational tenure, and external career opportunities are non-modifiable variables, deans and directors can encourage part-time nurse faculty to remain employed in their academic job by focusing on enhancing overall job satisfaction. Effective strategies may include formal or informal acknowledgement of good performance, consistent verbal and behavioural support, and implementation of procedural practices, such as performance evaluations and pay raises in a fair manner.

Keywords

Intent to Remain, Intent to Stay, Retention, Part-Time Nurse Faculty,

1. Introduction

The shortage of nurses is widespread across all nursing roles, including nurse faculty. In Canada, the supply of faculty is a major factor affecting the country's ability to increase its educational and workforce capacity. Nurse faculty represent a small proportion of Canadian nurses. In 2015, only 3.7% of the workforce was employed in the academic sector [1], some of whom may not work as faculty. Despite their small numbers, nurse faculty is responsible for preparing future nurse clinicians, educators, researchers, and leaders while creating and using nursing knowledge through role modeling, research, and scholarship. The shortage of nurse faculty may contribute to a reduction of nursing programs and erosion of research needed to advance practice [2]. [3] more ominously stated that the health of the population is at stake without well-prepared faculty. Along with their full-time counterparts, part-time nurse faculty play an important role in producing the nursing workforce. In the 2013-2014 academic year, 63.5% of nurse faculty working in Canadian nursing schools were part-time, up from approximately 46% in the 2010-2011 academic year [4] [5]. As post-secondary nursing programs increase their number of part-time nurse faculty, organizational efforts to promote retention behaviour should be a priority. However, little is known about what specific factors influence part-time nurse faculty retention.

2. Literature Review

Theoretical Perspectives of Intent to Remain Employed

In recent years, more research has focused on identifying the factors that influence nurse faculty intent to remain employed (ITR) in their academic positions. This work is timely given the shortages that continue to impact nursing schools and the profession's efforts to increase the workforce. As will be evident below, theories and research generated differ in complexity and in identification of predictor variables. Predictor variables are numerous, not tested consistently across studies or conceptualized differently. This makes comparisons challenging. More common among theories is the proposition of ITR being a multi-stage, attitudinal, decisional, and behavioural process [6]. This perspective draws from the seminal work of [7] [8] who developed the model, *Theory of Reasoned Action*, for the prediction of behavioural intentions and/or actual behaviour. The behavioural component relates to the act of retention. The decisional component describes the intention to act viewed as the direct causal variable through which other variables influence actual retention behaviour [9] [10]. The attitudinal component includes, but is not limited to, job satisfaction and organizational commitment. The main premise of the theory is that behavioural intentions are the direct and most significant determinants of behaviour. Therefore, nurses

who intend to remain employed in the organization are likely to remain employed [9] [11] [12] [13] [14] [15]. Several nurse faculty ITR models are briefly described below.

Candela *et al.*'s model. In a recent cross-sectional survey study, [16] tested their hypothesized model of ITR on 808 nurse faculty working in the US. Using structural equation modeling (SEM), several direct and indirect relationships were found to be statistically significant predictors of ITR. ITR was directly affected by nurse faculty satisfaction with work, perceptions of administration's support for faculty, perceived teaching expertise, and generational membership. ITR was indirectly impacted by perceived teaching expertise and perceptions of administration's support for faculty through satisfaction with work.

Tourangeau *et al.*'s model. [17] conducted a cross-sectional survey to test their hypothesized model of predictors of nurse faculty 5-year ITR with 650 full-time and part-time nurse faculty working in colleges or universities in Ontario, Canada. Using stepwise regression analysis, they found that 10 of the 27 hypothesized factors predicted ITR. These predictors were organized into four categories: 1) personal characteristics—having dependents, proximity to retirement, satisfaction with work and life balance; 2) work environment and organizational support—financial support for advanced education, satisfaction with job status, satisfaction with access to required human resources, quality of the relationship with colleagues, employed full-time; 3) job content—quality of education; 4) external characteristics—being unionized. The model explained 25.4% of the variance in ITR for the next five years.

Daly and Dee's model. [18] tested their model of faculty ITR on 768 full-time instructional faculty from 15 public universities in the US. Instructional faculty was defined as members of the instructional/research staff who were employed full-time and whose major regular assignment was teaching. They proposed that ITR is directly influenced by several constructs, grouped into four categories: 1) structural variables—autonomy, communication openness, distributive justice, role conflict, and workload; 2) psychological variables—job satisfaction and organizational commitment; 3) demographic variables—gender, race, marital status, academic rank, years in current institution, and years in profession, and; 4) external environment variables—job opportunity and kinship responsibility. They also hypothesized that the structural and external environment variables indirectly predicted ITR through the psychological variables, job satisfaction and organizational commitment. Using path analysis, it was found that job satisfaction, organizational commitment, and job opportunity directly influenced faculty ITR. Autonomy, communication openness, and role conflict directly predicted both job satisfaction and organizational commitment. Distributive justice indirectly predicted ITR through organizational commitment. The model explained 53% of variance in faculty ITR.

Al-Omari *et al.*'s model. [19] tested their hypothesized model of faculty ITR on a sample of 139 full-time instructional faculty from various departments in a public Jordanian university. They hypothesized that several variables grouped

into four categories directly influenced ITR: 1) work life variables—autonomy, communication openness, distributive justice, role conflict, and workload; 2) psychological variables—job satisfaction and organizational commitment; 3) external variable—job opportunity; and 4) demographic variables—gender and faculty rank. They also hypothesized that the work life, external, and demographic variables indirectly influenced ITR through job satisfaction and organizational commitment. Using SEM, they found that the model explained 47% of variance in ITR. Job opportunity, job satisfaction, and organizational commitment directly predicted ITR. Autonomy, communication openness, role conflict, and workload predicted ITR indirectly through both job satisfaction and organizational commitment. Distributive justice indirectly predicted ITR through organizational commitment only.

Based on theoretical perspectives and previous research, a model of part-time nurse faculty intent to remain employed in the academic setting was developed. Nineteen relationships were hypothesized. See **Figure 1** for an illustration of the model. Plus and minus signs represent predicted positive and negative relationships, respectively. This study addressed the following research question: **What are the determinants of part-time nurse faculty intent to remain employed in the academic organization?**

3. Methods

A cross-sectional survey design was used. A faculty member was included if she/he met the following inclusion criteria: a) a registered nurse (RN); b) employed by a college or university nursing program in the Province of Ontario, Canada; c) currently employed on a part-time basis; d) has taught or will teach RN students or registered practical nursing (RPN) students within the past year or over the next year, and; e) agreed to be contacted for research inclusion purposes. Faculty were excluded if a) they were not an RN (e.g., registered practical nurse); b) they were contractually employed on a full-time basis, and; c) they were primarily employed as an administrator (e.g., dean or director). A self-report questionnaire was mailed to the home of all eligible nurse faculty. Eligible participants were contacted up to five times over a 10-week period following methods proposed by [20].

Three full-time nurse faculty members at the academic organization where the primary investigator was affiliated agreed to participate in a pilot feasibility test. Minor changes were made to improve clarity of instructions and questionnaire format. The questionnaire consisted of 14 valid and reliable scales and specific individual questions about ITR, demographics, work rewards, and external career opportunities.

Confirmatory factor analysis was conducted to assess scale validity using SEM software AMOS version 18. Factor loadings were estimated using maximum likelihood estimation. Model fit was examined by assessing the model as a whole as indicated by the chi-square test, its p-value, and goodness-of-fit indices [21].

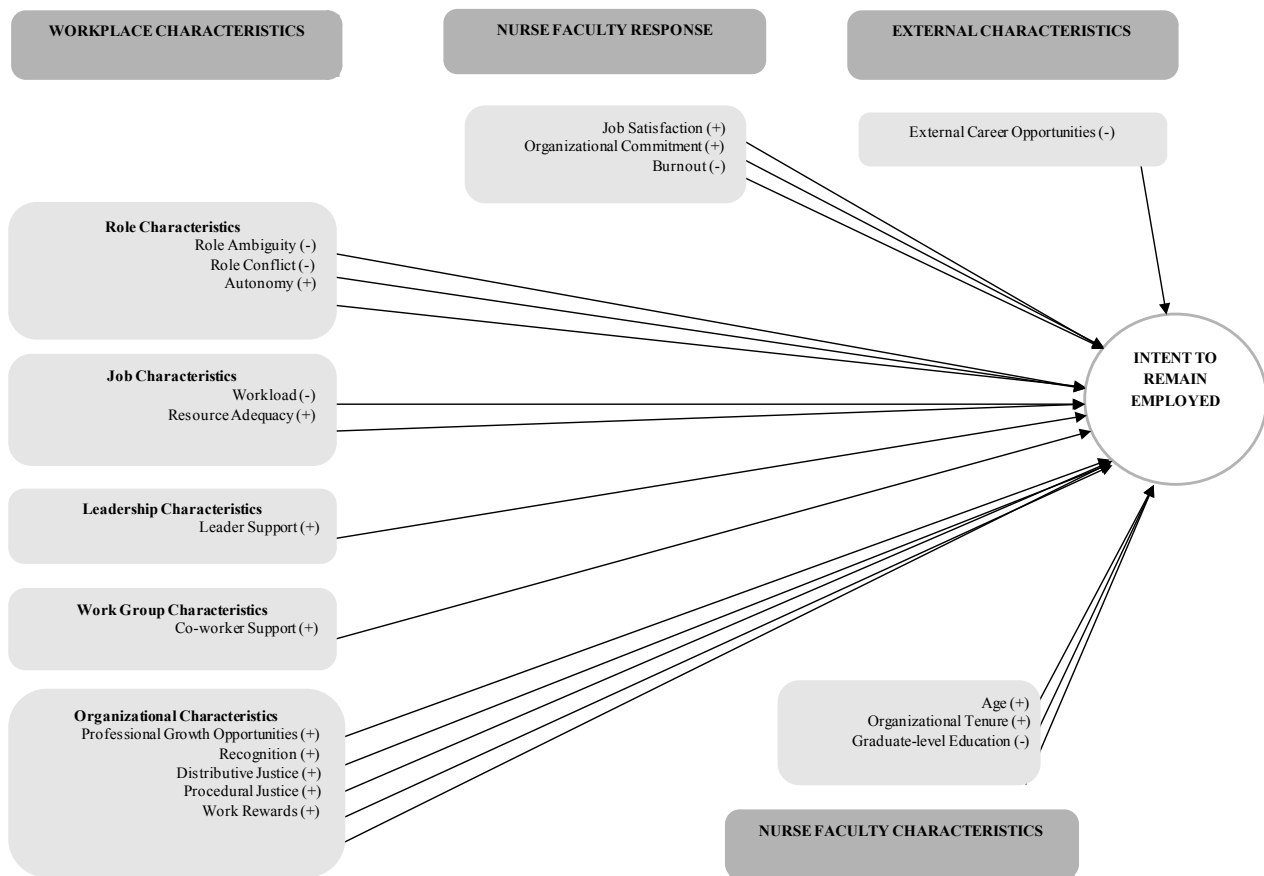


Figure 1. Hypothesized model of part-time nurse faculty intent to remain employed in the academic setting.

Correlation analysis and multiple linear regression were used to test relationships between hypothesized predictors and part-time nurse faculty ITR. Based on theory and previous findings, it was assumed that some independent variables are related to each other. Independent variables were entered simultaneously to identify how much unique variance in ITR each of the independent variables explains. In standard multiple regression, the portion of correlated variables that contributes to the variance in ITR is not assigned to any one independent variable. Therefore, independent variables that were highly correlated with ITR and other independent variables may appear unimportant. For this reason, both the full correlation and the unique contribution of each independent variable were considered in interpretation.

Ethics approval was obtained from the University of Toronto Health Sciences Research Ethics Board.

4. Findings

According to the College of Nurses of Ontario, the registering body for RNs, RPNs, and nurse practitioners in Ontario, Canada, 282 part-time nurse faculty in Ontario fit the inclusion criteria based on those registered in 2011. Pre-notice letters were mailed to the home address of eligible part-time faculty. One pre-notice letter was returned indicating an incorrect mailing address. Two ques-

tionnaires were undeliverable. Twenty-nine responders were ineligible. A total of 125 part-time nurse faculty who met the inclusion criteria completed the questionnaire for a response rate of 50%. Data from six responders were deleted from further analysis because of a high percentage of missing data. The final response rate was 47.6%.

4.1. Data Quality

Data were coded and entered into SPSS 20 computer software. Normality, linearity, multicollinearity, and homoscedasticity assumptions were examined. Scatter plots of independent and dependent variables showed that age functioned curvilinearly. Therefore, age-squared was included as a predictor in regression analyses. Items included in inferential analysis with missing scores were not excessive [22] and ranged from 0.8% ($n = 1$) to 5.0% ($n = 6$). Missing values in demographic variables were imputed using pattern matching. For the independent variables, the missing completely at random (MCAR) assumption was examined using [23]'s MCAR test; missing data were missing completely at random ($\chi^2 = 1786$, $df = 1906$, $p = 0.98$). Assessment of multicollinearity began with examining the correlations between all independent variables. Correlations ranged from <0.001 to 0.74. The correlation of 0.74 between distributive justice and work rewards suggested collinearity. However, all variance inflation factor statistics of the independent variables were less than 10.0, ranging from 1.16 to 2.99 [24]. Therefore, there was no evidence that the assumption of multicollinearity was violated.

4.2. Sample Characteristics

All participants were female. The average age of the sample was 53.4 years ($SD = 11.49$). The majority of the sample had a nursing baccalaureate degree (45.4%) as their highest level of RN education. Almost one third had a Master of Nursing degree (31.9%) as their highest nursing education credentials. Almost 20% had a nursing diploma and two participants had a PhD in nursing ($<1\%$). Part-time nurse faculty worked as teachers (81.5%) and professors (17.6%). Participants had an average of 9.6 years in their current organization (range = 1.5 - 40.0).

The majority of the sample worked 0.50 full-time equivalents (FTE) or less; 27.7% worked between 0.31 and 0.50 FTEs and 26.9% worked 0.30 FTEs or less. Almost 17% worked between 0.51 and 0.75 FTEs, and the remaining 18.5% worked 0.76 or more FTEs, 10 of which said they worked the equivalent hours of 1.0 FTE. Participants that reported working 1.0 FTE may have been referring to the number of hours that they put into their job, rather than the number of hours that they were hired to work.

The majority of participants (56.3%) reported that they would not prefer a full-time position if available; 36% would choose a full-time position if available, and 7.7% were unsure. There was an almost even split between place of work—45.4% worked in a university setting and 47.9% work in a college setting. Eight individuals worked in both a college and university. These individuals were re-

ferring to their employment in a collaborative nursing program, in which nursing education is jointly delivered by college and university partners with the university partner maintaining authority to issue baccalaureate nursing degrees [25]. Descriptive statistics for predictor variables are summarized in **Table 1**.

4.3. Measurement Findings

Each construct measured with an established instrument was assessed for validity and reliability. Findings are summarized in **Table 2**. With some exceptions, the instruments had sound psychometric properties.

When examining construct validity, the hypothesized models purported to measure the following constructs did not fit the data well: role conflict, pro-

Table 1. Descriptive statistics for predictor variables.

Variable	Range	Mean* (SD) or Proportion (%)
Intent to remain employed for 2 years	1 - 100	76.17 (31.33)
Age (in years)	30 - 76	53.40 (11.49)
Organizational Tenure (in years)	1.5 - 40	9.56 (8.01)
Graduate-level Education		
Baccalaureate	–	45.4
Diploma	–	19.8
Master's	–	31.9
PhD	–	<1
Workload	1 - 100	53.97 (24.95)
Resource Adequacy	1 - 100	48.25 (20.60)
Autonomy	1 - 100	72.98 (22.99)
Role Ambiguity	1 - 100	36.36 (23.27)
Role Conflict	1 - 100	46.16 (23.27)
Leader Support	1 - 100	69.46 (27.17)
Co-worker Support	1 - 100	70.28 (24.33)
Professional Growth Opportunities	1 - 100	55.50 (23.55)
Recognition	1 - 100	56.26 (25.63)
Distributive Justice	1 - 100	43.72 (24.86)
Procedural Justice	1 - 100	48.92 (20.23)
Work Rewards	1 - 100	43.77 (31.03)
External Career Opportunities	1 - 100	59.89 (30.24)
Burnout		
Low EE** ≤ 13	1 - 24	12.82 (1.36)
Average EE = 14 - 23		
High EE ≥ 24		
Organizational Commitment	1 - 100	65.87 (22.97)
Job Satisfaction	1 - 100	75.49 (25.73)

Note: *all variables standardized out of 100 except age, organizational tenure, graduate-level education, and burnout. **emotional exhaustion.

Table 2. Validity and reliability findings for predictor variables.

Predictor	Modification	Factor	Confirmatory Factor Analysis							Evaluation	Cronbach's α
			$\chi^2(df)$	SRMR	GFI	CFI	TLI	RMSEA			
Workload	-	0.57 - 0.79	0.002 (1)	0.001	1.00	1.00	1.00	0.12 (0.00 - 0.00)	Adequate	0.69	
Resource Adequacy	Item removed	0.37 - 0.87	4.25 (2) (0.12)	0.005	0.98	0.97	0.90	0.09 (0.00 - 0.23) (0.20)	Adequate fit	0.66	
Role Ambiguity	-	0.44 - 0.82	14.81 (9) (0.10)	0.04	0.96	0.98	0.97	0.07 (0.00 - 0.14) (0.25)	Good fit	0.86	
Role Conflict	Correlated errors	0.48 - 0.79	28.96 (18) (0.05)	0.05	0.95	0.97	0.96	0.07 (0.01 - 0.12) (0.21)	Good fit	0.86	
Autonomy	-	0.88 - 0.97	0.02 (1) (0.90)	0.001	1.00	1.00	1.00	0.11 (0.00 - 0.11) (0.91)	Adequate fit	0.95	
Leader Support	-	0.73 - 0.87	14.52 (8) (0.07)	0.03	0.96	0.98	0.97	0.08 (0.00 - 0.15) (0.19)	Good fit	0.85	
Co-worker Support	-	0.79 - 0.80								0.86	
Professional Growth Opportunities	Correlated errors	0.45 - 0.94	2.81 (1) (0.09)	0.03	0.99	0.99	0.92	0.12 (0.00 - 0.31) (0.14)	Adequate fit	0.77	
Recognition	Correlated errors	0.78 - 0.92	1.17 (1) (0.28)	0.01	0.99	1.00	0.99	0.04 (0.00 - 0.25) (0.35)	Good fit	0.91	
Distributive Justice	Correlated errors	0.83 - 0.96	13.59 (7) (0.06)	0.02	0.97	0.99	0.98	0.08 (0.00 - 0.16) (0.16)	Good fit	0.96	
Procedural Justice	Correlated errors	0.61 - 0.94	0.29 (1) (0.59)	0.005	0.99	1.00	1.00	0.00 (0.00 - 0.19) (0.64)	Good fit	0.87	
Burnout	Correlated errors	0.62 - 0.93	24.41 (15) (0.06)	0.03	0.95	0.99	0.98	0.07 (0.00 - 0.12) (0.22)	Good fit	0.93	
Organizational Commitment	Correlated errors	0.39 - 0.90	31.92 (23) (0.10)	0.03	0.95	0.99	0.98	0.06 (0.00 - 0.10) (0.40)	Good fit	0.93	
Job Satisfaction	-	0.71 - 0.96	0.84 (1)	0.014	0.99	1.00	1.00	0.00 (0.00 - 0.24)	Good fit	0.88	

fessional growth opportunities, recognition, distributive justice, procedural justice, burnout, and organizational commitment. Once revised by correlating errors or in one case, removing an item, the models adequately reflected the corresponding construct [26]. Measurement reliability was assessed with Cronbach's alpha. A reliability coefficient of 0.70 or higher is considered acceptable [27]. The Workload Index and the Resource Adequacy sub-scale did not meet the recommended internal consistency threshold of 0.70 with Cronbach's alphas of 0.69 and 0.66, respectively.

4.4. Correlation Results

Correlation analyses were conducted to examine relationships among the de-

pendent variable, ITR 2 years and the hypothesized independent variables. Six of the 20 independent variables were statistically significantly correlated with ITR at the 0.10 alpha level. The negative correlation between age and ITR indicated that the older the part-time nurse faculty, the lower the level of ITR ($r = -0.16$, $p = 0.08$). Positive correlations between ITR and leader support ($r = 0.21$, $p = 0.02$), recognition ($r = 0.23$, $p = 0.01$), procedural justice ($r = 0.17$, $p = 0.07$), external career opportunities ($r = 0.21$, $p = 0.02$), and job satisfaction ($r = 0.29$, $p = 0.001$) indicated that leader behaviours perceived to be supportive, formal and informal recognition practices, fairness in procedural activities, the availability of faculty positions outside of the employing organization, and overall satisfaction were associated with higher levels of ITR.

4.5. Multiple Regression Results

Standard multiple regression analysis of the 20 predictor variables produced a statistically significant regression model: $R^2 = 0.30$, $F(20, 98) = 2.08$, $p = 0.01$, adjusted $R^2 = 0.16$. Five variables were found to be statistically significant predictors of ITR at the 0.10 alpha level: age, age-squared, organizational tenure, external career opportunities, and job satisfaction. Together, these variables predicted 22% of variance in ITR 2 years.

Examination of beta coefficients and R^2 of several regression models suggested the presence of suppressor variables. A suppressor variable “increases the predictive validity of another variable (or set of variables) by its inclusion in a regression equation” [28]. This variable is a suppressor only for those variables whose regression weights are increased [28]. Age and organizational tenure were reciprocal suppressors in explaining ITR. Although these variables correlated positively with each other ($r = 0.41$, $p < 0.001$), they correlated with ITR in the opposite direction. When age and organizational tenure were included in regression analyses one at a time as predictors of ITR, the effect of age on ITR was weak ($\beta = -0.18$, $p = 0.08$) but increased in magnitude and became increasingly significant when organizational tenure was added to the equation ($\beta = -0.28$, $p = 0.008$). For this regression model, variance explained increased from 11% to 16% [$R^2 = 0.25$, adjusted $R^2 = 0.11$, $F(19, 99) = 1.77$, $p = 0.04$ and $R^2 = 0.30$, adjusted $R^2 = 0.16$, $F(20, 98) = 2.07$, $p = 0.01$, respectively]. Similarly, when age was not included in the equation predicting ITR, the regression coefficient with organizational tenure was relatively weak and nonsignificant ($\beta = 0.14$, $p = 0.14$). When age was included in the regression equation, the regression coefficient increased in magnitude and became statistically significant ($\beta = 0.25$, $p = 0.02$). The explained variance of this model increased from 10% to 16% [$R^2 = 0.25$, adjusted $R^2 = 0.10$, $F(19, 99) = 1.70$, $p = 0.05$]. These analyses suggest that age and organizational tenure had a mutual reciprocal suppression effect. Multiple regression findings are summarized in **Table 3**.

4.6. Mediation Analyses

Mediation analyses were conducted to gain a better understanding of the associ-

Table 3. Summary of standard multiple regression results.

Variable	b	SE	β	t	p
Age	-0.05	0.017	-0.28	-2.69	0.008
Age ²	-0.003	0.001	-0.23	-2.41	0.02
Organizational Tenure	0.06	0.024	0.25	2.48	0.02
Graduate-level Education	-0.03	0.372	-0.006	-0.07	0.95
Workload	-0.15	0.256	-0.07	-0.60	0.55
Resource Adequacy	-0.21	0.293	-0.08	-0.71	0.48
Role Ambiguity	-0.12	0.198	-0.06	-0.60	0.55
Role Conflict	0.25	0.207	0.16	1.19	0.24
Autonomy	0.01	0.139	0.008	0.08	0.94
Leader Support	0.06	0.289	0.03	0.20	0.84
Co-worker Support	-0.29	0.276	-0.12	-1.06	0.29
Professional Growth Opportunities	-0.13	0.169	-0.09	-0.74	0.46
Recognition	0.37	0.240	0.20	1.55	0.12
Distributive Justice	-0.12	0.277	-0.07	-0.45	0.66
Procedural Justice	0.43	0.291	0.18	1.46	0.15
Work Rewards	0.03	0.135	0.03	0.25	0.80
External Career Opportunities	0.17	0.094	0.16	1.77	0.08
Burnout	0.26	0.192	0.18	1.35	0.18
Organizational Commitment	-0.10	0.193	-0.06	-0.50	0.62
Job Satisfaction	0.64	0.220	0.41	2.91	0.005

Note: n = 119. b = unstandardized regression coefficient. SE = standard error. β = standardized regression coefficient.

ations between predictors and ITR and the unique contribution of sets of predictors in the explanation of ITR. Significant correlations and nonsignificant regression coefficients suggested that job satisfaction mediated the association between leader support, recognition, and procedural justice and ITR. The statistically significant standardized regression coefficient between leader support and ITR ($\beta = 0.21$, $p = 0.02$) decreased and became nonsignificant when controlling for job satisfaction ($\beta = 0.10$, $p = 0.34$). The other conditions of mediation were also met: leader support was a significant predictor of job satisfaction ($\beta = 0.45$, $p < 0.001$), and job satisfaction was a significant predictor of ITR while controlling for leader support ($\beta = 0.25$, $p = 0.01$). Similarly, when controlling for job satisfaction, the significant coefficient between recognition and ITR ($\beta = 0.23$, $p = 0.01$) became nonsignificant when controlling for job satisfaction ($\beta = 0.12$, $p = 0.23$). The other conditions of mediation were also met: recognition was a significant predictor of job satisfaction ($\beta = 0.47$, $p < 0.001$), and job satisfaction was a significant predictor of ITR when controlling for recognition ($\beta = 0.24$, $p = 0.02$). Mediation analyses show that the relationship between procedural justice and ITR was mediated by job satisfaction. Controlling for job satisfaction, the

significant coefficient between procedural justice and ITR ($\beta = 0.17$, $p = 0.08$) became nonsignificant ($\beta = 0.07$, $p = 0.48$) suggesting a fully mediated relationship. The other conditions of mediation were met: procedural justice predicted job satisfaction ($\beta = 0.37$, $p < 0.001$) and job satisfaction predicted ITR when controlling for procedural justice ($\beta = 0.27$, $p = 0.005$). Study findings suggest the revised model illustrated in **Figure 2**. Age, organizational tenure, and external career opportunities directly impact ITR. Leader support, recognition, and procedural justice are the stimuli that part-time nurse faculty evaluate, influencing job satisfaction and, in turn, impacting their level of ITR in the academic organization.

5. Discussion

The purpose of this research was to develop, test, and refine a theoretical model of the determinants of part-time nurse faculty intent to remain employed in the academic organization. Findings are discussed in terms of four key areas of findings: the effect of age and organizational tenure; the effect of external career opportunities; the effect of job satisfaction, and; the effect of leadership.

5.1. Effect of Age and Organizational Tenure on Intent to Remain Employed

The older the part-time nurse faculty, the lower her/his level of ITR in the academic organization. These linear and curvilinear relationships indicate that as part-time nurse faculty get older, the level of ITR declines more sharply. This isn't surprising as the older one becomes, the closer to retirement, thus intention to remain in the job likely lessens. In the nursing profession, this is a particularly significant problem as part-time nurse faculty is on average, older than the nurse population [1].

The longer part-time nurse faculty works in the same organization, the higher their level of ITR. Study findings are similar to previous research [15] [29]. It is believed that increased years of employment results in higher levels of ITR because the longer one remains in an organization, the more investments made by nurse faculty within the organization. Part-time nurse faculty who have worked in one institution for an extended period of time have developed supportive and meaningful relationships with colleagues and supervisors and have accrued work rewards (e.g., salary increases, promotions, accolades). In addition, age and organizational tenure enhance each other's association with ITR. Examining the correlation coefficient between organizational tenure and ITR alone may lead to the conclusion that it is not a meaningful predictor of nurse faculty ITR. However, its inclusion in further analysis, along with its reciprocal suppressor, age, enhances the strength of their relationship with ITR. Further examination shows that the positive relationship between age and organizational tenure means that as part-time nurse faculty get older, the number of years employed in the organization increases. While these predictors are positively correlated, their effects on ITR are opposite. ITR increases the longer part-time nurse faculty work in the

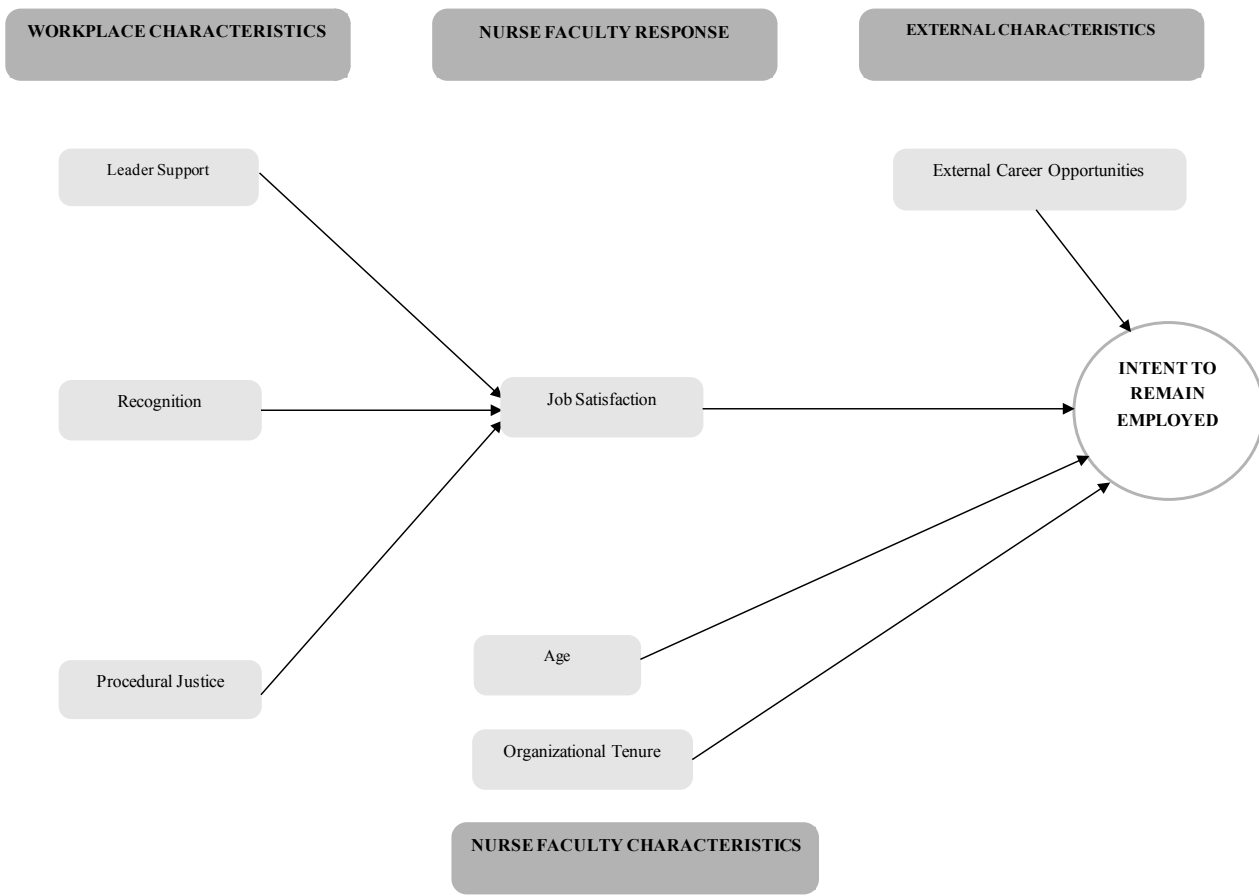


Figure 2. Revised theoretical model of part-time nurse faculty intent to remain employed in the academic setting.

same organization but decreases when age increases. This is the first known study of nurse faculty ITR to find a reciprocal suppression effect between age and organizational tenure.

5.2. Effect of External Career Opportunities on Intent to Remain Employed

The more perceived opportunities external to the organization, the higher the level of part-time nurse faculty ITR. This finding is in contrast to previous research. [6] [18] [30] found that nurse faculty, instructional faculty of different disciplines, and acute care nurses, respectively, had lower levels of ITR if job opportunities external to their current organization were available. The difference between this study's findings and previous work may be related to the conditions of part-time nurse faculty jobs. In areas where faculty jobs offer similar compensation packages and work environments, part-time faculty may not be willing to change jobs as the benefits of staying outweigh the costs of leaving. Comparisons between the current job and external positions may lead to the conclusion that the current position better meets personal needs and expectations which in turn increases ITR. Alternatively, part-time jobs may be unavailable. Many part-time faculty chose to work part-time, therefore, the more job opportunities, many of which are full-time, the higher the level of ITR in the

current part-time position.

5.3. Effect of Job Satisfaction on Intent to Remain Employed

Study findings support a large and growing body of literature that establishes the importance of job satisfaction and its influence on ITR [16] [17] [18] [31]-[44]. In this study, job satisfaction was the strongest predictor of part-time nurse faculty ITR, similar to previous research [44] [45] [46]. The more satisfied the part-time nurse faculty is with the job, the higher the level of ITR. Job satisfaction has been found to mediate work environment characteristics, leader support, recognition, procedural justice, and ITR. This is consistent with theory and research [6] [10] [13] [18] [37] [40] [47]-[52].

5.4. Effect of Leadership on Intent to Remain Employed

Research into the effects of leadership behaviour on employees' intentions and behaviours to stay or leave their job is considerable [6] [15] [16] [37] [53] [54]. Consistent with the research, study results indicate that leaders who foster open, helpful, and positive relationships with their part-time nurse faculty enhance part-time faculty's ITR. This relationship was mediated by job satisfaction. Leader behaviours perceived as supportive produce higher levels of job satisfaction, which in turn, increase the level of ITR. Similarly, [16] found that nurse faculty's perceptions of administrator's support for faculty impacted faculty satisfaction with work and ITR. In several studies, it was found that supportive leader behaviours enhance job satisfaction [31] [32] [35] [37] [38] [42] [53] [55] [56] [57].

5.5. Effect of Recognition on Intent to Remain Employed

Acknowledging part-time nurse faculty's work-related performances or accomplishments leads to high levels of ITR. This relationship was mediated by job satisfaction. Part-time nurse faculty who are recognized for their efforts and performance are more satisfied with their job, in turn, increasing ITR. Research supports the finding of a significant relationship between recognition and ITR [15] [30] [58]. It should be noted that these studies did not examine a causal order in which higher levels of perceived recognition enhances ITR through job satisfaction, which is suggested by this study's findings. Similar to this study, [58] found positive correlations between ITR and two kinds of recognition—recognition for outstanding performance and recognition for achievements. [15] took a different approach in measuring recognition. Their use of one item to assess satisfaction with recognition combines the two constructs. As a result, nurses evaluated the state of recognition and their satisfaction with it simultaneously. [15]'s finding may support the theory that job satisfaction is the result of one's evaluation of the work environment, supporting the causal order that recognition impacts job satisfaction, which predicts ITR. Study findings also support theoretical frameworks of nurse ITR. For instance, [59] hypothesized that praise and recognition affects clinical nurses' ITR, mediated by job satisfac-

tion.

5.6. Effect of Procedural Justice on Intent to Remain Employed

Study findings suggest that when part-time nurse faculty perceives fairness is used in policy and procedural decisions, they have an increased ITR in their academic job. Similar to leader support and recognition, the relationship between procedural justices and ITR is indirect, mediated by job satisfaction. Therefore, higher levels of perceived procedural justice enhance feelings of job satisfaction, in turn, increasing the level ITR. Consistent with this study's findings, [60] found that levels of procedural justice in a sample of accounting faculty, predicted ITR. In contrast, [16] did not find that perceived equity and fairness of the promotion and tenure process predicted satisfaction with work and ITR. Differences in findings may be due to differences in the measurement of procedural justice. In general, scholars contend that employees focus on the idea of fairness expressed by the organization [60]. Fair organizational practices communicate to employees that they are valued members of the organization.

6. Study Limitations

The sample size of 119 part-time nurse faculty is small relative to the number of variables [61] which limits generalizability of findings. The Workload Index and the School-Level Environment Questionnaire used to measure workload and resource adequacy, respectively, had lower than desired reliability [27] perhaps preventing detection of relationships. It can be argued, however, that a relationship between these work environment factors and ITR do not exist. Correlation analysis shows that the relationship between workload and ITR, and resource adequacy and ITR are very weak and nonsignificant ($r = -0.11$, $p = 0.24$ and $r = 0.006$, $p = 0.94$, respectively). Furthermore, setting the level of significance to an alpha of 0.10 increases the odds of finding a true relationship in the population yet did not result in significant relationships.

Study findings suggest the presence of relationships between ITR and several variables. However, the cross-sectional approach to examining the hypothesized causal model does not confirm causality of hypothesized predictors of ITR. Further research that meets the conditions of causality are needed to strengthen claims of predictors of part-time nurse faculty ITR.

7. Study Implications

Deans and directors of schools of nursing are important for influencing part-time nurse faculty job satisfaction and ITR. Recognizing and acknowledging part-time nurse faculty for their achievements and performances demonstrates that the leader appreciates the employee's efforts and accomplishments thus contributing to job satisfaction. Recognition may be especially vital for part-time nurse faculty as they are not as engaged in daily organizational activities and relationships with colleagues and management because of working fewer hours. This relative detachment from their employer could lead to feelings of isolation

and dissatisfaction without consistent and positive acknowledgement of efforts.

Part-time nurse faculty evaluate the degree of fairness displayed by their leaders in decision-making during organizational procedures which affects the employee's job satisfaction. Unlike distributive justice, procedural justice is about fairness not outcomes (e.g., pay, performance evaluations, promotions), suggesting that a fair process has a symbolic aspect not related to outcomes [60]. The use of fair procedures may convey to part-time nurse faculty that they are considered esteemed expert nurses whose background, experiences, and personality fit well in the nursing school. Establishing and implementing fair and consistent decision-making procedures may be more important to part-time nurse faculty who are not as involved in or aware of daily organizational activities. Deans and directors can cultivate procedural justice by providing fair interpersonal treatment of employees and by being transparent about organizational decisions [62].

One challenge that deans and directors may face is the reality that part-time nurse faculty have reduced number of hours at work. Less time at work reduces the face-time between a leader and the employee which can limit relationship-building, opportunities for support or praise and recognition. Part-time nurse faculty is not likely as involved in departmental operations and procedures as are full-time nurse faculty. Increasing face-to-face contact with part-time faculty may not be possible. Therefore deans and directors should consider other ways to show their support, provide meaningful recognition, implement fair procedures, influence job satisfaction, and ultimately, intent to remain employed. Activities may include:

- Establish regular contact (e.g., bi-weekly) with part-time nurse faculty via email or phone apart from regular emails/phone calls about departmental operations;
- Create a monthly forum for part-time staff and the leader to meet face-to-face. The purpose may be for the leader to provide an update of the operations, praise reports, opportunities in the department (e.g., research, training, conferences, etc.), and for part-time faculty to address concerns and provide feedback. Remote online access (e.g., Skype) should be available for part-time faculty to participate;
- Develop a departmental orientation for newly-hired part-time staff. In addition to the usual information provided (e.g., benefits, resources available), include detailed information about procedures such as performance evaluation, curriculum development, and professional development opportunities.

Part-time nurse faculty also play an important role in the quality of the leader-employee relationship. Their degree of involvement in organizational life may contribute to feelings of disconnect from daily operations, colleagues, and work culture. Therefore, it is important for part-time nurse faculty to communicate their expectations of the leader and procedures that may affect their role (e.g., performance evaluations, course assignment, and curriculum development). Recognition, whether formal or informal, serves as a compass for part-time

nurse faculty as it provides concrete information about the degree to which her/his efforts align with the leader's and departmental expectations. The important point is that part-time nurse faculty can initiate dialogue with their leader rather than always expecting their leader to initiate the conversation.

8. Future Research

Four areas of future research are suggested. First, the revised model can be tested using SEM. The causal model has the characteristics appropriate for the SEM approach (*i.e.*, direct and indirect effects, and causal sequences amongst constructs). Second, should researchers choose to examine relationships between constructs from the original model and ITR, the workload and resource adequacy instruments should be improved. Results from confirmatory factor analysis indicate that not all aspects of particular study constructs (*i.e.*, role conflict, professional growth opportunities, recognition, distributive justice, procedural justice, burnout, and organizational commitment) are being captured by the instruments. Improving the measurement of these constructs may increase the percentage of explained variance in ITR. Third, a longitudinal study should be conducted to test the hypothesized causal relationships found in this study to provide stronger evidence of the causal ordering of constructs [50]. Fourth, research using an interventional quasi-experimental design may provide more practical and concrete evidence for nursing administration.

9. Conclusions

This study provides new knowledge about the determinants of part-time nurse faculty intent to remain employed in academia. However, there is more to learn about this population of faculty. The number of variables that were found to be non-significant suggests that the ITR phenomena specific to part-time nurse faculty are complex requiring new research. The study of work motivation is one potential area. Part-time nurse faculty may be intrinsically motivated and seek enjoyment, interest, self-expression, satisfaction of curiosity, or personal challenge in their work [63]. Some work has been done in this area [64].

We have new insights into a relatively unexamined challenge that is useful for leadership in nursing college and university programs. Part-time nurse faculty are an important part of the nursing education system. It is important that qualified part-time nurse faculty are retained to help manage the current and predicted shortages of nurses. This study provides some answers about the factors that can encourage part-time nurse faculty to remain in the education system.

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Complexity-Based Pedagogy for E-Learning: Description of Emergence in a Graduate Nursing Program

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Abstract

This paper describes the kind of engagement and emergent learning that happened in three different sections of a graduate nursing course. Three nursing educators used an e-learning platform called Daagu that was developed by faculty guided by complexity pedagogy. A total of 43 students were enrolled in the full credit foundations course in theory and philosophy. Authors describe two specific instances of emergent learning: one was expressed by students in relation to a particular resource (article, TedTalk, YouTube, Poem) or discussion, and the second is in relation to specific “aha moments” or shifts in understanding that changed student attitudes and actions. Quotes of emergent learning provide a source of narrative data for conversing about and developing quality e-learning platforms for students and educators.

Keywords

Nursing Education, Complexity Pedagogy, Emergence, E-Learning

1. Introduction

Many educators want to participate in educational experiences that are meaningful, engaged, and transformative. Mureşan [1] directs our attention to the reality that networked/participative learning and Web 2.0 technologies enhance educational opportunities and some authors propose that educators have a responsibility to be innovative when it comes to teaching-learning [2]. The platform being described in this research addresses the need for expanding e-learning opportunities for students and faculty. The platform is called Daagu and is based on a complexity pedagogy that enables student engagement, choice, expression of diverse views, emergent learning, and personal discovery. The purpose of this research report is to present findings from a qualitative analysis of

three different sections of a graduate nursing course taught by three educators using the complexity e-learning platform. Findings show how complexity pedagogy in an e-learning format enabled student engagement, emergent learning, and application of knowledge in new ways. We begin with a brief background on e-learning in higher education.

2. E-Learning in Higher Education

Numerous universities across North America are marketing higher education programs for students looking for flexibility and accessibility. Canada has a Virtual University at <http://www.cvu-uvic.ca/courses.html> offering links to hundreds of degrees and thousands of courses, and there are similar organizations in Australia, the United Kingdom, and United States. Although availability of higher education is clearly present via the Internet, what is not as clear are the pedagogical approaches offered to students in these rapidly developing courses and programs.

Current educational experiences for many students and teachers have been informed by a content driven, teacher as expert pedagogy that has created generations of learners who look to experts to tell them what they need to know and how they should learn what is needed [3] [4] [5]. Informed by Tyler [6] and advanced by behaviourist thinking, the content driven approach typically pre-defines learning objectives, preselects learning material, and arranges content in linear sequences for standardized delivery. A significant limitation of this approach is that students learn to figure out what faculty want, and give the content back without necessarily changing their knowledge, attitudes, and perspectives. The content driven, linear sequencing of curriculum is present in many e-learning platforms available to faculty and students [7]. Oftentimes, teachers take content and place it in PowerPoint slides, with or without voiceover technology and digital streaming, and deliver their content in the usual teacher-as-expert formats with pre-defined learning outcomes. Although university students want e-learning, the major barrier to satisfaction is lack of interaction and engagement [8]. Meaningful engagement is essential to quality education.

There are some notable exceptions to the content driven, linear approaches in teaching. Some groups of educators from various countries are using constructivist [9] [10], connectivist [7] [11] [12], and complexity [3] [5] [13] [14] theories of learning to construct curricula. Although work has been advanced in e-learning constructivist pedagogies, through the Community of Inquiry [9] [10], for instance, there is not yet a coherent e-learning platform informed by complexity pedagogy. One exception to the lack of e-learning in complexity-based education is the work done by Morgan and Adams [15] in leadership education for health professionals. Educators and researchers looking for innovation aligned with new theories, such as complexity, are more often chiseling together learning management systems (LMS) with pre-existing social and networking software. Thus, in the literature one can find constructivists and connectivists using Moodle (an open source LMS) with Wikis, Blogs, Twitter, Face-

book, and gRSShopper [7] in order to integrate the WWW and provide connections and nonlinearity for learners (see for example, [16]).

Evidence from research investigating various pedagogies is not well established [17]. As these and other authors note, more research is needed in order to better understand what learning and what teaching actually benefit students. There is evidence supporting the effectiveness of and satisfaction with web-based learning [18]-[23]. Boling, Hough, Krinsky, Saleem, and Stevens [24] affirmed that students preferred courses that are more interactive and that include multimedia for teaching-learning. But as noted by others, enhanced technology without a change in pedagogy does not alter student experiences [25]. Price and Kirkwood [25] contend there is limited evidence to demonstrate that educators have changed their teaching practices with the introduction of technology, and if they have, how those changes influence the teaching-learning experience. Educators indicate that technology that helps meet students need is more compelling for change, but time and limited resources make changes in actual teaching practices unlikely. Further, many educators have not had opportunity to study and incorporate principles from the emergent pedagogies (constructivism, connectivism, and complexity) that all require student engagement and teacher facilitation in imaginative and meaningful inquiry [13] [24].

The technology (Daagu) used in this research offers a pedagogy informed by complexity thinking for web-based delivery in blended or fully online formats [26] [27]. Curriculum informed by complexity thinking may foster provocative and divergent thinking, deep understanding, and innovative insights that emerge in community discussions [28] [29] [30]. Complexity teaching requires an active, learner-centered approach where students and teachers influence each other's emerging understandings [5] [13]. According to Bonk [31], participatory learning is a central concept in the second global transformation—the shift from education that is content based, behaviorally evaluated, and hierarchical to complexity inspired education that is concept-based, emergent, and participatory—where all people share in each other's learning. He and other leaders are calling for a shift from teacher-centered teaching to student-centered learning [32] [33].

Research evaluating complexity pedagogy is sparse. In some respects the absence of research evaluating complexity pedagogy is surprising given the substantive theory development over the past decade (see for example, [3] [30] [34] [35]). One possible reason may link with the points of disconnect between assumptions of complexity—non-linear change, co-emergent learning, and self-organization—and the assumptions of traditional research that pre-define and predict variables and indicators of change. Relationships, whole human beings who help co-create each other's understandings, and complex realities of interwoven strands and meanings that typify complexity-based pedagogy and discernment are challenging to investigate.

3. Complexity Pedagogy of the Daagu Platform

Daagu provides a coherent framework of functions informed by complexity pe-

pedagogy to facilitate student engagement, community dialogue, divergent thinking, creativity, reflection, and emergent learning through difference [26] [27]. Daagu incorporates multiple formats for inquiry—text, video, image, and audio. The technology was developed at York University by a trans-disciplinary (health, education, and digital media, fine arts) team of educators and technical experts and was funded by the Academic Innovation Fund at York University and the Ontario Centres of Excellence.

The educator in the Daagu platform establishes the liberating-constraints [13] [36] for the course. Liberating constraints are the big ideas or perspectives that set the stage for students' choices of pathways of learning and to help them align their contributions to the curriculum. Daagu leverages different views and experiences in order to challenge assumptions and provoke discussion of issues important to the course of study and student interests. The educator's role in complexity pedagogy involves:

- Setting up the space of engagement by establishing liberating-constraints—the big ideas that will contain course-relevant perspectives.
- Crafting critical questions that require various views and conceptual approaches—stretching the realm of possibility for student engagement with diverging ideas.
- Encouraging reflection and recursion of ideas that foster learners' ability to organize, combine, and inquire.
- Acknowledging emergent learning for learner awareness and growth.
- Encouraging learners to recognize and reflect on their “aha moments” as expressions of learning.
- Encouraging students to contribute resources and discussions to curriculum.
- Recognizing and identifying patterns of thinking across groups of students or across spans of time so as to provoke learners' insights/thinking.
- Provoking, perturbing, and challenging ideas in order to expose unstated assumptions.
- Helping students make connections to neighboring ideas and/or contexts.
- Helping students make explicit the application of ideas/concepts to their practices and day-to-day life activities.
- Encouraging rigor of thinking through meaningful conversation that is open and emergent with others.

4. E-Learning and Complexity Pedagogy

Three graduate nursing faculty at York University chose to pilot complexity pedagogy in the Daagu platform in a full credit course: Theoretical and Philosophical Foundations of Nursing Science, offered in a 12-week term. The sections of the course were capped at 15 masters' level students. A total of 43 students were registered and oriented to the Daagu platform. The masters program at York is a fully online program that uses Moodle to manage student learning. The three educators piloting Daagu had been teaching online with Moodle for more than seven years. The research question addressed in this report is: What does emer-

gent learning look like in an e-learning platform? Emergent learning has been defined as simply “new” learning by Sims [33] and is widely discussed in complexity pedagogy as connected, distributed, or relational learning that cannot be predicted or controlled because it surfaces amid the conversations and explorations of members of the class or community [34] [37].

5. Research Design

The focus of this paper is on qualitative findings and our intent is to describe how students participated in an online course and to address the question of emergent learning. The study received ethical approval from York University’s Ethics Review Board. Of the 43 students in all sections, 21 gave informed consent to complete research interviews, surveys, and questionnaires. All students were informed of the overall introduction of the Daagu platform. Upon completion of the course, researchers gathered 400 pages of text-based interactions from the three sections of the graduate nursing course. Initially, seven content areas were clustered from all course sections and were named in order to organize the large amount of text: “aha moments”, students’ questions to colleagues, student to student learning/discussion, instructor questions to community/students, descriptions of new learning, student expression of feelings/emotions, student contributions to curriculum, and student linking of course content to personal experience. To address the research question about emergent learning, researchers examined content gathered in the two categories of: new learning, and student described “aha moments”. Quotes from consenting students are included in this report. Two researchers identified the seven content areas and all three reviewed, selected, and discussed quotes aligned with categories new learning and “aha moments”.

Students participating in the current study were introduced to complexity pedagogy in the course syllabus where ideas of emergent learning and engagement were described (see **Table 1**). Students were introduced to the complexity assumption that exploration and discussion of different views is generative of new insights or “aha moments”. These shifting insights and described “aha moments” capture a view of emergent learning as it surfaced in three sections of the graduate nursing course.

It is important to point out here that in the Daagu platform students contribute to the curriculum based on their own learning interests and contexts. All participants in the courses contributed links to papers/articles, TedTalks, YouTube, and ArtForms (images, poems), that spoke to them and to the discussion at hand. The teacher’s role, in a general sense, is to share in the collaboration as a connector, perturber, inquirer, and seeker of difference. For example, if a conversation is happening where students are sharing similar views, the teacher may ask if someone has a different view, or s/he may offer an article that presents a different view than the one being expressed.

All students in the three sections engaged with the beta testing version of the e-learning platform in which there were several technological challenges that

Table 1. Content from course syllabus.

Course Perspectives: To help organize the ideas to be explored in the course, we have divided the course content into four broad areas, as follows.

1. *Philosophical assumptions, science, & nursing*

Description: This perspective concerns how sciences are aligned with various philosophical assumptions that guide the way knowledge is understood and created.

2. *Knowledge development, human science, & nursing*

Description: This perspective considers how knowledge has developed in the tradition known as human science, and how human science has developed in nursing. Various schools of thought (e.g., existential phenomenology, critical thinking, social ecology, and others) have informed the development of human science.

3. *Practice & ethical relating in nursing*

Description: This perspective invites students to consider the various ways ethical relating shows up in nursing practice with persons and groups, and as a leader, researcher, and educator. Ethical relating can be viewed as an interpersonal issue, a policy issue, a research happening, and a political reality.

4. *Controversies & intersections in nursing science*

Description: In our very complex world there are many different ideas and issues to consider when it comes to nursing science. Controversies reflect the reality that there are many different views and ways of thinking. Intersections help us see the points when ideas collide or come together to make sense. Both controversies and intersections are important to our evolving understanding.

Overview of Teaching-Learning Approach

Course teaching-learning activities are informed by complexity pedagogy. Complexity pedagogy proposes that all persons in a community of inquiry learn together. Teachers and students come together to engage, share, and question in order to develop personal understandings. Diverse views and different perspectives enable deep learning, and so, in many ways we are all responsible for contributing—not only to our own understanding and growth, but to that of our colleagues and classmates. There are no right and wrong answers in complexity learning. We all have different views and understandings, because our understanding is contextual, historical, and experiential. We are all coming together from a different place to spend time together in a shared quest for insights and emergent learning.

Complexity Pedagogy: Terms and Definitions

Here are some definitions of ideas (informed by the authors [5] [14] [28] [30] [34]) that describe learners' experiences as part of a collaborative community of inquiry.

Reflection: A process of contemplation about one's thinking and actions in specific situations in order to better understand the pros and cons of different ways of thinking and acting.

Recursion: An iterative process of revisiting what one knows in order to see with new eyes, or looping back with the intent to discover again.

Emergent Learning: As students and teachers inter-relate, offering different views and posing different questions, new learning emerges in the shifts of understandings and perspectives. All students and teachers can create teachable moments by introducing different ways of thinking about and acting in various situations.

Perturbations: Disruptions of the status quo created by challenging assumptions, providing alternative views, and asking different questions that expand understandings. Perturbations may point out paradox, ambiguity, and critical aspects of familiar ways of knowing.

Diversity: Difference is needed for deep thinking and critical understanding. Seeing only one way misses the complexities of life and learning. When diverse views are shared, new insights often surface and propel thinking and problem-solving in new ways as difference is considered and conversed about.

Non-linearity: Life, living systems, thinking, and responding are all evolving historically, experientially, reflectively, and non-reflectively, in stops and starts, transformative leaps, and sometimes with unexplainable emergence. Change in living systems and processes cannot be controlled in simple formulas or directives. Living systems are continuously evolving in unpredictable ways.

Relationality: This concept indicates the ways people, things, ideas, preferences, and patterns connect and interrelate. An idea can link with many different experiences, an event might link with many memories, and a concept can connect with particular ideas across multiple contexts in a web of relationality.

were frustrating for both students and faculty. For example, students and faculty could not tell where the most recent posts were and had to search through various discussions to stay on top of conversations. Despite the technological challenges, 80% of student participants indicated that they found the learning experience engaging and meaningful. Involved faculty (current authors) found the complexity pedagogy enabled deep learning and student involvement that we considered substantially different from our other e-learning experiences over the prior seven years. The remainder of the current report will address the research question on emergent learning.

6. Findings

In the analysis of student discussions, emergent learning was clearly identifiable in one of two situations: 1) students describing a (new) change in perspective, attitude, or action that was linked with a particular resource or discussion; and 2) students describing specific “aha moments” or shifts in understanding that were meaningful to them and their learning/practice. Each situation will be described with supporting excerpts from student participants. There were approximately 80 comments/excerpts describing new learning across the three sections of the course. We begin with examples from different course sections of how students described new learning (changes in their perspectives, attitudes, or actions) linked with a specific resource. For example, one student posted the following:

This article by Naef [38] had me thinking after just reading the title. Thinking of bearing witness as a MORAL way of engaging is a wonderful concept. When I tend to think of moral actions in my day they usually involve standing up to a doctor to get my patient appropriate pain meds or letting a family stay well after visitors are supposed to leave. It never occurred to me that the moral action was looking at the patient’s face and “taking on an ethical responsibility for the other”. Such a powerful concept. Conversely, turning away from another is seen as an act of violence—a decision not to bear witness and instead let them suffer alone. Great article that has forced me to reflect on instances in my practice when I may have turned away. (Course Section 1)

Another student offered the following.

I read an article on postcolonialism written by Holmes, Roy, & Perron [39]. Authors stated that, “it is essential that different types of knowledge be made accessible to both care providers and recipients in order to break free from nursing’s colonial past, which is still grounded in post positivism” (p. 49). When I started nursing I worked in an environment that treated non-White nurses with indifference. Non-White nurses that wanted to survive would ally with the white nurses and would assist in the oppression of non-White nurses. The atmosphere was tense and racism was evident. I feel that I took a back seat in this practice and did not speak up to defend the evident discrimination. There was a ringleader involved in this practice and all her troops followed her lead. Non-White nurses did excellent work, yet were not acknowledged and often given heavy as-

signments and not empowered in acute situations even though they had the capabilities. I now know, more than ever, that I supported the colonization of nursing by not doing anything about the situation. I've since had dialogue with many nurses who worked with me back then who share the same feelings that I do, and express what that they could have done things much differently. The article goes on to mention that the (de)colonization of nursing is a highly political process. Therefore one must be ready to be a voice while trying to increase the counter-narrative, as mentioned in the article. Nurses must not only recognize that it is within their power to challenge disciplinary colonization, they have an obligation to actively engage in decolonizing actions in order to begin reversing the effects, and I emphasize.... begin. (Course Section 1).

And another,

Thanks for sharing additional ways of knowing that I had not considered before. Evidenced based practice is great but it should not be our only focus. When we put all our focus on one thing we can often lose sight of bigger things. I would like to add another form of knowing that I read about in the article by Doane & Varcoe [40]. The authors stressed that as nurses we must shift from EBP to inquiry-based practice as it is one way to translate what nurses know and actually do. As an inquirer, the goal is to enter each situation experiencing theoretic and research knowledge anew. We all strive to provide care that is holistic and patient centered, so I will use this information to further develop my skills as a nurse leader and continue to treat each patient as an individual since no two people are exactly alike. Knowledge that I possess is not necessarily going to apply to all my patients/situations. Instead I will listen to my patients and engage them in helping me to learn new things on a daily basis. From reading all the articles this week I came to the conclusion that knowledge is always evolving and we limit ourselves when we stop searching for answers and different ways to do things. (Course Section 2).

And another,

Many times I have relied on knowing what is best for my patients through my EBN practice. This article has helped me look beyond my own thoughts and to realize that there is more than EBN to being a good nurse. One of the ideas that I really appreciated in the Holmes *et al.*, [41] article about the way that the evidence based practice movement has a totalizing perspective that leads us all to look at the world only through that lens. This idea speaks to nurses having the ability to open their thoughts and world positions on what they think are best for the patient. There may not be the same answer for every individual patient, despite what the 'research' shows. (Course Section 3).

One student shared,

One thing in the article *Philosophical Inquiry and the Goals of Nursing: A Critical Approach for Disciplinary Knowledge Development and Action* [42] that intrigued me was the exemplar discussion of the philosophical inquiry of advocacy. I had always taken it for granted that as a nurse I was a "patient advocate" but had never really stopped to reflect on the meaning of this term for me

personally or for the profession of nursing as a whole. Using the philosophical taxonomy I have now realized that advocacy encompasses a whole realm of categorizations. I would say that as nurses our responsibility of advocacy most closely resembles one of “professional advocacy” (42, p. 74]. After reading this article I have come to the understanding that in a philosophical inquiry framework it is not enough to take a term such as advocacy at face value, but instead I must ask the reflective questions behind the meaning of advocacy and critically analyze how it fits in to my practice personally and professionally. (Course Section 3).

Another student wrote:

This is a very intriguing article and a thought-provoking discussion! Coming from a science background with my first undergrad study and working in a highly technological environment setting as an RN, I had never thought of questioning the basis of EBP and its significance in nursing practice prior to reading this article. Bolt stated that “Science-as-research enframes us: it sets a limit on what and how we think and how we interact with the world.” I agree with this statement as I can attest that I never felt as challenged as I am currently in this course to question and critique the knowledge and assumptions that I carry in this nursing profession!! I definitely see the purpose of utilizing EBP as a clinical tool, but I agree with the article that “EBP be re-situated or reconstructed as a collective and organizational responsibility and not the responsibility of individual nurses in practice” ([43], p. 148). How can our organizations create a work environment that values the non-measurable, and promotes the growth of nursing knowledge as emerging and complex rather than simply relying on “evidence”? (Course Section 1)

7. Described “Aha Moments” of Emergent Learning

Students were asked to reflect on their learning and changing understandings throughout the term and reflection on personal views was built into one of the required papers. Students were also asked to take note of and record their insights or “aha moments” as one way to reflect on and map their changing perspectives. Students embraced the “aha moment” idea and recorded more than 70 over the 12 week term. The recorded “aha moments” provide additional insight into how emergent learning shows up in the complexity-based curriculum.

One student noted the following.

I had an “aha moment” that was worthwhile. The YouTube posted, “Alive Inside: Henry’s Story” [44] where Henry came alive with music. Music is one of the few activities that involves using the whole brain and Henry had dementia but responded well to music. My patient is like Henry. He loved singing, music, and reading his bible. After discussing the benefits of music with his family and occupational therapist, his family brought in his favourite music and bible passages in spoken narrative. After introducing the music to the patient, there was a great transformation in his overall demeanor; he was smiling again, agitation was gone and he finally slept at nights (Course Section 2).

And another example:

After reviewing the discussions we had in past weeks I uploaded a picture resource to illustrate one of my “aha moments”. Prior to taking this course I believed that evidenced based practice was the gold standard for knowledge. I truly believed that the best research to guide my practice was empirical in nature, since that was emphasized in my undergraduate learning, and I am constantly reminded of this in my work setting. It was enlightening to know that as nurses we can consider the alternatives to truth and knowledge in the aesthetic work we do in practice. I have now shifted my thinking to the possibility that there is no concrete truth to what is considered knowledge; instead there is a world of possibilities that we must explore. Whether it be inquiry-based, socio-political, moral-ethical or intuitive knowledge I must open my mind to different ways of knowing as it is essential if I want to provide holistic care from a human science perspective. (Course Section 3).

Another student wrote:

What I found to be particularly insightful about her (a nurse author Naef,) story [38], was despite the fact that she was unable to get her patient’s pain adequately managed, the patient, in all his suffering, was able to utter the words, “it’s just enough that you are here”. This was my “aha moment” because I think that we can probably all relate to a time in our career when we felt helpless. I think the YouTube clip also stresses the importance of taking the time to bear witness to our patients. As so powerfully demonstrated in her story, bearing witness can sometimes be the most courageous and respectful response to alleviate suffering, aloneness, and vulnerability [38] (Course Section 2).

One student shared:

Emma Goldman is one of my favourite activists from the early 20th century—although I cannot say I agree with all her tactics she was a strong, committed, dedicated feminist of courage who fought to resist the status quo particularly around gender politics—my “aha moment” came after immersing myself today in several critiques of evidence based nursing (EBN)—and ending up feeling shocked that I have never considered the political agendas behind it—now, of course, the light has come on—EBP as part of the neoliberal agenda to rationalize health services, of course it is! Also surprising to me (exciting too) is the call in Holmes *et al.* [39] article to resist EBN, to overthrow the “tyranny” of exclusive, dominant ideologies—but is there a culture of resistance in nursing? I have my doubts, but then again, this article surprised me in its radical analysis. (Course Section 3).

And another:

The articles about understanding women living with pain [45] [46] were a real eye opener for me, an “aha moment” even, into my own bias and opinions affecting my practice and how I treat certain people. The aspect I found most interesting to note, which I had not previously considered, was the correlation between physical abuse and medically un-diagnosable pain. I know in my experiences with patients who have chronic pain issues or have the diagnosis of fi-

bromyalgia, for example, they are immediately stigmatized. Doctors and nurses don't take these people seriously in the emergency setting. Even I have held similar views. This article has forced me to reconsider the life struggles people have to endure and how they may have negatively impacted their health. Just because medicine doesn't understand it yet doesn't negate the fact that stress (physical, emotional, biological, molecular) has a negative impact on the human body. (Course Section 1).

While a good reading or interesting idea always have the potential to produce new insights for students, in the Daagu platform students followed their own learning interests without an authority telling them what ideas or resources to pursue. One can see in the students' comments that their insights during the course changed about who they are as persons and as professionals. Complexity calls on educators and researchers to look for relationships and patterns of relationships. For instance, sharing and collaborating about diverging ideas may generate new patterns of learning. The quotes above offer insights to better understand how learning happens and how insights emerge with diverse views in an environment that does not have an authority voice. Students demonstrated deep and critical learning in their questions and explicit understandings. We believe the quality of engagement and discussion was amplified in the Daagu platform in new patterns of collaboration and co-discovery. The diversity of thought in complexity e-learning makes it a particularly fertile learning environment.

8. Discussion

Our findings contribute to the discussion about complexity pedagogy and its possibilities for facilitating student engagement, critical thinking, and emergent learning. In order to connect with other conversations about the efficacy of complexity pedagogy [28] [47], we also organize the discussion of findings on emergent learning with Davis, Sumara, and Luce-Keplar's [32] necessary conditions for emergence and new possibilities. The necessary conditions are internal diversity, internal redundancy, neighbor interactions, and decentralized control. We begin with a consideration of internal diversity and its connection to emergent learning in our findings.

9. Internal Diversity

As described above, student participants in this study were introduced to complexity thinking and to the guiding belief that every student's experience and different perspective contributes to the learning community. Internal diversity affiliated with student expressions of difference was thus facilitated by the guiding pedagogy and the educator's explicit valuing of difference. Course directors aligned with the view that expression of diversity is a source of intelligence [48] and that the choice to value and recognize the limits of one's and others' knowledge promotes a critical consciousness [49]. The importance of having different ideas mingle and mix can be traced back to Aristotle and the processes of ex-

pressing and interrogating different ideas is a core belief of democratic societies [50]. Our findings show that students did engage with, and express different perspectives and that diverging views facilitated emergent learning in the Daagu space. For example, recall the students who had not considered that different ways of knowing (ethical, aesthetic, theoretical) can inform nursing practice because their prior education had privileged evidence-based knowledge. Or one student who had not previously considered the role of poverty in self-care and public health. Other authors addressing complexity and constructivist pedagogies in mobile and face-to-face formats report on the relationship between diversity and new learning [47] [51] [52] [53]). De Waard *et al.*, [47] reported that their participants indicated they learned more from course concepts when students from different disciplines expressed their views. More than 90% of 40 participants in the de Waard *et al.*, study responded that they learned from people with different areas of expertise. Herrington, Reeves, and Oliver [51] identify engagement with difference and different perspectives essential for authentic learning environments and for helping students to develop deep and critical thinking about complex issues. Engagement with different views is also a foundation for collaborative learning which has demonstrated improved outcomes and enhanced learning for students [54].

10. Internal Redundancy

Internal redundancy refers to the necessary similarities that facilitate co-activity and communication among participants [34]. In the three sections of the nursing course being addressed here, students were all registered nurses starting in a graduate level, fully online master's program at a Canadian university. The students shared their profession and place in the program. They were all able to understand and communicate in English. The course syllabus laid the ground for the shared definitions of terms and expectations of students and faculty.

Internal redundancies (similarities) complement the diversities and both facilitated the emergent learning in the courses. For example, students shared their common background of a BScN, required for entry to the program, but their experiences of content, philosophy, and values were sufficiently diverse to provoke new learning. More specifically, some students came from baccalaureate programs that emphasized the biological and clinical aspects of nursing while others contributed more human science based, experiential understandings of nursing. The nursing students also had diverse practice experiences from acute, emergent care to community-based and street health. Each influenced the other as shown in student "aha moments" and expressed learning.

Internal redundancy links with research conducted on the phenomenon of common ground, as a necessary requirement for collaboration, learning, and complex problem solving [54] [55] [56]. Kuziemyky and O'Sullivan [55] offer a model that describes development of common ground over time and refer to common ground as a dynamic and evolving requirement for collaboration. Arkoudis *et al.*, [54] wanted to increase opportunities for students to learn from

each other, to explore differences, and expand perspectives and common ground. Researchers focused on enhancing interaction and engagement, especially for students from different cultures and geographic areas. Focus groups with academics and students across three universities generated themes consistent with complexity pedagogy. Specifically, researchers recommended that faculty design curriculum to facilitate engagement with diverse perspectives in order to increase quality of learning. Research supports then that common ground and internal redundancy can be attended to in order to complement the diversity and enhance learning.

11. Neighbour Interactions

Davis, Sumara, and Luce-Kaplar [34] propose that learning is enhanced when specific processes or structures facilitate the rubbing and mixing of different ideas, questions, assumptions, beliefs, and scenarios. Neighbouring ideas need to engage and co-exist in a space or conversation in order to both stretch the borders of possibility by shining light on difference and to increase the opportunities for new insights as neighboring ideas connect and collide. This is one of the roles of the educator in the Daagu platform—to facilitate the expression of different views.

Research by De Waard *et al.* [47] conducted with 40 participants in a MOOC affirmed that participants, offered help, critiqued, and supported other MOOC participants but there was no specific mention of the role of difference and learning. In our research with the graduate nursing students, participants could start new discussions when emergent ideas were sparked, there were multiple instances of student-to-student help with ideas and extension of ideas as students began to see how ideas from one context could be considered and developed in a different context. This is consistent with research by Chang, Sung, & Lee [57] who explored inquiry-based and collaborative learning with first year university students. These authors reported that: “Ninety-four percent of the students (n = 17) agreed that sharing information collected on the web and their personal ideas helped them clarify what they really think. Information sharing mentioned in this study included sharing of products (concept maps), data (notepads), and ideas (dialogue and discussion). The students’ favourite form of sharing was dialogue and discussion, followed by the content of notepads, and, finally, their concept maps” (p. 65).

In some ways the translation of ideas from one context to another, and the understanding that concepts can make sense in one context but not in another, relates to the insights of author Nicolescu [58]. Nicolescu developed a method for transdisciplinarity and a new way of thinking about levels of reality, knowledge, and human experience. Understanding that ideas shift in meaning and possibility across time and across contexts helps to deepen learning. Our findings show that as students began to engage with ideas across contexts, it became easier for them to see how multiple ideas and knowledges are relevant, or not, when considered in light of different patient contexts or different time frames of

health and care. For example, simple causality makes sense when considering the relationship between hand washing and spread of bacteria, but fails to make sense when considering how human beings make decisions or grieve a loss. Embracing levels of reality and the continuity and discontinuity of ideas and concepts expands possibilities for new understanding and infinite questions [58].

Student participants in our course sections embraced the generative role of questions and often posed additional questions when classmates opened up topics for inquiry. Because students contributed to the curriculum with their own quests, resources, and questions to classmates, they were numerous instances across the three sections of the course that show both the power of questions over answers, as well as the cascading influence of questions and different ideas. Students' multiple contributions to the curriculum using various papers, YouTube, TedTalks, and poems prompts us to the next necessary condition for emergence, decentralized control [34].

12. Decentralized Control

It was essential to create the openness for student additions to the curriculum and their expressions of personal experiences by establishing safe space that had no authoritative figure or presence directing decisions and making judgments of right and wrong thinking. If you recall, from the outset with the syllabus, students were introduced to complexity thinking and how it would guide our relating in the e-learning platform. The students knew that we (educators) wanted to engage with different ideas and to hear how students understood ideas in their practices and personal lives. These students embraced the opportunity to express, contribute, question, and explore. The curriculum grew exponentially in the Daagu platform as students experienced the freedom to contribute to the learning community.

Participants in the MOOC research de Waard *et al.*, study, [47] also had the freedom to contribute to the curriculum of the MOOC and to express and start discussions. The majority of these participants felt connected and engaged with others in the MOOC. Similar to findings in our study, participants collaborated and contributed to learning of fellow classmates. Freedom or student control plays an important role in how learning happens in educational arenas—including and perhaps especially in e-learning [59]. Peters and Araya [59] describe how society has moved from the simplistic linear mode of production (train the trainer) to distributed or many-to-many production—networks are now the source of all kinds of production in our personal and work lives.

In our course sections using the complexity e-learning platform, students contributed dozens of resources to the curriculum. Resources that any one educator may never have encountered or thought important. The student-to-student engagement increased the networks for new learning in unpredictable ways. Further, in the e-learning platform, students also had access to the resources used by faculty and students in other course sections, greatly increasing the possible connections for engaging, learning, and growth while pursuing their

inquiries according to their own interests. We propose it would not have been possible or desirable to try to control and harness the students' learning experiences. The student networks that formed generated far more possibilities for meaningful learning.

13. Engagement and Patterns of Emergent Learning

What does student engagement look like? In the complexity e-learning platform called Daagu, student engagement included the following:

- disclosing personal thoughts and experiences to classmates
- questioning one's beliefs and assumptions
- offering resources and helpful links to the community
- conversing about difficult and challenging situations
- reflecting on insights and "aha moments"
- describing changes in understanding, attitudes, and actions
- exploring different ways of perceiving, thinking, and being
- understanding the continuity and discontinuity of knowledge across levels and contexts

An extensive review of student engagement—its history, definitions, scope, and role in high quality education, from a traditional research perspective, can be accessed in the article by McCormick, Kinzie, & Gonyea [60]. In their consideration of a more "sophisticated" consideration of student engagement these authors suggest that there are patterns of engagement that exist and these patterns influence outcomes. We concur that student engagement is important and educators/institutions have a responsibility to create spaces for meaningful student engagement to happen. In the Daagu platform engagement was witnessed as students took control of their own exploring and learning and sharing. Students were passionate about sharing what and how they were learning. We know the learning was meaningful because the students elaborated differences in their thinking and acting. Students expressed surprise and change with their insights.

At this very early point in the exploration of complexity-based e-learning and student engagement, we suggest that a pattern of student engagement emerged in our courses and the complexity pedagogy was embraced by most students. One dominant pattern of emergence was the engagement with the "aha moment" concept and the expression of when, how, and what related to the moments of insight. Details of how students engaged with the curriculum and their specific "aha moments" will be described in a different publication.

14. Limitations of the Study

Complexity research in e-learning is just beginning and our explication of emergent learning in three sections of a graduate nursing course offers one place to start a dialogue about what difference complexity pedagogy can make. In this time when formal education is facing intense challenges relating to relevance and sustainability, educators need to seriously reflect on the effectiveness of teaching methods and modes of delivery. This report is intended to contribute to

the conversation of complexity and possibility. The descriptions of emergent learning presented here were from predominantly female students in a nursing program. Research with mixed gender participants is needed. The three authors are colleagues and have worked together for numerous years so there was a high degree of trust and collaboration. Ideally, we would like to compare student experiences in course sections where faculty use different pedagogical approaches and e-learning platforms to better understand emergent learning. Comparative studies may be possible as more educators adopt the e-learning mode of delivery. We also recognize that complexity pedagogy is probably not be a good fit for faculty who value control and authority. Educators must be willing to take the risk to trust students and to let lose the distributed learning of a collective and collaborative group. The first author also led the team that created the Daagu platform and has an interest in its adoption as an alternative e-learning platform.

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Development of Nursing Research in Qatar: 15-Year Status Report

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Abstract

Purpose: The aim was to provide an overview of nursing research in Qatar over the previous 15 years. **Methods:** Several online databases were searched for published articles between 2000 and 2015 related to nursing research in Qatar. **Findings:** The initial search identified 6540 articles, whose titles, abstracts, and texts were screened for satisfying the eligibility criteria. Only 57 articles met the eligibility criteria. The highest percentage of studies (42%) focused on clinical practice issues. Eighty-seven percent (87%) were published in peer-reviewed journals; 84% (N = 48) were conducted between 2011 and 2015 with 16-fold growth rate compared to 2000-2005. The majority of authors were postgraduate qualified nurses, mainly 67% of them with hospital and academic affiliation (88%). The vast majority of identified studies were conducted in hospital settings (63%), and only 14% of the studies used a nursing theory or conceptual framework. Sixty-three percent (63%) of the studies were quantitative, and 25% were funded mostly by hospitals. The majority of the included studies have been done in collaboration with other disciplines (60%), especially with physicians (65%). **Conclusion:** Nursing research in Qatar has dramatically developed and improved over the last 15 years. However, nurses need to be more motivated to conduct and publish research in collaboration with national, regional, and international research bodies. **Implications for Nursing & Health Policy:** Building and sustaining nursing research infrastructure considered as a top priority for nursing leaders, academic, and ministry of public health in Qatar. Furthermore, preparing nurses with higher academic degrees is an essential step in advancing research utilization in Qatar and the region.

Keywords

Literature Review, Nursing, Research, Nurses, Qatar

1. Introduction

From a global perspective, nursing research utilizes solid scientific methods that offer a robust body of knowledge for nursing practice advancement, health care policy establishment, and public health awareness promotion [1] [2]. The nursing research aims to enhance the overall wellbeing of the people as well as make health care providers informed about recent health care trends [3] [4]. The holistic approach is considered as one of the foundations of nursing research in which individuals', families' and communities' needs will be addressed [1]. This perspective involves an interdisciplinary and translational approach to science [5].

Nursing research priorities include promotion of the healthy lifestyles among the public, informing health care professionals about advanced health practices, maximizing the quality of the delivered care, and most importantly promoting the utilizing of evidence-based practice in nursing profession [4]. Nursing research can be defined broadly as “systematic inquiry designed to develop knowledge about issues of importance to the nursing profession, including nursing practice, education, administration, and informatics” [5]. On the other hand, a narrow definition of the nursing research could be “a scientific process that validates and refines existing knowledge and generates new knowledge that directly and indirectly influences clinical nursing practice” [6]. For an extended period of time, nursing has been considered as a vocation instead of a profession [7]. It has been reported by the nursing scholars that nursing knowledge has been borrowed from other fields such as sociology, psychology, and health sciences [2]. Nevertheless, most recently, a distinct body of knowledge has been established, and this assists in the identification of nursing as a unique profession [2]. Florence Nightingale is the first person who has recognized the necessity of collecting scientific data in nursing [8].

Clinical nursing research had been recommended early by Florence Nightingale in the mid-1800s; however; until more than 100 years later this recommendation was followed by the nursing bodies [9]. Studies about environmental health hazards are examples of the recent application of Florence Nightingale notions nowadays [8]. Furthermore, it is only recently that scholars have appreciated Florence Nightingale as distinguished women and scientist in the nursing field due to her contribution to the nursing profession [9]. Indeed, nursing profession can be developed, and distinct body of knowledge can be established if the nurses adhere to the recommendations of their ancient leaders [2].

It has been evident that educational level of nurses plays an important role in the growth of nursing research [5]. Since 1909, the United States had started to teach nursing profession as university-based degree; however, the growth of these educational programs was very slow [10]. From a different perspective, in the European countries, nursing programs had been started lately in the 1980s, but the number of these programs was progressing dramatically [11]. The evolution of nursing profession and inquiry in the Arab countries is relatively new compared to Europe and North America [12]. However, among the Middle East

Arab countries, nursing research began early in Jordan, where the first nursing research paper was published in 1951 [13].

2. Purpose and Significance

The main aim of this review paper was to provide an overview of nursing research in the state of Qatar for the last 15 years. The following themes have been utilized to guide this review: the researched topic, affiliation of the authors, methodological aspects such as the source of data collection, as well as source of funding. The finding of this review could provide more information on the current status of nursing research in Qatar.

3. Methodology

Search Strategy

Several online databases were searched including: CINAHL (Cumulative Index to Nursing and Allied Health Literature), MEDLINE (Medical Literature on-Line), Google Scholar, and PubMed. The following keywords were used: nursing, Qatar, research, nurses. All full-text articles of studies conducted in Qatar by nurses, in collaboration with nurses, or with nurse participants, published in English, and carried out between 2000 and 2015, were included in this review.

The initial search results included a total 6540 including research articles, academic works such as Master theses and Ph.D. dissertations, discussion papers, case studies, and conference abstracts. The titles, abstracts, and texts of these articles were screened for both inclusion and exclusion criteria. However, after applying the present review eligibility criteria, the authors included only 57 studies. Those included studies are associated with nursing profession in Qatar or carried out by nursing scholars lives in Qatar (see **Figure 1**).

After obtaining these articles from the Hamad Medical Library, the researchers read the abstract section for all of the 57 retrieved articles. A data extraction template was developed to assist in extracting the needed data from each article. The publication year, main topic, journal status (Peer-reviewed or not; national, regional or international), affiliation (e.g., academic, hospital, public health .. etc.), qualifications of nursing authors (e.g., BSN, MSN or PhD), methodology aspects like data collection, study settings, study language, funding source, and utilization of theoretical or conceptual framework and extent of collaboration with other disciplines were all recorded.

During the critical evaluation process, one of the researchers read and eva-



Figure 1. Selection process.

luated each of the included articles; and the data extraction template was completed at this time. To validate this process, a research assistant reevaluated each of the included studies. Any identified discrepancies between these two evaluations were resolved through discussions and further clarification.

4. Findings

4.1. Overview

Five percent (5%) of the included studies were published between 2000 and 2005 ($n = 3$), 11% were published between 2006 and 2010 ($n = 6$), and 84% of the articles were published between 2011 and 2015 ($n = 48$). This represents a 16-fold growth of the research rate from 2011 to 2015. In the next sections, the authors of this review paper will present the identified studies in accordance with the following themes: Journal type, professional affiliation and academic qualification, the source of data collection, theoretical or conceptual framework, funding source, collaboration with other researchers, study topic and study participants.

4.2. Journal Type

Eighty-seven (87%) percent of the articles were published in peer-reviewed journals ($n = 47$), and 13% of the articles were published in non-peer reviewed journals ($n = 7$). Three out of the 57 of the included articles were theses and dissertations that published on-line.

4.3. Professional Affiliation and Academic Qualifications

Eighty-eight (88%) percent of the authors are affiliated with a hospital or academic institutions ($n = 50$). Of these authors, 40% are affiliated with a hospital ($n = 23$), 25% have academic affiliations ($n = 14$), and 33% have multiple affiliations ($n = 19$). Only 2% of the authors have a community or public health affiliations ($n = 1$).

From a different perspective, the majority of authors are postgraduate qualified nurses (67%): 40% have a Ph.D. ($n = 23$), and 26% have a master's degree ($n = 15$). Concerning the authors who have an undergraduate degree, the results indicated that 12% of them are nurses with a Bachelor degree ($n = 7$) and 21% are researchers from non-nursing disciplines ($n = 12$).

4.4. Sources of Data Collection

It was observed that private healthcare sector research is still in its infancy compared with the governmental health care sector research initiatives in Qatar. Sixty-three (63%) percent of the revised articles had samples drawn from hospitals ($n = 36$), while only 12% had samples drawn from community settings ($n = 7$) and only 8% had samples drawn from academic settings ($n = 4$). Five percent (5%) of the studies recruited their samples from both hospital and community settings ($n = 3$). No sample was identified in 12% of the articles, as they were review articles ($n = 7$).

4.5. Theoretical or Conceptual Framework

Of the 57 studies included in this review, 86% did not use any nursing theory or conceptual framework to guide their research (n = 49). On the other hand, only 14% of the identified studies utilized nursing theory or conceptual framework (n = 8).

4.6. Study Design

Sixty-three percent (63%) of the studies utilized a quantitative approach (n = 36); whereas, 18% of the revised articles used a qualitative approach (n = 10). Almost 19% of articles were literature reviews (n = 11).

4.7. Funding Source

Funding was reported in 25% of the studies (n = 14). This funding was primarily through Hamad Medical Corporation (HMC). No funding or no specification of the source of funding was found in 75% of the studies (n = 43). None of the articles noted an external regional or international source of funding. This might be due to the availability of internal or local funding sources, which removes any serious motivation to apply for external funding.

4.8. External Collaboration

Nursing research in Qatar has largely been done in collaboration with other disciplines (60%; n = 34). This collaboration was mostly with physicians (65%), allied health professionals (15%), and pharmacists (12%). The remaining 8% of collaborative articles included multiple professions. Forty percent (40%) of the 57 articles included in this review were written solely by nurses (n = 23).

4.9. Research Topic

Clinical practice issues were the focus of 42% of the revised studies (n = 24). This was a favorite topic for nurses, especially when conducting research studies in collaboration with physicians. The remaining 58% of the revised articles focused on five main topics: nursing education (17.5%; n = 10); public health (16%; n = 9); nursing management (12%; n = 7); occupational health (9%; n = 5); and sociocultural issues (3.5%; n = 2).

4.10. Study Participants

The results of this review indicated that revised studied population included participants from hospitals (63%; n = 36), community settings (18%; n = 10), and academic settings, such as nursing students (7%; n = 4). The remaining 12% of the included studies were literature reviews papers (n = 7).

5. Discussion

5.1. History of Research Development

The present review paper could be considered worthy for nursing scholars in-

ternationally especially for those in the Arab world because it evaluates and tracks the development of nursing research in Qatar. The results of this review revealed that the evolution of nursing research in Qatar is very recent; real scientific research work did not start until the 2000s. The growth of scientific research in the twentieth century has matched the development of nursing education in Qatar and the arrival of qualified expatriates from different regions in the world. It's difficult to compare the progress of nursing inquiry in Qatar to other states around the world, in particular with a lack of supporting evidence and huge differences in population, educational systems, and nursing professions, Eighty-four percent (84%) of the research articles published over the last 15 years have been published in the previous five years ($n = 48$), and 87% of the articles have been published in peer-reviewed journals ($n = 50$).

5.2. Factors Affecting Research Development

The 16-fold growth rate in research in Qatar over the last five years happened due to several changes and challenges in the healthcare system. These changes including social acceptance of nursing, technological advancements such as availability of access to regional and international journals, consumer demands of high-quality care, and emergent of complex bioethical dilemmas. Such environmental requires that nurses should be educationally qualified, capable of transforming evidence into practice in order to satisfy the needs of the clients from different backgrounds as well as deliver the best quality of care.

5.3. Importance of Nursing Education

Nurses with higher academic qualifications (such as those with master's and doctoral degrees) are more competent to expand and refine nursing research than other nurses with lower educational qualifications [7]. Nelms and Lane illustrated that in 1965 the American Association of Colleges of Nursing documented that it is imperative that to prepare nurses with essential knowledge in nursing, psychology, sociology, humanities and other health sciences fields in order to be able to think creatively, critically and find solutions to the complex and diverse nursing practices [14]. Recent trends in hiring highly qualified nurses and Academic Health System (AHS) could be another reason for the research boom in Qatar over the past few years [15]. This can be seen in the present study wherein 40% of authors had doctoral degrees in nursing, and 26% of them had a master's degree.

5.4. Hamad Medical Corporation (HMC) Status

In the last few years, HMC started and maintained its dynamic process of transformation that directed toward upgrading its clinical settings into factual Academic and Research Health Centers [15]. Establishing a successful Academic Health System is the ultimate goal of HMC. Such academic system can make connections between research, education and clinical practices, as well as can empower HMC by linking relevant academic partners and stakeholders in health

arena with HMC. Nowadays, HMC has partnership agreements with several academic organizations in Qatar as well as around the world such as Sidra Medical and Research Center (SMRC), Qatar University, College of the North Atlantic—Qatar, Weill Cornell Medical College in Qatar (WCMC-Q), the University of Calgary—Qatar, and numerous primary health care centers [15].

5.5. Contribution of Other Disciplines in Nursing Science

Nursing scholars reported that researchers from other disciplines played a major role in establishing the early foundation of nursing knowledge through conducting of different studies that contribute to the nursing field [7]. This happens because most of the early nurses were not qualified to conduct research [16]. Beginning with the Gold Mark Report in 1923, non-nurses became involved in studying nursing related issues [17]. The process of “living, learning, and working” that adopted by numerous nurses is borrowed from the sociologists [18]. The research conducted by sociologists and behavioral scientists added to their respective bodies of knowledge but did not necessarily expand nursing’s body of knowledge [19]. This is reflected in the current body of nursing literature based in Qatar; 60% of the nursing research from Qatar has been done in collaboration with other disciplines, and only 40% has been done by only by nurses.

5.6. Research Focus Area

In the Canadian context, more than half of the conducted studies were addressed health promotion, health issues, and health service organization [16]. Few Canadian studies have investigated instruments’ development, research dissemination, and utilization, environment, in addition to patient safety [16]. Australian authors focused mainly on the nursing education practice, as well as other professional topics [20]. In 2013, Dr. Khalaf found that nursing management was the most researched area in Jordan, followed by health promotion. On the other hand, nursing education, the gap between practice and education, best strategies in teaching and learning were received little attention in the Jordanian literature [13]. The current literature review indicated that the highest percentage of studies conducted in Qatar was focused on clinical practice issues, especially in collaboration with physicians. Nursing education (17.5%), public health (16%), nursing management (12%), occupational health (9%), and sociocultural studies (3.5%) were also investigated.

5.7. Research Setting and Context

Most studies in Qatar were conducted in hospital settings (63%). This may be because most of the researchers were working in hospital settings (88%). Other studies recruited the participants from community settings (12%), academic settings (8%), as well as community settings (5%), while 7% were literature reviews with no sample identification. These results are congruent with the Khalafs’ study (2013). Moreover, Borbasi and colleagues’ study reported that major

health issues were received little attention in the Australian literature because the collected data were used mainly to describe nurse and patients [20]. While Moreno-Casbas recommended that nursing research should pay more attention to the clinical issues and patients' needs [21]. Nevertheless, current research is more associated with the nursing profession instead of clients' needs.

5.8. Research Theoretical Framework

Analysis of all the research studies done in Qatar showed that only 14% of them utilized a conceptual or theoretical framework that derived from nursing field. Similarly, in the Jordanian context, Khalafs' study revealed that only a few studies (11%) used a theoretical framework from nursing field [13]. On the other hand, Bond and colleagues reported that about half of the revised studies in their literature review utilized nursing theoretical or conceptual framework [22]. Other scholars like Barrett [23] and Fawcett [24] documented that conducting nursing studies depending on theories from fields other than nursing will not make any progress in nursing science, skills, nor practice.

5.9. Research Design

Walker reported that descriptive and correlational designs can be set as the baseline for future research in the same field and can promote nursing profession development; however; there is a massive need for experimental or interventional research designs [25]. Sixty-three percent (63%) of the authors of articles revised for this study selected quantitative approach for their studies. The qualitative approach was used in 18% of the articles, and the remaining 19% of reviewed articles were literature reviews. These results are comparable to the previous literature results in different countries [13] [20] [26].

5.10. Funding Source

It has been reported that European nursing research is funded by three major methods: public sector fund; non-profit organizations; and National Nurses' Associations (NNAs) [11]. The authors' reported that Canadian national organizations are responsible for funding nursing research in Canada [16]. Concerning Arab world, nursing research fund in Jordan can be obtained from national and international organizations [13]. In Qatar, most of the revised studies (75%) did not mention the specific source of fund. The rest studies (25%) were mainly obtained fund through the Medical Research Center (MRC) at HMC. No external regional or international funding was specified, which might be due to the availability of internal funding sources and the resultant lack of serious motivation to apply for funding. Although, funding of researchers can come from the Centers or the institutes where the researchers are conducted for instance; Qatar University. Researchers can also be granted by governmental agencies and councils such as Qatar National Research Fund (QNRF), SMRC, HMC, Barwa & Qatari Diar Research Institute (BQDRI), and other funding facilities [27].

6. Limitations and Recommendations

While this literature review has presented information about nursing research in Qatar, in-depth analysis of the articles were not possible due to the massive variability in the articles reviewed. This might be considered as a limitation. Therefore, future work on the quality of published research and contribution to nursing practice is highly recommended. While the authors of this article have done an exhaustive search, they may have missed some eligible publications, which may also limit the findings of this study. Dr. Khalaf strongly recommended building local research databases for published nursing studies all states over the world; such databases could help in establishing priorities for nursing research at the national level, revising what has been explored in the past, and suggest recommendations for future research topics that may build up a robust nursing knowledge [13]. If these strategies are successfully implemented, they will promote nursing education, research, practice, and the overall nursing profession in Qatar and the Middle East region. Clinical relevance includes investigations about regional needs, primary care, as well as community-based services (like rehabilitation, geriatrics, and maternity services). Building collaboration affairs between academic institutions and clinical settings (such partnerships) can aid in determining research areas that required immediate attention [20]. Research utilization that incorporates implementing research results in the clinical practice is the most important step to advance the nursing profession.

7. Conclusions

This study was modeled on Dr. Khalaf's study [13]. It was found that only a few studies were carried out by nurses in Qatar. Research characteristics and authorship were analyzed, including what and how nurses are conducting research studies, with whom they are doing research, where they are conducting their research, and whether or not they receive funding.

The results indicate that the publishing rate of nurses has increased 16-fold between 2000 and 2015. Nurses in Qatar have published predominantly in peer-reviewed journals. Clinical practice remained the favorite topic of research. A low percentage of research was funded, and nurses received little national grant funding. The increase in the number of post-graduate nurses in Qatar has positively affected the development of research, in particular with the establishment of the University of Calgary campus in Qatar (UCQ) in 2007 and the introduction of undergraduate and graduate programs which are sponsored by HMC and focus on Nursing Leadership and Oncology [28].

8. Implications for Nursing and Health Policy

Today's sophisticated, multifaceted healthcare challenges are not amenable to "isolated-islands" research approaches, where each profession/discipline is conducting their research. Building and sustaining nursing research infrastructure considered as a top priority for nursing leaders (in collaboration with other disciplines), academic bodies, and Ministry of Public Health (MoPH) in Qatar.

Serious effort should be made to encourage nurses to study, implement, and utilize evidenced-based research by providing administrative support as the most influencing and facilitating factor for research implementation and utilization. Strategies need to be put in place to encourage the dissemination of research by providing professional writing assistance, conducting evidenced-based practice workshops and supporting nurses to attend and contribute to national, regional and international conferences.

Funds should be made available by governments through funding organizations for increased support of nursing and healthcare research priorities. An appraisal of research capability and outcomes needs to be conducted periodically to come up with recommendations to stakeholders and government for any necessary action plan.

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Clinical Supervision and Non-Technical Professional Development Skills in the Context of Patient Safety—The Views of Nurse Specialist Students

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Abstract

The aim of the study was to evaluate nurse specialist students' views of clinical supervision (CS) and its influence on their professional competence development. An additional aim was to interpret the results and link them to non-technical skills and Patient Safety (PS) topics. The research question was: What are the benefits of clinical supervision focusing on non-technical skills in the area of PS? A cross-sectional study of 46 nurse specialist students was conducted by means of questionnaires and exploratory factor analysis. Factors that influenced the nurse specialist students' competencies were: interpersonal, professional and communication skills in addition to awareness of ethical skills, the importance of teamwork and the benefit of involving patients and their family members in safe care. The results were linked to non-technical skills and PS competencies. Clinical supervision is crucial for the development of non-technical skills and PS competencies among nurse specialist students. However, finding time to reflect and learn from the supervision was reported to be a problem. Over half of the students stated they did not have enough time for supervision. Thus, there is a potential for quality improvement. We recommend that universities should provide formal educational programmes for supervisors focusing on the professional development of students, especially in the area of non-technical skills. In conclusion, CS should be prioritised by management and clinical leaders as it enhances PS.

Keywords

Clinical Supervision, Non-Technical Skills, Nurse Specialist Students, Patient Safety, Professional Development

1. Introduction

This study focuses on nurse specialist students (NSS) in the final phase of their postgraduate education in surgical, oncology, anaesthesia and intensive care nursing. The education comprises both a theoretical and a clinical part. Clinical supervision (CS) and systematic reflection on clinical experiences constitute an important component of the education. Supervisors are in a unique position to facilitate learning processes and promote the students' professional growth and identity building as specialist nurses [1] [2]. However, many clinical nurse supervisors in Norway have no formal qualifications or training for supervision. The supervisor's role is significant for the quality of supervision and a systematic structure enhances the students' professional development, leading to positive outcomes in terms of quality and patient safety (PS) [3]. Empirical research has focused on different models of supervision, effectiveness and quality of care as well as on ethical issues [3]. There are several definitions of CS and Lyth [4] underlined the difficulty of clarifying the concept, as nursing practice varies. An article by Proctor [5] identified three components of supervision: normative (standard setting), formative (development) and restorative (support), which have been adopted by the nursing profession as key elements in the CS literature [6]. These three components have stood the test of time, thus the purpose and content of CS encompasses one or a combination of the following: a learning, supportive and monitoring process [6]. In this paper, CS is defined as a pedagogical human development process, in which the participants raise questions, explore, explain and systematize care experiences from a perspective that is considered holistic in the professional context [7].

PS is the cornerstone of high quality healthcare [8]. Systematic development of PS is necessary as poor quality care causes human suffering [9]. Much of the work defining PS and practices that prevent harm has focused on negative care outcomes, such as mortality and morbidity [8]. Patient safety culture is a subset of the organizational culture relating specifically to the values and beliefs concerning PS [10]. Mustard [11] (p. 112) defined the patient safety culture as "a product of social learning, ways of thinking and behaving that are shared and that work to meet the primary objective of patient safety". Implementation of PS requires evidence-based knowledge, professional staff and financial resources [12]. Thus, the quality of care is dependent on nurses' professional competence and the use of the best evidence in practice [13].

Work remains to be done in evaluating how PS competencies can be learnt and how knowledge, skills and attitudes that enhance PS can be developed [14] [15]. According to Sullivan *et al.* [16], a major national initiative in the US, Quality and Safety Education for Nurses (QSEN), attempted to define competencies for nursing students. The primary goal was to address the challenge of providing future nurses with the necessary knowledge, skills and attitudes to continuously improve the quality and safety of the healthcare systems in which they work [17]. The competencies are supported by The WHO [18] safety curriculum guidelines and include patient-centred care, teamwork and collabora-

tion, evidence-based practice, quality improvement and safety, as well as the use of informatics. Altmiller [1] demonstrated how the competencies can be transferred to a nurse specialist role. Patients undergoing surgery are at the highest risk of harm and adverse healthcare events [19]. A reason for this is the surgery team, which often consists of two surgical nurses, an anaesthesia nurse, an anaesthesia physician and at least one operating physician. Each professional must have the competence to manage her/his own professional work and know how to coordinate it with that of the other team members [20]. As lack of coordination and cooperation in the operating theatre poses a threat to PS, teamwork competence must be developed during the NSS education.

Flin *et al.* [21] (p. 1) define non-technical skills as “the cognitive, social and personal resource skills that complement technical skills, and contribute to safe and efficient task performance”. Rasmussen *et al.* [22] identified the following set of non-technical skills for surgical nurses: 1) Cognitive skills, which involve making use of knowledge and experiences, understanding the situation, perceiving changes and considering measures; 2) Cooperative skills, which include understanding the division of work in the team, adjusting one’s own duties to those of the other team members and ability to communicate; 3) Self-management skills, which encompass exhibiting self-control, a professional manner and working under time pressure; 4) Ethical skills, examples of which are showing respect, contributing to a positive work climate and having a caring attitude towards patients and colleagues.

We focused on the influence of CS on professional development related to PS. In addition, we would like to compare the results of this study with the evidence of PS competencies as recommended by the QSEN (2003), [21], Flin *et al.* [22] Rasmussen *et al.* [22] and Patient Safety Topics as identified by Jha *et al.* [15]. A PS curriculum strengthens the necessary attitudes, behaviours and skills, making it a prerequisite for healthcare education and training to enhance PS [23]. This underlines the importance of evaluating clinical training and the way in which CS influences nursing practice.

Aim

The aim of the study was to evaluate nurse specialist students’ views of CS and its influence on their professional competence development. An additional aim was to interpret the results and link them to non-technical skills and Patient Safety (PS) topics. The research question was: What are the benefits of CS focusing on non-technical skills in the area of PS?

2. Methods

2.1. Design

This study had a descriptive-correlational design [24]. Data were collected from NSS in Norway, using a package of instruments to measure the influence of CS, the students’ views on the benefit of supervision, as well as their perceptions of the involvement of patients and family members in safe care.

2.2. Sample

All registered NSS (n = 56) taking part in the Postgraduate education at the University College in June 2015 were eligible to participate in the study, which included four healthcare contexts. The questionnaire was distributed to the participants at the end of their clinical placements during the final semester of their education. In total, 46 NSS (8 anaesthesia, 11 intensive care, 14 operation/surgical and 13 oncological care) completed and returned the questionnaire to the first author. The response rate was 82%. The characteristics of the participants are presented in **Table 1**.

2.3. Measures

The questionnaire included three instruments: the Manchester Clinical Supervision Scale (MCSS) [25] [26], the Effects of Supervision Scale (ESS), [7] designed to measure nurses' views of the effectiveness of CS and the Focus on Empowerment Supervision Scale (FESS) [27], that illuminates user involvement, nursing documentation and the influence of supervision, in addition to providing demographic data.

2.3.1. The Manchester Clinical Supervision Scale

The participants were asked to rate 36 items divided into seven factors; Trust/Rapport, Supervisor advice/support, Improved care/skills, Importance value of CS, Finding time, Personal issues and Reflection (MCSS) [25] [26]. The response alternatives for items such as "Clinical supervision improves the quality of care I give to my patients" and "Supervision gives me time to reflect" ranged from 1 (strongly disagree) to 5 (strongly agree). In a previous study the reliability score

Table 1. Demographic characteristics of the students.

Sample characteristics	N = 46*
Age, years, med (q1 - q3)	36.5 (31.0 - 39.3)
Female gender	42 (91.3 %)
Previous work experience, years, med (q1 - q3)	10.0 (6.0 - 13.3)
Speciality, No (%)	
Anaesthesia	8 (17.4 %)
Intensive care	11 (23.9%)
Operation/Surgery	14 (30.4%)
Oncology	13 (28.3%)
Female supervisor	42 (93.3%)
Supervisor education	
No	7 (15.2%)
Yes	11 (23.9%)
Did not know	28 (60.9%)

*Due to internal missing data, N varies between 44 and 46.

for the full-item scale was 0.86 [26].

2.3.2. The Effects of Supervision Scale

The 25 items from the Effects of Supervision Scale (ESS) were used to measure what the students had learnt in CS. Examples of items are: “I can deal with difficult caring situations”, “I realize when I need help from others” and “I can plan more easily together with the patient” [7]. The ESS comprises three sub-scales: Interprofessional skills, Professional skills and Communication skills with responses indicated on a 4-point scale ranging from strongly disagree to strongly agree. The known reliability is 0.96 [28].

2.3.3. The Focus on Empowerment Supervision Scale

The Focus on Empowerment Supervision Scale (FESS) is a 24 item instrument that measures nurses’ perceptions of empowerment, documentation, the influence of CS, involving users by preserving their integrity and enabling the participation of the patient and her/his family in decision-making [27] [29]. The participants were asked to rate items on a Likert scale with scores ranging from 1 (strongly disagree) to 4 (strongly agree). Examples of items of pertaining to perceptions of the influence of supervision, documentation and user involvement in the nursing process are: “I am satisfied with the learning situation at my clinical practicum” and “I cooperate with the patient in all parts of the problem-solving process”. The two factor solution yielded a Cronbach’s alpha score of 0.84 [27].

2.4. Data Analysis

Descriptive and correlational analyses were employed in the analytic procedures. The statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS) PC-version 20.0 for Windows [30]. A $P = 0.05$ was considered statistically significant. A factor analysis with varimax rotation [24] was performed to condense the number of the items in the instruments and to identify factors with common characteristics. Cronbach’s alpha was applied to established internal consistency. Differences in the responses between the groups were tested by the Mann-Whitney U-test [31] and the Spearman rank correlation coefficient was used to calculate the correlation between the factors.

2.5. Ethical Considerations

The study followed the guidelines for research set out in the Helsinki declaration [32]. The study was approved by the Head of the Institute of Nursing and the Dean of the Faculty of a University College on the east coast of Norway. In addition, the principles of confidentiality, voluntariness and informed consent were adhered to. The participants received information about the purpose of the study and indicated their consent by giving the completed consent form to their principal tutor. The data were stored in accordance with the university regulations. Permission to use the MCSS was obtained from the copyright holder, Dr. J. Winstanley (personal contact, Australia).

3. Results

3.1. Demographic Characteristics of Participants, Frequency of Sessions and Context of Supervision

Of the 46 participants 42 were female, their mean age was 36.5 years (standard deviation (SD); range, 31.0 - 39.3) and they had 10 years of work experience (Table 1). They all had previous experience of supervision but it differed in terms of frequency, as 27 (58.6%) had supervision daily, 14 (30.4%) once a week, three (6.5%) every second week and two (4.3%) once per month during their postgraduate education. The supervision took place during work ($n = 27$), in a separate room ($n = 2$) and both settings ($n = 17$). Furthermore, 31 (70.5%) participants had individual supervision, one had group supervision and 12 (27.3%) reported supervision in both contexts. Regarding whether the agreed supervision time was adhered to, 14 (30.4%) participants answered yes, 28 (60.9%) no and four (8.7%) both. The time devoted to supervision per week was less than 15 minutes ($n = 7$), 15 - 30 minutes ($n = 11$), 31 - 45 minutes ($n = 8$), 46 - 60 minutes ($n = 3$) and over 60 minutes ($n = 16$). The perception of sufficient time for supervision was reported by 23 (50%) of the participants, while 23 (50%) stated that it was not insufficient. Factor analysis and Cronbach's alpha coefficients of the students' ($N = 46$) views on CS are presented in Table 2.

The most important factors from the MCSS regarding the need for more supervision were: Trust/Rapport, Supervisor advice and Finding time. The participants who wanted more supervision had significantly lower scores on the FESS factors: Supporting yet challenging relationship (p -value 0.004) and Preparatory and confirming professional relationship (p -value 0.002), Table 3.

3.2. Students' Perceptions of the Quality and Effectiveness of Clinical Supervision

To evaluate the quality and effectiveness of CS the instrument labelling and the sub-scales are described in Table 4. This structure explained 67.3% of the variance.

3.3. Spearman's Correlations between the Manchester Supervision Scale and Other Factors

A highly significant association was found between Trust and Interpersonal skills ($P = 0.001$), ($r = 0.50$) as well as between Reflection, Professional and Communication skills ($P = 0.001$), ($r = 0.50$).

Furthermore, associations were found between Supervisor advice and the factors Supportive yet challenging, Preparatory and confirming professional relationship, and Interpersonal, Professional and Communications skills ($P = 0.001$), ($r = 0.70$). There were no associations between Finding time and the factors: User involvement, Influence of supervision and the Effects of Supervision Scale, Table 5.

4. Discussion

The aim of this study was to evaluate nurse specialist students' views of CS and

Table 2. Factor loading, Cronbach's alpha coefficients (α) and explained variance of the students' (N = 46) views on clinical supervision (MCSS).

Items		Factor loading
Factor 1 Reflection	α 0.80	
Q 11 Reflection gives me time to "reflect"		0.86
Q 33 CS Improves the quality of care I give to my patients		0.82
Q 31 CS sessions motivate staff		0.75
Q 13 CS sessions facilitate reflective practice		0.67
Q 36 I think receiving clinical supervision improves the quality of care I give		0.66
Q 12 Work problems can be tackled constructively during CS sessions		0.61
Q 30 Without CS the quality of patient care would deteriorate		0.48
Factor 2 Finding time	α 0.74	
Q 22 My supervisor provides me with valuable advice		0.90
Q 20 I learn from my supervisor's experiences		0.81
Q 24 Sessions with my supervisor widen my clinical knowledge base		0.78
Q 27 My supervisor acts in a superior manner during our sessions		0.67
Q 23 My supervisor is very open with me		0.60
Q 26 My supervisor puts me off by asking about sensitive issues		0.57
Q 19 My supervisor is never available when needed		0.55
Factor 3 Importance	α 0.78	
Q 10 CS sessions are intrusive		0.87
Q 28 CS is for newly qualified/inexperienced staff only		0.77
Q 3 CS sessions do not solve anything		0.76
Q 7 I find supervision sessions time-consuming		0.66
Q 25 Supervision is unnecessary for experienced/established staff		0.57
Q 29 Clinical supervision makes me a better practitioner		0.54
Q 4 Time spent on CS takes me away from my real work in the clinical area		0.50
Q 6 Fitting in CS sessions can lead to more pressure at work		0.49
Factor 4 Trust/Rapport	α 0.83	
Q 6 Fitting in CS sessions can lead to more pressure at work		0.45
Q 2 It is difficult to find the time for CS sessions		0.89
Q 1 Other work pressures interfere with CS sessions		0.87
Factor 5 Supervisor advice	α 0.78	
Q 34 I can widen my skills base during my CS sessions		0.80
Q 35 My supervisor offers me guidance on patient care		0.67
Q 15 My supervisor offers an "unbiased" opinion		0.51
Q 32 I feel less stressed after seeing my supervisor		0.45

Continued

Factor 6 Personal issues	α 0.48	
Q 17 Having someone different to talk to about personal issues is a great help		0.68
Q 18 My CS sessions are an important part of my work routine		0.66
Q 21 It is important to make time for CS sessions		0.55
Q 9 CS does not solve personal issues		0.43
Q 5 I can 'unload' during my CS sessions		0.42

Factor 7 Improved care	α 0.80	
Q 16 I can discuss sensitive issues encountered during my clinical casework with my supervisor		0.65
Q 8 My supervisor gives me support and encouragement		0.62
Q 14 If there is something I don't understand there is always someone to ask		0.60

Explained variance (%), F1 = 72.9; F2 = 53.3; F3 = 52.3; F4 = 50.0; F5 = 50.0; F6 = 49.3; F7 = 48.3.

MCSS = Manchester Clinical Supervision Scale. Cronbach alpha total = 0.80.

its influence on their professional competence development. An additional aim was to interpret the results and link them to non-technical skills and Patient Safety (PS) topics. The research question was: What are the benefits of clinical supervision focusing on non-technical skills in the area of PS? Data were collected from 46 NSS using a package of instruments to measure the influence of CS.

CS factors that influenced the competencies of the NSS were: interpersonal, professional and communication skills, in addition to ethical skills, the importance of teamwork and awareness of the need to involve patients and their family members in safe care. **Table 6** illustrates the linkages between the results of CS, non-technical skills, patient safety competencies and patient safety topics.

Despite an average of 10 years' of experience as nurses the NSS expressed the need for more CS. The NSS context is entirely different and they have new roles and functions. Their increased responsibilities give rise to a sense of insecurity. The CS of these students has traditionally focused on technical skills using a hands-on approach. There is a need to pay more attention to non-technical skills development in order to safeguard patients. CS can serve as a forum for reflection where together with their supervisor. NSS are enabled to review situations, identify what succeeded or failed and what to do on the next occasion. It is through reflection that individuals grow as professionals and develop non-technical skills [1]. The supervisors should help by challenging the behaviour of NSS in order to promote communication and teamwork skills. According to McCabe [33], nurses communicate well with patients when they use a person-centred approach. However, the ability to do so is heavily influenced by the work and culture in the organization. Interest in non-technical skills has increased in healthcare in line with the focus on increased PS to reduce the number of ad-

Table 3. Factors, mean rank and p-value for nurses who wanted more supervision.

Factor	Supervision frequency	N	Mean Rank	P-value
Trust/Rapport	0 No	23	28.9	0.002
	1 Yes	22	16.7	
	Total	45		
Supervisor advice/support	0 No	23	29.5	0.001
	1 Yes	22	16.2	
	Total	45		
Improved care	0 No	22	23.6	0.776
	1 Yes	23	22.5	
	Total	45		
Importance/ Value of supervision	0 No	22	20.5	0.306
	1 Yes	22	24.4	
	Total	44		
Finding time	0 No	23	16.8	0.001
	1 Yes	23	30.1	
	Total	46		
Personal issues	0 No	22	22.1	0.850
	1 Yes	22	22.8	
	Total	44		
Reflection	0 No	23	24.9	0.296
	1 Yes	22	20.9	
	Total	45		
Influence supervision F1 Supportive yet challenging supervision	0 No	23	28.4	0.004
	1 Yes	22	17.3	
	Total	45		
Influence supervision F2 Preparatory and confirming professional relationship	0 No	23	28.9	0.002
	1 Yes	22	16.8	
	Total	45		
User involvement F1/Preserving integrity	0 No	23	23.5	0.790
	1 Yes	22	22.5	
	Total	45		
User involvement F2/ Protecting participation of patients and family members	0 No	23	24.5	0.422
	1 Yes	22	21.4	
	Total	45		
Interpersonal skills	0 No	23	26.8	0.900
	1 Yes	22	20.1	
	Total	45		
Professional skills	0 No	23	26.2	0.165
	1 Yes	23	20.8	
	Total	46		
Communication skills	0 No	23	24.9	0.475
	1 Yes	23	22.1	
	Total	46		

Table 4. Included factors, Medians, Quartiles and Cronbach's alpha.

Included factors	Medians	Quartiles (Q1, Q3)	Cronbach's alpha
MCSS Trust/Rapport (15 - 35)	29	(24.5, 32.1)	0.825
MCSS Supervisor advice/support (15 - 30)	25	(22.0, 28.0)	0.783
MCSS Improved care/skills (16 - 35)	28	(25.0, 31.0)	0.800
MCSS Importance/Value of CS (6 - 19)	9	(6.0, 10.8)	0.777
MCSS Finding time (4 - 20)	11	(8.0, 13.0)	0.737
MCSS Personal issues (3 - 14)	8.5	(7.0, 10.0)	0.475
MCSS Reflection (5 - 15)	12	(10.0, 14.0)	0.800
FESS Influence Supervision F1 (7 - 20)	15.0	(12.0, 17.0)	0.842
FESS Influence Supervision F2 (4 - 12)	9.0	(7.0, 11.0)	0.637
FESS User involvement F1 (4 - 16)	14	(12.0, 16.0)	0.878
FESS User involvement F2 (3 - 12)	11	(9.0, 12.0)	0.775
ESS Interpersonal skills F1 (14 - 44)	35.5	(31.0, 39.3)	0.899
ESS Professional skills F2 (15 - 44)	33	(30.0, 37.0)	0.875
ESS Communication skills F3 (3 - 12)	10	(8.0, 11.0)	0.828

Table 5. Spearman's correlations between the MCSS and other factors.

MCSS	Trust/Rapport	Supervisor advice	Improved care	Importance	Finding time	Personal issues	Reflection
<i>FESS</i>							
<i>User involvement</i>							
Preserving integrity	0.373*	0.459**	0.285	-0.208	-0.004	0.066	0.313*
Protecting participation of patients and family members	0.349*	0.302*	0.211	-0.315*	-0.085	-0.070	0.253
<i>Influence of supervision</i>							
Supportive yet challenging relationship	0.761***	0.765***	0.250	-0.067	-0.173	0.205	0.145
Preparatory and confirming professional relationship	0.596***	0.549***	0.024	0.019	-0.311*	0.116	-0.034
<i>ESS</i>							
Interpersonal skills	0.503***	0.561***	0.353*	-0.073	-0.190	0.401**	0.373*
Professional skills	0.431**	0.519***	0.375*	-0.070	-0.150	0.405**	0.500***
Communication skills	0.249	0.403**	0.439**	-0.152	-0.098	0.457**	0.572***

*P \Rightarrow 0.05; **P \Leftarrow 0.01; ***P \Leftarrow 0.001.

Table 6. The benefits of CS, non-technical skills, patient safety competencies and patient safety topics.

The benefits of CS	Non-technical skills and patient safety competencies ^{1,2}	Patient Safety topics ³
Interpersonal skills	Trustful relationships	Safety Culture
Professional skills	Self- management, situation awareness and decision making	Safety Culture
User involvement and ethical skills	Patient-centred care and responsibility	To bring the patients' voices and experiences into the patient safety agenda.
Communication skills, reflection	Cognitive skills	Availability and transfer of appropriate knowledge.
Teamwork	Communication, teamwork and collaboration	Safety Culture

1) Flin *et al.* [21]; 2) Rasmussen *et al.* [22]; 3) Jha *et al.* [15].

verse events [21]. De Vries *et al.* [19] found that 41% of all adverse events in hospitals occurred in the operating theatre. Furthermore, the authors linked these events to the failure of team cooperation [34]. According to Mc Culluch [35], reasons for the high rate of adverse events in the operating theatre are that the environment is perceived as stressful by staff and communication between team/staff members is difficult. Non-technical skills training resulted in improved attitudes to safety [35]. Professional skills on the part of NSS can be interpreted as linkages to their capacity for self-management, situational awareness and decision-making. According to Flin *et al.* [21], situational awareness can be explained simply as “knowing what is going around you”. The terms situational awareness and situation assessment are often used synonymously. Flin *et al.* [21] defined situational awareness as the cognitive process for building and maintaining awareness of a workplace situation or event. The authors also described situational awareness as the first stage of decision-making, defined as the process of reaching a judgement or choosing an option, sometimes called a course of action, to meet the needs of a given situation. Elements of situational awareness can be situation assessment i.e., defining the problem, generating and considering one or more response options, selecting and implementing an option and reviewing the outcome [21]. All aspects can be seen as referring to care models such as patient-centred care and safety culture.

Despite the fact that the result of the present study revealed the importance and positive outcomes of CS for the development of PS competencies, there is still a room for improvement. The participants reported differences in the frequency of CS. Over half of the NSS stated that they were not offered enough time for CS. The participants who wanted more supervision had significantly lower scores on the factors; Supporting yet challenging and Preparatory ($P = 0.004$), confirming professional relationship ($P = 0.002$). These findings are confirmed by the study of Amsrud *et al.* [28] and their evaluation of undergraduate nursing students. Nursing universities are responsible for NSS programmes. In order to provide clinical supervisors with improved understanding and CS skills, the universities should devote more effort to “designing and providing” educational programmes for clinical supervisors. The supervisors must be made more

aware of the actual importance of their supervision, particularly in terms of the development of non-technical skills. CS must be given priority in the organisation as it increases the focus on PS and safety culture. This is supported by Gordon *et al.* [36] who concluded that education in the use of non-technical skills can improve PS. There can be various reasons for the lack of time for CS. Clinical supervisors are usually not relieved from ordinary patient work. Finding time for CS and reflection should therefore be given high priority by management and clinical leadership. Johns [37] claims that clinical leadership is a cornerstone for the development of nursing and healthcare practice. The clinical leader is responsible for facilitating development, supporting/promoting staff competence, clinical practice and ensuring the quality of care.

Limitations of the Study

This study has some limitations. Data collection only took place on one occasion by means of the questionnaire and the sample of students was relatively small. The latter was unavoidable as the sample comprised almost all students in the class. For future research we recommend the inclusion of a larger group. The results are only valid for the study group. It would be of interest to compare different groups of students at postgraduate educational level such as master level. A mixed method design combining interviews and a questionnaire with open ended questions would be ideal for focusing on PS issues [24].

5. Conclusion

CS is crucial for development of non-technical skills and patient safety competencies among NSS. However, finding the time to reflect and learn from the supervisors was reported to be problematic. Thus, there is potential for quality improvement. We recommend that nursing universities should provide formal educational programmes for supervisors focusing on the students' professional development, especially non-technical skills. Management and clinical leaders should give higher priority to CS in order to enhance PS.

Contributions

The study was designed by E.S. and A.L. coordinated the research. E.R. and A.L.J. performed the data collection. E.R. and A.L.J. contributed to the study conception and literature search, supported by the specialized librarian at the university college. All authors in the research team participated in the data analysis. A.L. and E.S. were responsible for drafting the manuscript. All authors contributed to the intellectual content of the paper. The study was supervised by E.S. and A.L.

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Creation of a Training Course Program for Cancer-Patient Group Facilitators and Its Effects

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Abstract

Background: The purpose of this study was to clarify the effects of a facilitator training course focused on teaching beginners facilitator intervention skills. **Intervention Method:** One-and-a-half-day program combining education, role plays and relaxation. **Methods:** Participants were 11 participants, and of these 8 gave valid responses to our questionnaire. The scores of the participants on a facilitator intervention skills scale and on a scale of facilitator skills to cope with difficult situations were compared before and after the course, using SPSS16 for windows. In addition, the participants' impressions before and after the course were analyzed qualitatively and inductively. **Results:** Seven of the 16 items on the facilitator intervention skills scale and 7 of the 12 items on the facilitator skills to cope with difficult situations improved the participants after the facilitator training. All participants indicated that they could understand the lectures. Their impressions changed from anxiety and enthusiasm to pleasure of learning and discovery of specific problems. **Conclusion:** The results suggested that the educational method created in this study, with emphasis on role-playing, is useful.

Keywords

Facilitator, Group Therapy, Training, Cancer

1. Introduction

In recent years, increasing interest has been paid, both in Japan and overseas, to the psychosocial burden of cancer patients. Studies have been conducted to investigate the effectiveness of psychosocial interventions for reducing the psychological burden of cancer patients and improving their quality of life (QOL) [1]-[7]. Group therapy, which was developed in the West as one of the psy-

psychosocial interventions for improving the QOL of cancer patients [6], is a program consisting of education on stress-coping methods and problem-solving methods, group discussions and progressive muscle relaxation (PMR). The program was modified for the Japanese [4] and its effects were investigated in Japan [1] [2] [6].

Psychosocial group interventions for cancer patients will certainly be further disseminated in the future, but for this to happen, it is first necessary to create a therapeutic environment for providing group interventions. However, at present, there is a lack of human resources with the ability to act as facilitators (having the role of smoothly and effectively leading group discussions in group interventions). Facilitators provide interventions while facing difficulties in dealing with participants having problems, anxiety due to a lack of knowledge, and difficulty overcoming the fear of interventions, etc. [8]. Under these circumstances, the facilitator training course program in Japan consists of lectures and role-playing exercises. But the role-playing exercises in the program last for only about 3 and a half hours, and moreover, the program does not focus on facilitator intervention skills [8]. Although the level of understanding of lectures and level of anxiety have been reported [8] [9], there have been no systematic reports on facilitators' intervention methods. Therefore, it has been difficult to teach the details of facilitators' intervention methods, and Morita *et al.* [8] reported that there were a small number of items that reduced anxiety.

Based on the above background, the purpose of this study was to clarify the effects of a facilitator training course focused on teaching beginners facilitator intervention skills.

This study is expected to serve as a foundation for finding the direction of facilitator education and for the dissemination of group interventions by clarifying the effects of the facilitator training course focused on facilitator intervention skills in group interventions for cancer patients.

2. Methods

2.1. Recruitment of the Study Participants

Posters and leaflets were distributed at the nursing departments in 29 hospitals near a university and within a university to recruit those who wished to participate in the study. In all, 11 persons applied for participation.

2.2. Creation of a Facilitator Training Program

Practice of the educational program of the I Can Cope Program [10] and group therapy for cancer patients: We participated in a workshop on activities in the US (lecture by Catherine Classen on October 11, 2003) [11] and a training course for cancer patient group facilitators in the "I Can Cope Program" in Hiroshima. A one-and-a-half-day program was then designed and implemented by reference to this workshop and training course, aimed at conferring on the participants the ability to facilitate a program known to be effective in patients with recurrent breast cancer on a medium-term basis.

Improvements in the program were made to incorporate easy-to-use skills. (Table 1) The explanation provided by the facilitators in the preliminary program was changed so that it could be clearly understood, and exercises of the relaxation method implemented by facilitators in the group therapy were also added, so that the participants would be able to use them immediately [11] [12] [13]. In addition, the number of role-playing sessions based on facilitators' difficult-situation scenarios was increased to 5 (two role-playing and two discussion sessions for each scenario), so that an increase in group experience would allow the participants to understand the patients and the facilitators. Furthermore, when role-playing did not work well and remedial measures could not be found in discussions, the lecturers gave them hints for discussion or showed them an example of the facilitation method.

2.3. Evaluation Methods

The effects of the program were evaluated along the curriculum as follows.

1) Level of understanding of the lectures

The level of understanding was assessed for each item on a 4-point Likert scale.

2) Changes in attitudes as facilitators

1) Facilitator intervention skills

The scale that we created consisted of 12 items selected using a qualitative study method from the facilitator techniques used in group therapy for cancer patients. Each item was assessed on a 4-point Likert scale, with scores ranging from 0 to 3: e.g., "I have high anxiety" to "I have no anxiety". A scale of facilitation

Table 1. Program.

		Min.
First day	Guidance	10
	Lecture Purpose and effects of group therapy for cancer patients	60
	Lecture Facilitators' role and skills Partnership in the group	30
	Lecture Communication methods	15
	Lecture Change of participants in the group	15
	Lecture How to role-playing	10
	Practice Role-playing sessions based on facilitators' difficult-situation scenarios	70
	Practice Role-playing sessions based on facilitators' difficult-situation scenarios	85
Second day	Practice Role-playing sessions based on facilitators' difficult-situation scenarios	85
	Practice Role-playing sessions based on facilitators' difficult-situation scenarios	85
	Practice Role-playing sessions based on facilitators' difficult-situation scenarios	85
	Lecture The relaxation method	20
	Practice Exercises of the relaxation method	40
	Lecture How to conduct group therapy	20

tor skills to cope with difficult situations consisting of 12 items of difficult situations was also created by reference to representative difficult cases reported by Morita *et al.*, and the level of anxiety was assessed on a 4-point Likert scale with scores ranging from 0 to 3:e.g., “I have high anxiety” to “I have no anxiety”.

2) Impressions of the group facilitator training course

The participants were encouraged to freely describe their impressions of role-playing exercises, what was good or bad, future problems, etc.

2.4. Ethical Considerations

This study was conducted with the approval of the Ethics Committee of the School of Health Sciences, Faculty of Medicine, Tottori University. Researchers explained the purpose of the study verbally and in writing to the participants.

2.5. Analysis Methods

1) Changes in attitudes as facilitators

Scores on each scale before and after the training course were statistically compared by the Wilcoxon test using SPSS16 for windows. The level of significance was set at $p < 0.05$.

2) Impressions

I read free descriptions on days 1 and 2 of the training course again and again, classified the descriptions into categories according to their meaning, gave them category names and counted the number of descriptions for each category.

3. Results

3.1. Characteristics of the Participants

Attributes of the participants

There were 11 participants, and of these, the responses of 8 were investigated. The remaining three participants were excluded because they failed to attend the entire one-and-a-half-day training course. Participants in their 20s ($n = 3$) and 30s ($n = 3$) were the most common. Nursing practice was the most common occupation ($n = 4$), followed by nursing students ($n = 3$). Two participants had previous experience of participating in support groups and 3 had experience of participating in patient groups, but none had previously attended a facilitator training course (Table 2).

3.2. Understanding of Lectures

All 8 participants answered that they understood all the lectures (purpose and effects of group therapy for cancer patients, significance of group experience for cancer patients, communication methods, roles and techniques of facilitators, relaxation method, and how to conduct group therapy) (Table 3).

3.3. Comparison before and after the Group Facilitator Training Course

1) Facilitation ability

Table 2. Subject background.

		n
Age	20s	3
	30s	3
	40s	1
	50s	1
Job category	Nurse	4
	Graduate student	1
	University student	3
School register	Vocational school	1
	Junior college	2
	University	4
	Graduate school	1
Previous experience of participating in support groups	Yes	2
	No	6
Experience of participating in patient groups	Yes	3
	No	5
	Yes	0
	No	8

Table 3. Understanding of lectures.

	Yes	No
Purpose and effects of group therapy for cancer patients	8	0
Meaning of group experience for cancer patients	8	0
Communication methods	8	0
Roles and techniques of facilitators	8	0
Relaxation method	8	0
How to conduct group therapy	8	0

Analysis of the participants' facilitation ability before and after the training course revealed that the score on the facilitator intervention skills scale (total score) and that on the facilitator skills to cope with anxious situations (total score) significantly improved after the training ($p < 0.05$) (Table 4).

In addition, the individual scores for the following items concerning facilitator intervention skills improved significantly: "consider time and distribution of speaking time among individuals", "express participants' feelings in place of them", "encourage participants to reflect on themselves", "show oneself as standing face to face with participants", "participants want to interact with other participants", "participants play the role of facilitator in place of the facilitator", and "the facilitator and sub-facilitator cooperate with each other". Furthermore, the individual scores on the following question items concerning facilitators' ability to cope with difficult situations also improved significantly: "when some participants do not speak at all", "when silence lasts long", "when some participants express dissatisfaction with how to proceed with the group", "when participants often grumble and complain about medical staff", "when participants develop recurrence or metastasis (disease progression)", and "when there is a

Table 4. The participants' facilitation ability before and after the training course.

		Before Mean \pm SD	After Mean \pm SD
Total	The facilitator intervention skill (16 items)	18.25 \pm 7.85	26.62 \pm 0.53*
1	Consider time and distribution of speaking time among individuals	1.25 \pm 0.46	1.50 \pm 0.74
2	When the discussion deviates from the theme, return the discussion to the theme of the day	1.12 \pm 0.64	1.37 \pm 0.88
3	Accept participants' feelings and give them correct knowledge	1.12 \pm 0.83	1.25 \pm 0.53
4	Sympathize participants' feelings in place of them	1.25 \pm 0.70	1.50 \pm 0.51
5	Express participants' feelings in place of them	0.87 \pm 0.99	1.37 \pm 0.92*
6	Able to play the role of (sub-)facilitator	0.37 \pm 0.51	1.00 \pm 0.74
7	Encourage participants to reflect on themselves	0.62 \pm 0.74	1.37 \pm 0.75*
8	Protect participants mental and physical condition	1.37 \pm 0.51	2.00 \pm 0.51
9	Strengthen mutual support among participants	0.87 \pm 0.83	1.62 \pm 0.51
10	Show oneself as standing face to face with participants	0.87 \pm 0.83	1.62 \pm 0.74*
11	Presence with participants to accept their feelings	1.50 \pm 0.53	2.00 \pm 0.75
12	Participants do not want to know other participants' experiences	1.50 \pm 0.92	1.75 \pm 0.88
13	Participants want to interact with other participants	1.37 \pm 0.74	2.37 \pm 0.74*
14	Participants play the role of facilitator in place of the facilitator	1.00 \pm 0.75	2.00 \pm 0.75*
15	There is humor in discussion	1.37 \pm 0.74	1.62 \pm 0.51
16	The facilitator and sub-facilitator cooperate with each other	1.75 \pm 0.70	2.25 \pm 0.88*
Total	The facilitator skills to cope with anxious situation (12 items)	10.62 \pm 6.27	17.62 \pm 6.52*
1	When some participants talk very long	0.75 \pm 0.88	1.62 \pm 0.74
2	When some participants do not speak at all	0.75 \pm 0.70	1.62 \pm 0.51*
3	When some participants express strong feelings	0.75 \pm 0.70	1.12 \pm 0.83
4	When silence lasts long	0.87 \pm 0.64	1.87 \pm 0.64*
5	When some participants express dissatisfaction with how to proceed with the group	0.62 \pm 0.74	1.37 \pm 0.74*
6	When participants often grumble and complain about medical staff	1.12 \pm 0.35	1.75 \pm 0.46*
7	When participants develop recurrence or metastasis (disease progression)	0.50 \pm 0.53	1.12 \pm 0.83*
8	When there is a conflict or difference of opinions among participants	0.75 \pm 0.70	1.75 \pm 0.46*
9	When participants talk about the fear of death	1.37 \pm 0.74	1.37 \pm 0.74
10	When participants ask about disease or the most up-to-date treatment	1.37 \pm 0.74	1.37 \pm 0.74
11	When the discussion does not go deep	1.00 \pm 0.53	1.37 \pm 0.51
12	When many participants are absent	0.75 \pm 0.70	1.25 \pm 1.03

*p < 0.05.

conflict or difference of opinions among participants”.

2) Changes in free descriptions

Based on analysis of the free descriptions, the participants' descriptions on day 1 were categorized as follows: “anxiety about facilitator communication”, “acquisition of role-play learning skills”, “understanding of the advantages of role-play learning”, “learning from the lecturer's demonstration of facilitation,” and

“others”. The participants’ descriptions on day 2 were categorized as follows: “repeated role-playing increases learning”, “discovery of specific facilitator strategies”, “discovery of problems towards the implementation of facilitation”, “use in clinical nursing, etc.”, and “others” (Table 5).

4. Discussion

4.1. Small Number of Participants

The schedule and other information about this course were disseminated to 29 hospitals, inviting attendance, but the actual number of attendees was only 11. This is probably attributable to the long duration of the course (lecture for one and a half days) and the different design of the course (role-playing on many scenes). Of the 11 participants, 3 were able to attend the course only on one of the two days. Therefore, the number of the study subject was only 8. A high percentage of the participants were unwilling to participate in the role-playing, and it would appear that people tend to avoid participating in training courses that involve much role-playing.

Table 5. Changes in the free descriptions.

Category	Number of descriptions	Example of a description
Day 1 Anxiety about facilitator communication	9	I worried about evaluation by others and appearance and I thought I had to do it well, which made me passive at first. I tried to do it without the fear of failure, and I learned a lot.
Day 1 Understanding of the procedures of role-play learning	7	I was able to have a satisfying time. It was good that I could actually watch and learn how the lecturer brought up a subject in the role playing at the end of the course.
Day 1 Understanding of the advantages of role-play learning	10	The situation and casting were real, and I was able to think as if I was actually facing difficulties.
Day 1 Learning from lecturer’s demonstration of facilitation	3	I was able to have a satisfying time. It was good that I could actually watch and learn how the lecturer Chujo brought up a subject in the role playing at the end of the course.
Day 1 Others	4	I felt that both the lectures and role playing were beneficial for obtaining a deeper understanding of facilitator intervention skills.
Day 2 Repeated role-playing increases learning	3	We were able to have active discussions in the group on day 2, and this was good for me because I could feel that I learned spontaneously. In addition, I could ask the lecturer about what I did not understand and coping methods, and repeated role-plays of the same situation led me to think.
Day 2 Discovery of specific facilitator strategies	11	It is important how to let participants know the theme and how to create an atmosphere. It is necessary for facilitators to understand the theme and purpose of the session, and cooperation of the facilitator and sub-facilitator is required. It is important to stay with the patients and think with them.
Day 2 Discovery of problems towards the implementation of facilitation	7	Through the facilitator experience, I found future problems such as whether I would successfully stay with the patient from the patient’s point of view, eye movements, how to speak and the tone of voice.
Day 2 Use in clinical nursing, etc.	2	I would like to utilize what I learnt in the group work for two days in my daily nursing practice.
Day 2 Others	4	I became sleepy during the last lecture, because we practiced relaxation before the last lecture. It would have been better to perform the relaxation exercise after the lecture.

4.2. Extent of Understanding of the Lectures

There have been many reports on the need for lectures on the objectives and significance of group therapy, and the contents of the lectures in this study also covered these items. In the past, explanation about intervention focused on cases where intervention was difficult [9] [10]. The present study was unique in that more concrete explanations about the skills of intervention were included in the lectures. When the participants were asked to provide their assessment of the quality of the lectures, all of them answered that they had understood all the topics covered by the lectures, including the lecture on our new attempts. This result is consistent with the results of previously reported studies 8, 9. In regard to the particularly favorable responses in regard to the clarity of the lectures in this study, we could say that this might be attributable to: 1) the small number of participants, which encouraged the participants to ask questions; and 2) the delivery of the lectures while the responses of individual participants were monitored.

4.3. Effects on Improvement of the Facilitator Capabilities

Significant improvement was seen not only in the total score on anxiety when facing difficult scenes by facilitators, but also in the scores on various other items of the scales used. This outcome was similar to that reported by Morita [8]. This probably indicates that role-playing under the scenario of difficult scenes allowed the participants to devise strategies to deal with the difficulties that they faced. In the present study, questions were also asked about the facilitator's intervention skills, and significant improvement of the facilitators' skills was noted after the training course. This finding suggests that prior concrete explanation about the skills of facilitators enabled the participants to actively utilize such skills during role-playing, resulting in improvement of their skills.

4.4. Benefits of Practicing Role-Playing Multiple Times

To the free-answer question asked on the first day, many participants described "anxiety about facilitator communication". Although the participants initially have expressed difficulty in role-playing, repeated role-playing has the advantage of allowing the participants to learn, through comparison, the availability of various ways of dealing with difficulties and the presence of various rationales on the bases of which to choose the appropriate method of handling [14], and it also allows the participants to accumulate experience in dealing with practical scenes. Furthermore, participants can deepen their engagement in role-playing and learning as the frequency of role-playing increases. At the same time, participants can also learn various ways of dealing with difficulties through holding discussions with other participants on the basis of their experience with role-playing. There was a participant who compared what she learned from role-playing with her own past experience of nursing, and found common features between them, pointing out the possibility of "utilization in clinical nursing, etc." This participant seems to have reached the stage where the knowledge/skill

learned from this kind of training course could also be utilized during her practical nursing duties.

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Continuity of Care during Care Transition: Nurses' Experiences and Challenges

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Abstract

The aim of this study was to gain increased knowledge about nurses' experiences of care transition of older patients from hospital to municipal health care, based on two research questions: How is nurses' experience continuity during care transition of older patients from hospital to municipal health care? How would nurses describe an optimal care transition? Nurses have a pivotal role during care transitions of older patients. More knowledge about their experiences is necessary to develop favorable improvements for this important period in the older patient's treatment and care. The study has a qualitative explorative design with follow-up focus group interviews. Nurses (N = 30) working in hospital (n = 16) and municipal (n = 14) health care were organized in five mixed focus groups during the period October-January 2014/2015. The focus groups met twice, answering the research questions following a previously circulated semi-structured interview guide. The interview analysis was inspired by content analysis. The analysis resulted in the themes "Administrative demands challenge terms for collaboration" and "Essentials for nursing determine optimal care transitions for older patients". Administrative demands may prevent nurses' professional dialogue and collaboration across health care levels. Older patients' best interests should be ensured through a collaborative relationship between hospital and municipal nurses, to form continuous care across health care levels. Clinical practice should be aware of essentials for nursing, which could influence and facilitate a more individualized and continuous transition for older patients.

Keywords

Care Transition, Municipal Health Care, Hospital Care, Continuity of Care, Focus Groups

1. Introduction

A successful care transition from hospital to municipal health care is understood as the coordination of multiple factors to ensure continuity of the patient's treatment and care [1]. Due to a fragmented health care system in western countries, several health care levels, with different areas of competence and financial systems, together provide for the older patients [2]. As such, improvement of care transitions has been a stated goal both politically and within health care research [3]. Comparable to many other countries, Norwegian authorities have implemented the Coordination Reform [4]. By using incentives to skew treatment and care to municipal level, responsibilities and demands for nurses involved in care transitions of older patients are consequently altered [5]. Both hospital and municipal nurses play a key role during this important period of treatment and care, and they also have first hand contact with the older patients and their next of kin [6] [7].

Background

Norway has organized health care services in a New Public Management model, with the intention of making health care more efficient [8]. In this model the patient requests health care services from municipal health care through a purchaser-provider model. Municipalities organized in such a manner have separated nursing care from making decisions about the level of health care service the older patient are assigned [8].

Continuity of care can be understood as the extent that the patient perceives health care as coherent, connected and consisted with their needs [9]. Continuity of care includes three concepts: continuity of information, continuity of relation between patient and provider, as well as continuity of management—which is particularly important with complex chronic illness [9]. Adding to the conceptual descriptions, Hellesø & Lorensen [10] suggest inter-organizational continuity of care, which addresses individual and organizational perspectives of continuity of care across health care levels.

In previous research, municipal nurses experience different professional challenges compared to hospital nurses [11]. Furthermore, municipal nurses experience low quality of discharge communication to be a major threat to patient safety [12]. As in other countries, and regulated by law, routines for discharging and receiving patients across health care levels are framed by cooperation agreements between hospital regions and associated municipalities [13]. Nevertheless, hospital nurses planning long-term care for the older patient often described it to be stressful when different stakeholders hold different values [14]. Obstacles such as patients' immediate needs and their limited preconditions to participate are found to explain nurses' low adherence to discharge routines [15]. In addition, multiple barriers are found to complicate nurses' continuity of information across health care levels (Olsen *et al.* 2013). Handover documents are often found incomplete regarding both medical and person-centered information about the patient [16] [17]. Electronic documentation systems are ex-

pected to accommodate some of the instrumental challenges of information exchange [18]. However, within nursing practice, the synergism of collaboration is described as a core element [19] [20] [21]. Nevertheless, differences of perspectives, organizational structures and cultures might be important obstacles for collaboration across health care levels [21]. As such, improved communication and understanding of the opposite health care level could possibly contribute to increased collaboration between nurses during care transition [11].

Based on these considerations, we need more knowledge about both hospital and municipal nurses' collaborations to ensure favorable working conditions and continuity of care for older patients across health care levels. The aim of this study was to gain increased knowledge about nurses' experiences of care transitions of older patients from hospital to municipal health care, based on two research questions: how do nurses experience continuity during the care transition of older patients from hospital to municipal health care? How would nurses' describe an optimal care transition?

2. Methodology

2.1. Study Design

An explorative qualitative design with focus group interviews was chosen because care transition involves nurses from hospital and municipal health care with different perspectives and experiences. Focus group interviews are a common method within health care research, and are particularly productive given their multiple benefits within pedagogy, politics and research [22]. It was anticipated that through discussion among participants representing similar and dissimilar health care levels, new knowledge could emerge to illuminate the aim of the study. In addition, exchange of perspectives and experiences could contribute to valuable insight for our participants. Due to the scope of the study, the focus groups were gathered in two meetings (**Figure 1**). According to Malterud [23], arranging multiple meetings of focus groups is an option to initiate a reflective process in the participants that can be elaborated and clarified. As such, the first research question was addressed in the first focus group meeting, while the second research question was addressed in the second focus group meeting (**Figure 1**). In addition, based on the second research question, the participants were given quotations from a previous study exploring the experiences of patients aged 80 years or older during care transition [7]. The quotations highlighted topics concerning experiences of participation and continuity in terms of communication and responsibility during care transition [7], and were intended to be evocative, contributing to the participants' opportunity for reflective preparation prior to the second focus group meeting.

2.2. Participants

As nurses often busily work schedules, and as the intention was to bring nurses from different health care levels together in the same focus groups, a convenient sample of nurses was recruited to the study, because they were available with re-

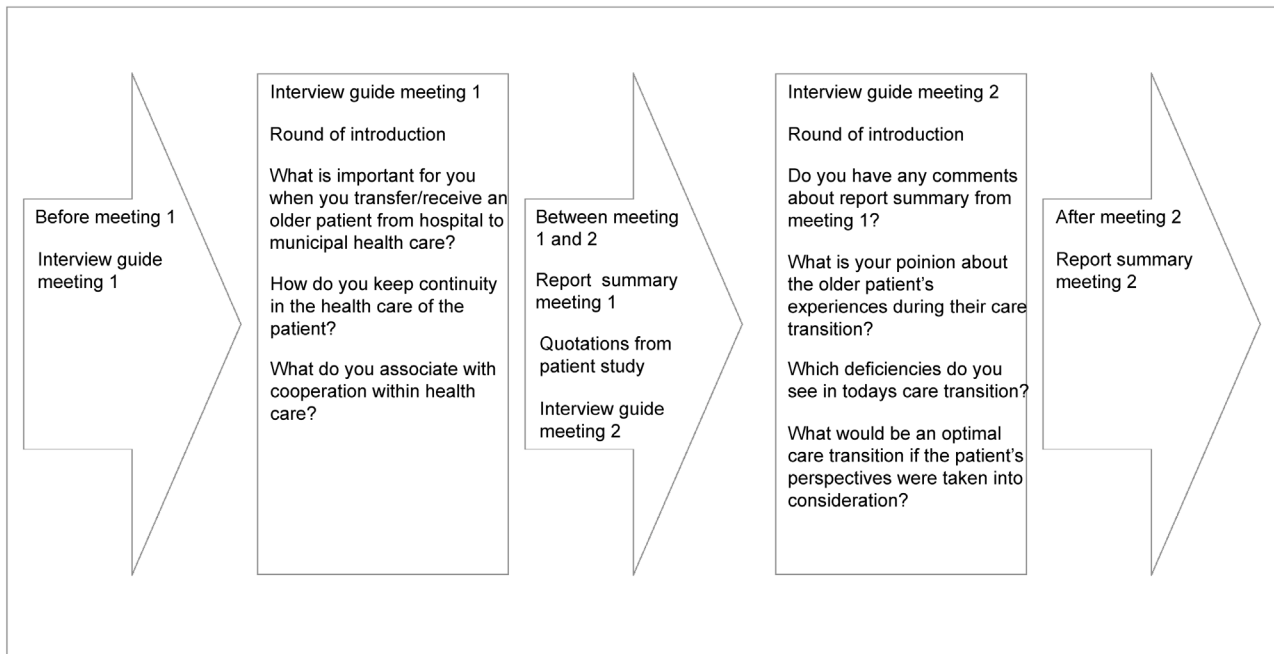


Figure 1. Schematic overview of focus group interviews, interview guides and participant confirmation, all documents sent participants by email.

gard to access, location, time and willingness. Nurses attending a postgraduate education at a local University College and nurses at a local hospital were informed about the study orally and in writing by the first author or by a Professional Development nurse staff at the hospital ward. Sample size was based on the focus group interviews information power as described by Malterud *et al.* [24] which indicates that the aim, sample specificity, theory, quality of dialogue and analysis strategy must be considered. The participants were divided into five focus groups, A-E, attempting equal distribution of nurses representing hospital and municipal health care in each focus group. Participants were contacted by email with the time and place of their first meeting. All participants were offered free lunch. A total of 30 nurses, 28 female and 2 male, participated in the study. All participants were attending a postgraduate education during the period of the focus group interviews. In addition, most of the participants had prior experiences as RN from other health care locations than the present. Background information is described in **Table 1**. From hospital care there were 16 nurses, representing 5 different hospitals, both larger university hospitals and smaller local hospitals nationwide. Municipal health care was represented by 14 nurses, from 9 different municipalities nationwide. The municipalities were of different sizes measured by number of citizens, and both towns and smaller villages were represented.

2.3. Data Collection

The focus group interviews were performed October/January, 2014/2015. All interviews were conducted at the University College of the participants' postgraduate education, during their lunch break or in the afternoon. The focus group

Table 1. Participants' (N = 30 RN) background information.

Focus group	Background information				
	Gender	Age (years)	Employment	Experience as RN (years)	Participation in focus group 1 and 2
A	Female	28	Municipal health care	a	1 and 2
	Female	29	Hospital	4	1 and 2
	Female	31	Municipal health care	3	1 and 2
	Female	28	Hospital	3	1 and 2
	Female	35	Municipal health care	10	1 and 2
B	Male	29	Hospital	a	1 and 2
	Female	23	Hospital	0,5	1 and 2
	Female	34	Municipal health care	11	1 and 2
	Female	26	Hospital	3	1 and 2
	Female	42	Hospital	9	1 and 2
	Female	27	Hospital	4	1 and 2
	Female	33	Municipal health care	11	1 and 2
	Female	29	Municipal health care	3	1 and 2
	Female	25	Hospital	2	1 and 2
	C	Female	50	Municipal health care	24
Female		44	Municipal health care	25	1
Female		25	Hospital	1	1 and 2
Female		48	Hospital	21	1 and 2
Female		36	Municipal health care	6	1 and 2
Female		25	Hospital	0,5	1 and 2
Female		34	Hospital	12	2
D	Female	25	Hospital	1	1 and 2
	Female	23	Hospital	1,5	1 and 2
	Female	46	Municipal health care	10	1 and 2
	Female	50	Municipal health care	26	1 and 2
E	Female	52	Municipal health care	10	1 and 2
	Female	53	Hospital	29	1
	Female	26	Hospital	1,5	1 and 2
	Male	43	Municipal health care	16	1
	Female	a	Hospital	a	1

a. Unknown; b. Was prevented from participating in 2. Meeting, sent answers to interview guide in writing.

interviews were carried out with one trained moderator and observer. The moderator led the focus group interview following a pre-tested interview guide covering the main topics. The interview questions are presented in **Figure 1**. The interview guide gave opportunity to follow issues that surface during the focus

group interviews. In the beginning of each focus group interview it was emphasized that all participants were given time to describe their experiences. The observer took notes and asked additional follow-up questions if necessary. The focus group interviews lasted from 45 m until 1 h 31 m, with a mean duration of 1 h 4 m. After each focus group interview the moderator and observer discussed the dialogues and group dynamics. Finally, the moderator wrote a report summary from the focus group interview, which was approved by the observer before being sent to participants for validation.

2.4. Ethical Considerations

All participants had to sign a written consent prior to the focus group interview. They were assured of full confidentiality and could withdraw from the study at any time. The Norwegian Social Science Data Service and The Regional Committees for Medical and Health Research Ethics (Project number 2010/3342) have approved the study.

2.5. Analysis and Interpretation

Data from focus group meeting 1 (A1-E1) and data from focus group meeting 2 (A2-E2) were analysed separately as they address different topics of the aim of the study. Based on Graneheim and Lundman's [25] approach to content analysis the study was aiming for interpretation of its latent content;

1. The focus group interviews were transcribed verbatim and read carefully several times to get a sense of their whole.
2. Meaning units were identified in the text.
3. The meaning units were condensed to shorten the text without reducing its content.
4. Condensed meaning units were coded in accordance with their content.
5. The codes were compared based on their differences and similarities and sorted in sub-categories and thereafter grouped in categories.
6. Categories were abstracted in two themes.

3. Results

The analysis resulted in two main themes and four categories. In the following, the results will be organized in categories and clarified in selected quotations to illuminate the analysis and bring forward the voice of the participants.

3.1. Administrative Demands Challenge Terms of Collaboration

Analysis of data from meeting 1 (A1-E1) resulted in the theme "Administrative demands challenge terms of collaboration", interpreted from two categories; "Care transition rests on extensive routines" and "Professional collaboration is prevented by external conditions" (Table 2).

3.1.1. Care Transition Rests on Extensive Routines

Hospital nurses discussed care transition as stressful when many factors were

Table 2. Theme, categories and sub-categories of “Administrative demands challenge terms for collaboration”.

Theme	Administrative demands challenge terms for collaboration			
categories	Care transition rests on extensive routines		Professional collaboration is prevented by external conditions	
sub-categories	Hospital nurses perform extensive preparations prior to care transition	The preliminary municipal care rests on hospital preparations	Misses the opportunity for professional dialogue by phone	Case manager experienced as intermediaries

considered during the final hours. Detailed agreements between hospital and municipal health care were followed, and the older patient’s needs had to be taken into consideration, all within a limited period of time. Municipal nurses explained that they depended on preparations by hospital nurses. They often struggled with problems not always foreseen by hospital nurses, for example providing medications during weekends. The focus groups gave the opportunity to discuss the range of hospital care:

B1:

- (Hospital nurse) Usually, we end our care initiatives when the patient is discharged. And then you have the nursing summary for further follow up of the patient. But of course, I have special education in wounds, so sometimes I have sent along procedures from the Nursing Plan...or at least tried to...
- (Municipal nurse) It is very good with that kind of... you know, if not we just receive a patient with a wound, and it is sometimes frustrating when you receive a wound grade two or three you know, and there is no information about it
- (ECR) So what do you do then?
- (Municipal nurse) Well, we have to make a procedure ourselves. And we have a lot of qualified personnel on wound care (...) so we are fortunate. But what might happen is that it is overlooked, and if they come home during the weekend and there are a lot of nursing assistants, there might not be a nurse with the patient at that point and the patient is laying with a wound where the bandage should have been changed two days ago and they might develop....

3.1.2. Professional Collaboration Is Prevented by External Conditions

The participants unanimously missed using the telephone to talk to the nurse on the opposite health care level. Passing on information electronically was positive, improving the older patients’ safety during care transition. Professional collaboration was understood to offer training if needed in the municipalities, often by inviting municipal nurses in to the hospital, which was easily done by telephone. In addition, verbal dialogue was sometimes necessary to make sure all concerns were understood and to exchange information that fell out of the electronic documentation system.

C1:

- (Hospital nurse) (...) Sometimes we make a phone call to homecare if it is something very... or they are sick and there are things that they should pay extra attention to. And often this is due to next of kin feeling unsafe, that they find it scary and frightening or they feeling insecure, they don't feel safe and need additional information and that... well, that is the kind of thing that we discuss by phone instead of document in the sense of, for example, that the next of kin have said that they are not happy about the patient going home, for example.

In those care transitions where it was seen necessary to have a dialogue with the nurses on the opposite health care level, the participants usually had to communicate with the case manager. However, this was perceived to be insufficient due to their differences of perspectives. The case manager was described as having an administrative perspective, estimating older patients' right to assistance, and as not assessing older patients' needs from a nursing perspective.

A1:

- (Hospital nurse) But like us we have patients being admitted... and it is home care that knows and is familiar with the patient that they take care of on a daily basis. They talk to a case manager who maybe reads from the computer... perhaps a report... then it would help to call the nurse directly and talk... because that intermediary it is kind of...
- (Municipal nurse) We notice that a lot at the nursing home. When we receive the written documentation, after they have made the decision about the patient being admitted or having home care, the assessments are not correct in comparison with the patient when she arrives.

The theme "Administrative demands change terms for collaboration" was interpreted from the described categories. Care transition was experienced as a complex procedure in which nurses should fulfill extensive administrative duties. However, routines were framed by administrative agreements between health care levels, which sometimes limited the opportunities for professional exchanges and dialogue.

3.2. Essentials for Nursing Determines Optimal Care Transitions for Older Patients

Analysis of data from meeting 2 (A2-E2) resulted in the theme "Essentials for nursing determine optimal care transitions for older patients", interpreted from two categories; "Collaboration to identify older patients' best interest" and "Important elements for nursing practice" (Table 3).

3.2.1. Collaboration to Identify Older Patients' Best Interest

Findings indicate the older patient should be more involved during planning of the care transition. Often the nurses, along with next of kin, had suggestions for care that were presented to the older patient. The findings suggested that patient participation increased when documentation systems explicitly requested patients' opinions about their treatment and care. Agreeing about patients' needs for treatment and care after care transition was described as a difficult and ex-

Table 3. Theme, categories and sub-categories of “Essentials for nursing determines optimal care transitions for older patients”.

Theme	Essentials for nursing determines optimal care transitions for older patients					
categories	Collaboration to identify older patients best interest			Important elements for nursing practice		
sub-categories	Patient participation prior to care transition	Professionals have different perceptions of patients needs	Professional agreement about long term goals	Predictability for involved nurses and patients	Written documentation available for all involved	Municipal nurses flexibility and competence

tensive process. Hospital nurses often found the patient’s health status too poor for home care, while municipal nurses argued that patient’s health most often improved in his or her own home.

D2:

- (Hospital nurse) But then I feel at the hospital that sometimes someone gets really poor health when they are in our ward and then, all they need is to be sent home and they function very well. But then it is difficult to know “is home care enough or do they need something more or what do they really need?” (...)
- (ECR) It is complex to consider the patients’ real needs for assistance?
- (Municipal nurse) But it is very important to be open to...when the patient comes home that we come and visit and be a bit generous in the beginning, nor reduce the level of assistance afterwards.
- (Municipal nurse) We need to reassure the patient when he comes out (of hospital)...we are maybe told by the hospital that needs are the same as previously and so on but we need to discuss the things around technical utilities and make sure that they really do manage. But usually they are always better than we think they are.

Nurses across health care levels should share long-term goals for the older patient. All involved professionals should take part in creating the long-term goals, along with the older patient and their next of kin. As such, care transition should be done through shared professional planning:

A2:

- (Municipal nurse) I have been thinking about...I work at a nursing home and we see patients being admitted and coming back, and we do have sort of plans for the continuing treatment and care. We are not always updated on what has come forward in hospital, but have a more long-term and health-promoted plan for the patients who need it...who have chronic illnesses and are being cared for by different health personnel. It is in use but it is not the kind of...if one thinks of the good coordination in a good plan. It can be quite heavy and...
- (Nurse) We lack a shared goal.
- (Municipal nurse) Yes! The goal that is set by the patient and that we all are going to work towards. And why isn’t it like that? You know, it would have been...I have often thought that it would be ok if we had sort of a template

for... Now almost everybody has a care plan but still. It is missing so much.

3.2.2. Important Elements for Nursing Practice

Short notice of patient care transition was frustrating. Older patients weren't given time to digest their situation, and nurses had to fulfill the care transition within a short period of time. Predictability would give all involved parties time to prepare properly, in addition to bringing a feeling of safety and control to the older patients.

A2:

- (Hospital nurse) It would have been a bit better if we knew, perhaps one day in advance, when the patient will be offered care assistance, or where he is going to be transferred to, rather than one hour before we are off duty. I thought last time that we probably should phone them to let them know, but I don't have the time...or to tell them about the patient. But in other municipalities where they might know that the patient has been given a place in a nursing home several days in advance, then I have scheduled the time, during the day, to phone and update the place about his condition. That is absolutely the optimal way.
- (Municipal nurse) The most optimal for us...often when the case manager has...sometimes there are a lot of things that are not right, so it is not until we receive the PLO (Electronic documentation), and the medical summary and the nursing report are sent prior to the arrival of the patient, that we have the opportunity to check if we have the correct medications and equipment...do we need extra, e.g. oxygen, do we need to find a thermometer to hang on the wall, be more prepared. If not, we are suddenly taken by surprise, the decision office hasn't been aware that the patient needs oxygen, you know, and then we have to run to find it because the ambulance is waiting, and this should have been prepared a long time in advance. Because then you would have more direct contact between the nursing home and the hospital. If we do get the report in advance, we can make a phone call and ask "what do you mean by what is written?" Instead the patient arrives at ours at four o'clock, and then at eight o'clock we still haven't made his pill organizer, and then we have to call, and new staff are on duty, and there we are, going in circles.
- (Several participants) And you feel like a fool. You do not feel like a professional.

Written electronic documentation was important for patient safety. All those involved should have access to all documentation and preferably use the same data program. In addition, all documentation should be available prior to patient's care transition. There were extensive variations in municipalities' preconditions for treatment and care. Flexibility, where the nurse on site could decide the level of care needed-in dialogue with the older patient was described as optimal. Municipal nurses needed to possess the necessary competence to receive complex and severely sick older patients.

4. Discussion

The analysis resulted in two themes, “Administrative demands change terms for collaboration” and “Essentials for nursing determine optimal care transitions for older patients”, which will structure the following section.

4.1. Administrative Demands Challenge Terms for Collaboration

Our findings indicate that nurses experienced care transition demanding, having to fulfill extensive administrative duties in addition to taking care of the needs of older patients and next of kin. Planning and completing care transition is regarded as a nursing responsibility [20]. It seems that a substantial part of preparations for care transition are done during the final working hours, which might result in a work overload for the responsible nurses. Prior findings indicate that nurses prioritize between several important responsibilities during preparations for care transition, which might result in reduced compliance with discharge routines [15]. Our nurses described cooperation agreements between hospital and municipal health care as giving a clear regulation of responsibilities of each health care levels. However, they directed their attention to administrative tasks, often on behalf of the older patients’ needs. The municipal nurses described receiving the patient in accordance with the cooperation agreements. Nursing-specific objectives such as providing medications for weekends and afternoons were often not fulfilled. Norwegian hospital regions and their associated municipalities are required by law to develop cooperation agreements, to provide a concrete division of duties and responsibilities between hospital and municipal health care [5] [26]. This agreement is similar to those in other Scandinavian countries [13]. As such, we argue that the organizational structures during care transitions appear to be insufficiently appropriate to nurses’ working agenda.

Another finding was that nurses’ initiatives for collaborative dialogue were often directed through case managers. This was experienced to be inadequate given their differences of perspectives. The initial purpose of a New Public Management organization of municipal care, was to divide the contractor role within municipal health care service from that of the provider of health care [8]. It appears that attempting to direct nurses’ to intra-professional collaborations through liaising with the contractor is a challenging use of organizational structures. Previous research has often targeted communication and informational structures on an organizational level [27]. However, nurses have a long tradition of verbal reports, establishing common ground and continuity of care through two-way informational exchange [27] [28]. Recent research has focused largely on improvement of informational continuity across health care levels [16]. However, our findings clearly indicate the necessity of safeguarding essential features of nurses’ collaboration, ensuring proper channels for alliance and dialogue in care transitions when needed.

Inter-organizational continuity of care consists of two perspectives: individual continuity of care in terms of provider-to-provider, and organizational continu-

ity of care understood as structural coordination of care [10]. Similarly, our findings show how different perspectives of continuity of care contradict each other. Demands on an organizational level seem to be given priority at the expense of other nursing-specific tasks, possibly due to financial incentives adding weight to the priority of duties. Summing up, we suggest establishing organizational structures across the health care levels that facilitate nurses' collaboration, in order to improve continuity of care.

4.2. Essentials for Nursing Determine Optimal Care Transition for Older Patients

Hospital and municipal nurses in our study discussed patient participation in the process of planning the destination for the care transition. Patient participation is a formalized value that permeates all levels of health care [29]. Even so, patient participation is still found to be complex and insufficient [7] [30]. Some of our participants described it as a paradox that older patients' opinions about their treatment and care were not a fully formalized rubric in the electronic documentation system, which could be a way to optimize patient participation. Compared to the municipal nurses, the hospital nurses often had an impression of the older patient as frailer. The discussions underline the differences of perspectives and opinions of care in hospital and municipal health care. Exchange of views and opinions provided additional insight, which is also found in previous studies [21] [11] [31]. Our nurses suggested that to create long-term goals for patient treatment and care could optimize patients' experience of continuity, including in any subsequent admissions. The goals should stem from the older patient's motivation and perception of her own situation in combination with the professional assessment by hospital and municipal nurses. This perspective is in line with Haggerty *et al.* [9], who emphasises continuity of care where the patient's perceives whether care is experienced as continuous. We argue that a long-term aim could optimize and improve patient participation as well as lead to a joint effort in tailoring the care to older patients needs across health care levels.

In our focus groups, essentials for nursing were discussed as important for an optimal care transition. Following a timeline where all involved nurses, as well as the older patient, were prepared well in advance of the care transition was highlighted. A care transition that was not properly prepared seemed to compromise involved nurses' professionalism, and led to a poor start of the older patients' long-term municipal health care. Temporal aspects have previously been identified as influencing the quality of discharge of older patients [32].

There was agreement in the focus groups about the role of electronic documentation systems in safeguarding and improving care transitions, in line with previous studies [18]. Hospitals and municipals should optimally use the same documentation systems, and the information should be available for all involved well in advance of the care transition. Some of our nurses indicated that medical information from the medical doctor was often delayed until after the municipal

nurses received the patient. In addition, there was no consensus in the focus groups about whether the electronic documentation should be supplemented with written documentations. There seem to exist parallel-varied routines, with different assumptions and practices in different municipalities. This might be explained by the historical evolution of municipal health care [8]. The approach should be standardized and not left to each individual nurse to anticipate what to do. There was a need for verbal dialogue if there was particularly sensitive information or exchange of competence. This was discussed as an important supplementary to the electronic documentation. The professional benefits of verbal dialogue are also found in previous research [33]. We argue that care transition does not just involve the passing of the patient from one point to another. Based on our findings it should, optimally, comprise the creation of a professional environment covering eventualities in the patients' treatment and care that might surface during and immediate after the care transition. In addition, through the focus groups it became clear that there are no communication channels known by the nurses where care transitions in themselves can be discussed and evaluated. We suggest that to ensure further continuity of treatment and care across health care levels there should be regular evaluation on a provider-to-provider level, in addition to the organizational level.

4.3. Recommendations for Clinical Practice

Clinical practice should be aware that a continuous care transition is influenced on an organizational level as well as a provider level. Clinicians are recommended to take into consideration the described essentials for nursing which could contribute to a more optimal care transition from both a nursing perspective as well as for older patients. Hospital and municipal nurses along with the older patient should create shared long-term goals for treatment and care during care transition. Important elements for nursing were experienced as influencing the possibilities of facilitating an optimal care transition. Cooperation agreements are suggested to clarify hospital and municipal health care responsibilities, but be flexible enough to facilitate nurses' professional judgements during care transitions. We recommend that hospital and municipal nurses should have open communication channel for discussing and evaluating care transitions.

4.4. Methodological Considerations

The group distribution ensured that participants representing the same municipality or hospital participated in the same groups, which increased the possibility of having some acquaintances with whom they were familiar. In addition, participants' different backgrounds contributed to depth and variation in their contributions. One limitation was that fewer male nurses participated in the study. However, that might reflect the gender distributions of nurses in Norway. In addition, the groups had approximately equal representatives from hospital and municipal health care, to facilitate a positive group dynamic. A balance between homogeneity and heterogenetic of the focus groups can reveal the diversity of

experiences of participations [23]. Another possible limitation of the study might be the introduction of patient quotations as evocative material, which negotiates between steering and outlining the group dialogues [23]. All participants expressed recognition of older patients' experiences and built on this further with their own complementary reflections, and some participants brought handwritten notes of reflections to meeting 2. As such, the patient quotations seemed to give the participants room for elaboration of the topics they found most important. In addition, arranging two meetings of each focus group gave an opportunity to address different features of care transition and follow up the discussions further, leading to a vast data material illuminating the aim. The analysis was done separately by the authors and discussed within the research team. Detailed descriptions of analysis and presentation of quotations seeks to ensure transparency. As we see it, these considerations might strengthen information power as an important aspect of internal validity [24]. Taking into consideration culture and context in an international perspective, as well as described methodological and analytical concerns, our findings might be transferable to similar situations.

5. Conclusion

Our study explores hospital and municipal nurses' experiences of continuity during care transition of older patients. Administrative demands sometimes limited the nurses' opportunities for establishing collaborative alliance and dialogue across health care levels. Care transitions should be continuous in accordance with the patients' best interests, provided through a collaborative relationship involving nurses from both health care levels. Essentials for nurses' practice should be taken into consideration when establishing administrative routines for care transition, in order to ensure collaboration across health care levels and provide continuous treatment and care for the older patient. When making improvements to care transitions, all dimensions of continuity of care should be taken into considerations.

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The Impact of Sociodemographic and Health Variables on Self-Care of Subjects Receiving Hemotransfusion

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Open Access

Abstract

This study analyzed the relationship between self-care in subjects who received a blood transfusion in a university hospital with their sociodemographic and health conditions. A descriptive and exploratory research with a qualitative approach was carried out in the Transfusion Ambulatory sector of the University Hospital in Niterói, Rio de Janeiro from July to November of 2014 with a sample size of 12 patients. Data were collected through a questionnaire of semi-structured questions; content analysis was based on the thematic approach. Sociodemographic data from subjects who received a blood transfusion were evaluated with respect to the education they received regarding self-care at home as well as their emotional balance in facing the health-disease process and their perspective on their quality of life. Educating subjects who receive blood transfusions requires that the medical professionals have an understanding of their patient's socioeconomic and cultural condition. This information will contribute to a better understanding of self-care when blood transfusion is necessary.

Keywords

Hemotherapy Service, Blood Transfusion, Nursing Care, Health Education

1. Introduction

Transfusion therapy is indispensable in health practice because it reduces mor-

tality, prolonging and improving the quality of life of patients who present with a variety of clinical conditions. The correction of anemia resulting from various causes, and blood replacement in complex surgical procedures as well as hematological and oncologic diseases, are among the benefits of this procedure. However, transfusions are not free from risks fatalities [1].

Although hemotherapy services perform strict control over their products, risks related to production, storage, the release of serology profiles, and preparation of blood components still exist. It is important to identify these risks and to implement safety techniques such as indicators, adverse event monitoring, and audits to reduce or prevent adverse events [2].

Because hemotherapy is a health specialty that depends on specific scientific and technical knowledge, the inclusion of hemotherapy content in nursing courses and related areas is important: therefore, future professionals can provide safe assistance before, during, and after the transfusion of blood components, which is a specific procedure. It is fundamental to know how to recognize a transfusion reaction, and thus, provide quality care to these patients.

The presence of professionals with specific knowledge in this area of performance has become fundamental. Since the 1990s, the role of nursing in hemotherapy has undergone several changes to keep up with the evolution of hemotherapy. New protocols were necessary to not only comply with legal requirements, but also to regularize various activities, provide quality service, and minimize risks and complications in all stages of the blood cycle [3] [4].

Resolution No. 306/2006 of the Federal Nursing Council (COFEN) defines the competencies and duties of the hemotherapy nurse in article 1. These responsibilities include, but are not limited to, fully assisting donors and recipients and their families; promoting preventive, educational, and curative actions among recipients, family members, and donors; performing clinical triage for the evaluation of donors and recipients; and implementing actions related to the supervision and control of the nursing team [5].

In the United States (USA) as well as in other countries, the increase in blood transfusions results from changes in the population demographics and technological advances of procedures, hence the need for an increased number of donations [6]. It is assumed that 22 million transfusions will occur on average in one year; despite improved hemotherapy protocols, about 20% of subjects receiving transfusions show adverse effects of varying clinical severity. This statistic has adverse implications for health and logistics on administrative and economic bases [7].

According to the World Health Organization (WHO) [8], 18% of red cells are used for trauma in developing countries while 7% is used in developed countries.

In order to protect donors and recipients, the Brazilian Ministry of Health (MS) in the Resolution of Collegial Direction—RDC 57 of December 17, 2010 by ANVISA established minimum requirements for services that perform activities related to the blood production cycle, from collection to transfusion. Ordinance MS no. 1353 of June 13, 2011 approved the Technical Regulation for Hemothe-

rapeutic Procedures (RTPH) in accordance with the principles and guidelines of the National Blood Policy [9]. Ordinance nº2712 of November 12, 2013 redefined this regulation [1].

In Brazil, the donation of blood is voluntary, anonymous, altruistic, and unpaid. Donor anonymity means ensuring that recipients do not identify the donor of the blood received or that donors do not identify recipients, except in technically justified situations [10]. In 2013, the MS reduced the minimum age of donors from 18 to 16 years (with the consent of guardians) and increased the maximum donor age to 69 years; the maximum age for the first donation is set at 60 years in order to increase the number of new volunteers to 8.7 million [1].

Nurses who deal with the entire blood cycle process perform complex and sensitive work such as clinical screening of blood donors, nursing consultation to donors with positive serology, guidance to family members with due referrals for treatment, organization of teamwork, and transfusion of blood components. They must also cope with adverse transfusion reactions which may occur during or after therapy. A well trained and qualified hemotherapy nursing team should provide a safer and more efficient transfusion process [11].

The nurse is responsible for assisting the patient, valuing him as an individual, and offering preventive, curative, and rehabilitative care so that the patient may actively participate in his care as fully as possible.

The term self-care was first mentioned in 1958 when nurse Dorothea Elisabeth realized patients needed to take care of themselves and required guidance to achieve self-care. This realization resulted in the development of the general nursing theory of self-care deficit. The practice of self-care requires the patient's realization that they have the aptitude and ability to self-care, and may contribute to improving their quality of life [12].

Training nurses to effectively educate subjects in self-care is important to achieving the quality of life for the patient. Thus, in order to develop educational practices for nurses which are directed to a patient's specific needs, this study analyzed the self-care of university hospital patients who received blood transfusions with respect to their sociodemographic and health conditions.

2. Method

This was a descriptive and exploratory study with a qualitative approach. The sample consisted of 12 subjects. Data were collected from July to November of 2014 in the Ambulatory Transfusion section, which is part of the Hemocenter at the Antônio Pedro University Hospital of the Fluminense Federal University located in Niterói, Rio de Janeiro, Brazil (HUAP/UFF/Niterói/RJ). HUAP is a well-regarded teaching and research institution; it belongs to the federal public network linked to the Ministry of Education and the Unified Health System (SUS) hierarchy at the tertiary and quaternary levels. It operates 24 hours a day, however, the ambulatory service providing assistance with transfusion therapy and therapeutic bleeding closes at 7 pm.

The subjects recruited for this study were mainly from the Hematology and

Oncology outpatient clinic and most had diagnoses of Lymphoma, Leukemias, Myelodysplasia, HIV, Multiple Myeloma, Myofibrosis, and other types of cancer; some of these clients were in palliative care. The average number of monthly outpatient transfusions is 70.

The nursing team that works in the Transfusion Ambulatory sector consists of one attending nurse and one nurse Coordinator, eleven nursing technicians and assistants, and two hemotherapist physicians.

The content analysis was based on the thematic of Bardin [13] and considered the theme as the main element, which can be represented by a word, phrase, or summary. It consists in discovering the nuclei of meaning that make up the communication and whose presence or frequency of appearance in the messages, texts, or speeches might have a meaning for analysis according to the objective. The inclusion criteria were subjects who received an outpatient blood transfusion and were over 18 years of age at the time of data collection. The exclusion criteria were subjects who experienced an adverse event during the transfusion or demonstrated some limitation during the interview that made the comprehension such as difficulty speaking, impaired visual acuity, or hearing loss. All participants signed the Free and Informed Consent Form (TCLE) and agreed to participate in the study before starting the study. Subjects were interviewed before and/or during the transfusion therapy. The socio-demographic data obtained in the interview were recorded in a questionnaire with semi-structured questions by the researcher.

The study was approved by the Ethics Committee on Research involving Human Beings of the School of Medicine of the Fluminense Federal University/FM/UFF/HUAP under No. 608875 in 2014. The ethical precepts of voluntary and consensual participation were respected. The study did not lead to risks or physical, economic, or social damages to participants.

3. Results

The study involved 12 individuals, 50% men and 50% women (**Table 1** and **Table 2**). The age range in the sample was from 25 to 73 years, with an average of 56.75 years; 75% was in the range between 50 and 73 years old. The diseases presented in **Table 1**, which are individualized, correspond to the participants in this study in which the diagnoses of Myelodysplasia and Multiple Myeloma were predominant, both with 16.7%; 66.7% of participants used the health services of the Hospital University only; 75% had education equivalent to incomplete middle school; 75% declared themselves as white, 66.7% were Catholics, 33.3% were married, 25% were widows; and 25% were unmarried. A total of 50% were retired with a monthly income between one and three Brazilian minimum wages (83.30%).

All participants lived in urban areas, 75% in houses; of these, 50% lived with two other persons; 91.7% of clients used only water provided by the water supply distribution network, however, one client also used water from an artesian well. All participants stated having basic sanitation and garbage collection in their

Table 1. Sociodemographic data of the Participants of the research according to Gender, Age range, Diagnoses and Blood transfusion, University Hospital Ambulatory, Niterói, Rio de Janeiro, 2014.

Participants	Gender	Age range	Diagnoses	Blood transfusion
Participant 1	Female	25	Lymphoma	Red blood cells concentrate
Participant 2	Female	57	Lymphoma + HIV	Platelets + hematocrit concentrate
Participant 3	Male	71	Myelodysplasia	Red blood cells concentrate
Participant 4	Female	32	Anemia to be clarified	Platelets + hematocrit concentrate
Participant 5	Female	73	Multiple Myeloma	Red blood cells concentrate
Participant 6	Male	71	Myofibrosis	Red blood cells concentrate
Participant 7	Female	56	Multiple Myeloma	Red blood cells concentrate
Participant 8	Male	66	Plaquetopenia to be clarified	Platelets + hematocrit concentrate
Participant 9	Male	64	Oropharyngeal cancer	Red blood cells concentrate
Participant 10	Female	43	Sickle cell anemia	Red blood cells concentrate
Participant 11	Male	60	Lung cancer	Red blood cells concentrate
Participant 12	Male	63	Myelodysplasia	Red blood cells concentrate

Source: Data from the research, 2014.

homes.

The sociodemographic and health conditions factors shown in **Table 1** and **Table 2**, which affect self-care, are correlated because 75% of participants have low levels of education with incomplete elementary education, that is, they are only literate, and therefore, have difficulty in understanding the guidelines given by nurses, which hampers the adequate self-care directed to the health problems presented, aggravated by the conditions of precarious housing and low wages. These conditions are insufficient to their survival and interfere in their social life such as difficulties related to transportation, feeding, acquisition of medication, and adherence to treatment.

In **Table 1**, follow the data according to interviews performed at the University Hospital.

These data are in agreement with the literature in relation to age, marital status, education, occupation, income, and disease occurrences; the majority (75%) was between 50 and 73 years old, 75% had incomplete elementary and middle school, 50% were retired, 25% were housewives, and 83.30% received between 01 and 03 Brazilian minimum wages and were under treatment due to illness. All reported following some type of religion.

Each blood bag has an average of 300 ml in the hemotransfusion in the outpatient clinic; sometimes plasma is needed and sometimes platelets are needed. Most of the time, each client receives 300 ml of transfusion. It occurs that, sometimes patients (25%) need a larger volume of blood components, which requires

Table 2. Sociodemographic aspects of clients submitted to blood transfusion at the University Hospital Ambulatory, Niterói, Rio de Janeiro, 2014.

Variables	Specifications	n = 12	%
Gender	Female	6	50
	Male	6	50
Hemotransfusion	1 bag	9	75
	2 bags	3	25
Age range	18 to 29 years	1	8.3
	30 to 49 years	2	16.7
	50 to 73 years	9	75
Diagnoses	Lymphoma	1	8.3
	Lymphoma + HIV	1	8.3
	Myelodysplasia	2	16.8
	Multiple Myeloma	2	16.8
	Myofibrosis	1	8.3
	Plaquetopenia to be clarified	1	8.3
	Oropharyngeal cancer	1	8.3
	Sickle cell anemia	1	8.3
	Lung cancer	1	8.3
	Anemia to be clarified	1	8.3
Health Services	Uses only the University Hospital	8	66.7
	Uses basic healthcare units and private services at popular prices	4	33.3
Education	Incomplete elementary and middle school	9	75
	Complete elementary and middle school	1	8.3
	Complete High School	2	16.7
Race	White	9	75
	Black	2	16.7
	Brown	1	8.3
Religion	Catholic	8	66.7
	Evangelical	3	25
	Espiritual	1	8.3
Marital Status	Singles	3	25
	Widowers	3	25
	Married	4	33.3
	Divorced	2	16.7
Occupation	Retired	6	50
	Housewife	3	25
	Self-employed	2	16.7
	Administrative assistant	1	8.3
Income	0	2	16.7
	1 to 3	10	83.3
Housing/poor neighborhoods in Niterói	House	9	75
	Apartment	3	25
Household	Live alone	3	25
	Two people	2	16.7
	Three people	6	50
	Twelve people	1	8.3
Water supply	Network water supply	11	91.7
	Water from a well	1	8.3

Source: Data from the research, 2014.

more than one blood bag, and thus they receive two hemotransfusion bags in the same day at the most and according to their health and age. If necessary, the doctor plans another transfusion in another day.

One of the limitations of this study is related to the size of studied sample because only 12 clients met the inclusion criteria. However, this contribution is fundamental considering the growth of the elder population [14]. Therefore, it is suggested that other studies be carried out with larger populations of clients in hemotransfusion, aiming at improving their quality of life.

4. Discussion

In this study, the same number of women and men was observed among participants, however, in other studies women predominate [14].

Our epidemiological results are in agreement with the statistical data from the National Cancer Institute (INCA) which shows that the incidence of cancer occurs mainly in clients over 40 years old with a low level of education and low monthly income. The low level of education prevents access to understanding prevention and early detection of diseases, and increases the difficulty of accessing health services linked to the SUS. Beliefs and distorted perceptions about diseases on the part of poor people with lower levels of education are also factors that can contribute to a delay in obtaining health services and lead to the diagnosis of advanced stage neoplasms [14].

Thus, an individual needs to understand some basic information in order to manage his health condition. However, knowledge alone is not sufficient to promote behavioral change, a change which involves other variables such as education, time since diagnosis, health and illness beliefs, family support, and ease of access to health services. Studies have pointed out the importance of spouses or other family members to individuals with life-threatening illnesses: the greater emotional support provided improve the chances of adapting to life-threatening illnesses and the stress caused by them [15] corroborating the data in this study because the majority were married (33.3%) and 50% live in the company of other people.

Although there is a possibility of cure when diagnosed early and interrupted in one of its phases, neoplasia is one of the most feared chronic-degenerative diseases, involving multiple risk factors such as environmental, lifestyle, and genetics. According to some studies [16], the occurrence of these conditions has increased over the decades and have more frequently been associated with age. All interviewees in this study live in urban areas. Urbanization and industrialization contribute to environmental risk factors and socioeconomic inequalities, to which about 80% of cases of cancer are attributed [17].

Some authors have noted the large number of elderly people who are diagnosed late, making treatment difficult [18]. Late diagnoses may be due to a poor understanding on the part of the medical professional of how to effectively communicate with elderly patients. Another reason is the scarcity of studies and publications in the area of oncogeriatrics, mainly at the national level.

The term “health” is related to the historical-cultural changes in the evolution of man and his organizations due to social, economic, cultural, and political interferences of a given social organization. In this research, 66.7% of the clients use only the University Hospital as health services. Therefore, a set of conditions, goods, and services used by individuals according to their behavior patterns is considered healthy, and therefore, they constitute parameters of normality according to their way of living in a given society aiming for autonomy and improved quality of life [19].

The testimonies of these clients showed the concepts of health that are necessary to maintain life through expressions of functionality related to roles such as working, walking, practicing physical activities, and enjoying the quality of life despite the illness. The quality of life is related to self-esteem and personal well-being covering a number of aspects such as functional capacity, socioeconomic level, emotional state, social interaction, intellectual activity, self-care, family support, health status, and cultural, ethical, and religious values. It also includes lifestyle, job satisfaction and/or satisfaction with daily activities, and the environment in which one lives [20].

As for religiosity, spirituality, or religious beliefs, it can benefit families as a means of coping, social and emotional support, and hope during stressful situations experienced in cases of illness and possibility of death. An individual’s spirituality may contribute to hope and optimism and allow the person to face the stress resulting from illness in a more positive way [21] [22]. Some studies indicate that religious communities usually provide support ranging from interaction and social support to contribution in tasks, finances, and transportation, to patients with oncological diseases [21].

Most of the patients who require ambulatory transfusions are accompanied by relatives and/or friends who demonstrate anxiety and concern through facial expressions and questions about transfusion; they sometimes arrive quite physically and emotionally debilitated, particularly during the first few transfusions. Certain clients reported symptoms such as fever, pruritus, and urticaria occurring at home and after the transfusion.

Discussions with subjects who received a blood transfusion, provided an understanding of factors that contribute to the improvement in the quality of nursing care in this setting, and demonstrated the importance of guidelines for the care that should be provided to subjects to ensure they receive an integral and planned assistance. Care guidelines should include subject-based health education that encourages the process of awareness and attention to self-care, especially at home. This fact allowed us to reflect on possible late transfusion reactions that were not being detected or adequately treated at the level of the subject’s condition. Thus, health education activities must be focused on the client’s needs, aiming at self-care in order to reduce possible complications.

Societies have different discourses about health/illness and about the body, which usually reflects a worldview and social reality. It is possible to perceive the relationship between the way of living, getting sick and dying, and social condi-

tions, which allows us to relate living conditions, habits, and illness.

Therefore, health is a reflection of the country's political re-democratization environment and, above all, of the strength of the health movement in the struggle for the expansion of social rights: "Health is the right of all and a duty of the State, guaranteed through social and economic policies, reducing risks of diseases and other illnesses, and equal universal access to actions and services for health promotion, protection, and recovery", as recommended by WHO. The greatest merit of this concept is the clarification of the social determinants of health and disease, aspects often neglected in models that favor individual and sub-individual approaches [23]. In order to alleviate these problems, the State should guarantee the right of the population to quality medical services, which provide diagnosis and treatment.

Cancer is one of the diseases most feared by patients, family members, and close friends, who most often struggle with negative feelings such as fear of diagnosis, fear of treatment and side effects, the uncertainty of prognosis, and especially fear of pain and the possibility of death [21]. These emotions were corroborated by the subjects who participated in this study.

Changes due to on co-hematological diseases may compromise independence and autonomy in the elderly, leading to limitations for the establishment of self-care. These limitations include knowledge about the disease, motivation and capacity to face the diagnosis, and incentive to continue the treatment proposed by the health team [22].

Thus, the educational practice focused on self-care for the elderly patient may favor emphasizing coping and adaptation as an effective alternative to education. Considering education as an important instrument, Orem advocated raising awareness in the individual through reflection on reality and by encouraging participation in the decision-making process. The more aware the client, the better he will cope with his reality. Working to engage the patient in the decision-making process is an extremely important task for the nurse. Having a fully engaged patient facilitates the success of self-care through a horizontal educational, dialogic, and participatory work. These care activities are related to individual habits of life, customs, rituals, and beliefs, and are related to the way in which these individuals assimilate and use the resources available in their environments [24].

Understanding the patient as an individual with doubts, curiosities, and knowledge resulting from community practice should be the first step towards the establishment of a progressive educational practice. To think of the patient as a person without the understanding and ability to decide about his actions or expand and transform his knowledge is a thing of the past [25].

Health education is more than just curative assistance, and includes prioritizing preventive and promotional actions, understanding the socioeconomic status of the users of health services, stimulating them to fight for more dignity and increasing quality of life. In this context, health education aims to guarantee the dignity of people through the promotion of health, fundamental human rights,

self-determination, and responsibility for life itself with a view to their existence and human needs [26].

Nurses and other health professionals play an important role in this activity showing alternatives to healthy habits, social integration, and independence in daily activities, which can improve the health of clients, families, and the population in general.

Therefore, the necessary interventions for health promotion should be centered on collective work and guaranteed through social policies aimed at individuals and communities with multidisciplinary participation and integrated into networks which consider the health needs of the population and which allows assistance that is shared, participatory, humanized, and resolute. These interventions need to facilitate the planning and development of educational actions where clients and their families are the focus of the health care [27].

The nursing activity in the hemotherapy sector can assume a social and health commitment with the purpose of caring for the population to improve their quality of life [3]. The educational practices have been expanded in the field of health and named in various forms that are related to the history of Education and Health and the way in which these practices have been appropriate. The educational action related to nursing care and the need to find academic environments that can facilitate this practice are important to our professional training.

Health professionals should emphasize the exchange of experiences and knowledge of clients and families. The nurse who is the primary caregiver should establish a dialogic and reflexive relationship reflecting an ongoing interactive process to improve health conditions [28].

Thus, the nurses' guidance is necessary for home care after transfusion and should include instructions on recognizing transfusion reactions that may be acute or immediate occurring during or up to 24 hours after the transfusion, or late or not immediate occurring after this period [29].

It is necessary for nurses to emphasize to clients, family members, and/or caregivers that these reactions can happen especially in the first 24 hours after the transfusion procedure. Should any adverse event occur, they must seek medical attention immediately.

Regarding the care and maintenance of life, the participants describe an improvement after transfusion, including well-being and disposition for life. They demonstrated the knowledge of the importance of this therapy in their speeches; however, in order to be healthy, favorable conditions and their maintenance are necessary for an improved quality of life.

To provide care for people in special situations such as fragility and lack of autonomy requires extended training or specialization.

This study developed a protocol for patients admitted to ambulatory hemotransfusion in order to provide the nursing team with clarity about the activities involved during and post transfusion.

5. Conclusions

Analysis of sociodemographic data and health statistics of the patients receiving a blood transfusion at the University Hospital revealed the need to build an assistance protocol. This protocol will provide information about home self-care to patients. Nurses and other professionals should have a better understanding of their patients and socio-economic and cultural conditions, information, which may facilitate their relationship and possibly contribute to self-care.

Therefore, a better understanding of the individual patient's demographics on the part of the educator-counselor can stimulate subjects to actively participate in their self-care. The essential goal of nursing is to provide quality health care, a goal, which may be facilitated by recognizing that a patient is an individual with unique needs and values which must be treated integrally, without separating mind from body. A quality nursing care focused on self-care aims to improve the client's quality of life.

Thus, the nursing care provided during the transfusion procedure is aimed at immediate care; there is a need for health guidelines for these clients and their relatives regarding possible adverse events that may occur during and after treatment.

Hence, it is important that new research is carried out within the scope of nursing professionals and multi-professionals to improve the quality of life of patients and enlighten the conditions for their self-care at home.

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Value Based Purchasing and Nursing Case Management

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Abstract

The implementation of value based purchasing will bring major changes to the delivery of health care in the United States. This effort is being led by the Medicare Access and CHIP Reauthorization Act (MACRA). Medicaid and private insurance plans are developing similar programs. These programs reflect a change in pay or incentives in the direction of primary and ambulatory care at the community level. This study described the use of nursing case management as a tool for monitoring and coordinating the impact of value based programs at the community level. It suggested that, under these programs, nursing case management can contribute to reduction of hospital admissions/discharges, emergency department visits, and hospital readmissions. This can be accomplished through monitoring of utilization levels for these indicators. These are major objectives of MACRA and related programs. The study also suggested that nursing case management can contribute to the development of new programs, such as Complex Care, as a means of reaching these objectives. The study included estimates of the costs and benefits of using case management to reduce hospital admissions for low severity of illness patients at the community level. It suggested that the service can provide important opportunities for health planning and development in this area.

Keywords

Hospital Utilization, Hospital Admissions, Hospital Emergency Departments, Managed Care, Nursing Case Management

1. Introduction

Important changes in the health care system of the United States are developing. As the national debate concerning the future of the Affordable Health Care Act

continues, these changes will probably have a greater impact on the delivery and coordination of care [1].

A number of these developments comprise the value based purchasing programs focusing on improving the efficiency and outcomes of services through primary and ambulatory care. These include the Medicare Access and CHIP Reauthorization Act (MACRA) program that will take effect on January 1, 2017. They also include State Medicaid and private insurance value based purchasing programs [2] [3] [4] [5].

Unlike many previous initiatives, these programs focus on improving the outcomes and efficiency of care through primary and ambulatory care, rather than through hospitals. The MACRA program ties physician payments under the Medicare fee schedule to performance. It provides for 4 percent negative payment adjustments under the Medicare fee schedule for physicians who do not participate. Physicians who participate may obtain positive payment adjustments depending on the cost reductions that they generate [6] [7] [8].

Under MACRA, positive payment adjustments will depend on the extent to which each participating physician reaches quality and performance levels. These involve reducing hospital admissions, hospital readmissions, and emergency department visits. The program will substantially increase the focus on keeping patients out of the hospital. This means that physicians will be rewarded for judicious referrals across the health care continuum. The program has established the criteria and left it for providers to make the necessary adjustments.

The MACRA program also includes incentives for hospitals to reduce acute care costs. This will impact cooperative activities between physicians and hospital partners [6].

These developments are also consistent with the results of the general elections of 2016. The MACRA program was sponsored by Republicans when it passed both houses of Congress. It is also anticipated that Medicaid reform programs will address conservative concerns with the high costs of this payer [8] [9] [10].

In addition to MACRA, the Medicare Accountable Care Organization programs are an important component of the transition to alternative models for more efficient care. For each Accountable Care Organization, the program focuses on limiting the average level of Medicare spending during a three-year period. Accountable Care also addresses value based purchasing objectives. [11].

These programs have generated new interest in the use of nursing case management in health care as a means for adjusting utilization of services such as hospital admissions and emergency department visits. Historically, nursing case management has been used as a mechanism for coordination of health care services, especially for hospital functions such as discharge planning. Case management has also been employed in the monitoring of patients and coordination of services for disease management. Since the early 1980s, interest in case management as an interprofessional care delivery model has increased [12] [13]. Nursing case management is now performed in every health care setting pro-

viding value to patients and their health care systems [14].

Under the Affordable Health Care Act, the use of registered nurses for care coordination increased because of the complexity of cases. This included a major emphasis on evidence based practice [15] [16].

The implementation of value based programs has stimulated additional interest in the use of nursing case management on a community wide basis. This includes use of it in primary and ambulatory care. This role emphasizes the use of case management for coordination of services at the community level. This is the arena where most health care services are delivered. The community level is also the location of primary care and ambulatory care services that are important to value based purchasing [15]. Nursing case managers are largely the drivers of care management and disease prevention programs for patients that are high risk and/or high cost, the focus of value based purchasing programs [14].

2. Population

This study described potential uses of nursing case management to address health care utilization related to value based purchasing in the metropolitan area of Syracuse, New York. Most of the case management in this area has been developed by the Syracuse hospitals. They include Crouse Hospital (19,790 discharges excluding well newborns, 2015), St. Joseph's Hospital Health Center (24,808 discharges excluding well newborns, 2015), and Upstate University Hospital (28,236 discharges excluding well newborns, 2015).

The Syracuse hospitals provide primary and secondary acute care to an immediate service area with a population of approximately 600,000. They also provide tertiary services to the Central New York Health Service area with a population of approximately 1,400,000 [17].

The Syracuse hospitals have employed nursing case management to address a number of utilization and outcomes issues. These include programs to reduce inpatient lengths of stay between 1983 and the present and efforts to reduce inpatient readmissions beginning in 2012. A number of these programs have been coordinated by the Hospital Executive Council, the planning organization for the hospitals [18] [19].

The implementation of value based programs in the service area of the Syracuse hospitals is being generated through the three major payers. The largest component of hospital discharges involves Medicare, through the MACRA program. They also include Medicaid through the Delivery System Reform Incentive Payment (DSRIP), a program focusing on reduction of hospital admissions and emergency department visits administered by New York State government. The largest health insurance payer in the local market, Excellus Blue Cross Blue Shield, is implementing value based purchasing as an Accountable Care and Quality Arrangement (ACQA) program.

Each of the Syracuse hospitals is planning to address value based purchasing. This study summarizes the background and potential of some of these initiatives.

3. Method

The major focus of MACRA and other value based programs is reduction of the costs of expensive services such as hospital admissions and emergency department visits through judicious use of services across the health care continuum. Physicians who reduce hospital admissions and emergency department visits will be rewarded financially. Those who do not will be penalized. Historically, the Hospital Executive Council has tracked these indicators for the Syracuse hospitals.

This study was developed by the case management leaders of the hospitals. They provided ethical clearance for the study.

Data for the study were developed to address the use of nursing care management in the implementation of value based purchasing. Specific components of this approach follow.

The initial component of the study involved historical data concerning hospital admissions and emergency department visits in the health care system. These indicators are a focus for nursing case management in primary care and ambulatory care with respect to value based purchasing programs. This information was identified by year for 2010-2016, the most recent 12 month periods for which data were available.

Hospital admissions were identified as discharges per 1000 population for residents of Onondaga County, the center of the Syracuse metropolitan area. The resident data for this indicator were obtained from the New York State Planning and Research Cooperative System, SPARCS, by the Hospital Executive Council.

Hospital utilization was also identified as admissions/discharges for adult medicine, the service associated with most efforts to reduce inpatient admissions. The study data were collected for total adult medicine discharges and for adult medicine discharges at Minor severity of illness in the combined Syracuse hospitals for 2011-2016. Severity of illness was identified with the All Patients Refined Diagnosis Related Group System. Data were collected by the Hospital Executive Council.

Emergency department visits and ambulances received were employed to track changes in the use of this service. Both were collected from Hospital Executive Council data. Visits were obtained from the individual Syracuse hospitals. Ambulance transports were obtained from a software system that connects the hospitals.

The second component of the study focused on another component of hospital admissions and discharges under MACRA, inpatient readmissions within 30 days. It included numbers of annual readmissions and readmission rates for adult medical-surgical patients between 2012 and 2016. These data were generated using the Potentially Preventable Readmissions software developed by 3M™ Health Information Systems. This information reflected the impact of nursing case management programs addressing readmissions at two of the hospitals.

The third component of the study focused on the use of case management to develop Subacute and Complex Care Programs in the Syracuse hospitals. These programs were employed to reduce hospital lengths of stay for discharges to nursing homes, however, they could also be used to address other components of health care utilization.

The Subacute and Complex Care programs were developed by case managers to address the needs of patients requiring long term acute care in the Syracuse hospitals. Through them, nursing care management extended from coordinating to creating services. The programs were based on studies of factors responsible for the longest hospital stays. They included Subacute Programs responsible for individual therapies such as intravenous medications and extended wound care, as well as Complex Care programs that involved multiple therapies. The Hospital Executive Council has coordinated the programs.

Data concerning lengths of stay for discharges to nursing homes were based on severity of illness for adult medicine and adult surgery patients in the combined Syracuse hospitals for 2008-2015. These data were developed using the All Patients Refined Diagnosis Related Group System developed by 3M™ Health Information Systems. The system is based on the principal and secondary diagnoses, as well as demographic indicators such as age, gender, and residence.

The fourth component of the study focused on examples of the potential costs and benefits of nursing case management under value based purchasing. It involved data related to adult medicine admissions/discharges at Minor severity of illness in the Syracuse hospitals. This population has high potential for avoidance of admissions under Medicare, Medicaid, and private insurance programs.

In this analysis, the potential costs and benefits of avoiding 2 percent, 5 percent, 10 percent, and 15 percent of 4100 annual adult medicine Minor severity admissions in the combined Syracuse hospitals were identified. Costs were based on case management services for experienced professionals and alternative services for home care and medications in the community. Benefits were based on assumed payments for all payers in the community.

4. Results

The initial component of the analysis included hospital adult medicine admissions/discharges and emergency department visits in the metropolitan area of the Syracuse hospitals. Related data are summarized in **Table 1**.

Reduction of hospital inpatient admissions and emergency department visits is a major objective of value based purchasing because of the costs of these services. The study focused on adult medicine admissions because of the potential impact of case management on this population.

The study demonstrated that, between 2011 and 2016, the number of total adult medicine discharges in the combined Syracuse hospitals declined by 7.0 percent, from 32,503 to 30,235. During the same period, the number of adult medicine discharges at Minor severity of illness declined by 14.9 percent, from

Table 1. Selected utilization indicators, Syracuse Hospitals, 2011-2016.

	2011	2012	2013	2014	2015	2016
Onondaga County Resident Discharges Medical/Surgical and Pediatric Neonatal	86.4	87.9	84.2	86.9	89.9	N/A
Adult Medicine Discharges	32,503	34,252	33,192	32,706	33,120	30,235
Adult Medicine Discharges - Minor Severity of Illness	4,831	4,874	4,375	4,224	4,078	4,112
Emergency Department Visits	184,570	199,344	201,968	210,794	215,763	215,207
Ambulance Transports Received	57,012	61,583	62,516	66,081	67,774	62,707

Onondaga County resident discharges per 1000 population based on New York Statewide Planning and Research Cooperative System (SPARCS) statewide data.

Adult medicine discharges for 2016 annualized based on January-November 2016 actual experience.

4831 to 4112. Much of these reductions occurred because of the movement of a large number of adult medicine inpatients to medical observation status beginning in October 2013. This change had a disproportionate impact on low severity of illness admissions because they had the most potential to be served without inpatient admission in 2016. The population was stable during this period.

This information suggested that, during 2015 and 2016, adult medicine utilization at Minor severity of illness had stabilized at approximately 4100 annual discharges in the combined Syracuse hospitals. This equated to approximately 342 discharges per month. For case management purposes, this level amounted to a guideline for monitoring reduction of hospital inpatient admissions for this population under value based purchasing. The same approach suggested a guideline of approximately 30,000 annual adult medicine discharges, or 2500 per month for the combined hospitals.

The data in **Table 1** also demonstrated that emergency department utilization, another focus on value based purchasing programs, increased markedly in the Syracuse hospitals between 2015 and 2016. Annual emergency department visits increased by 16.6 percent, from 184,570 to 215,207, between 2011 and 2015 before stabilizing at 215,000 between 2015 and 2016. Annual ambulance transports received increased by 18.8 percent, from 57,012 to 67,774, between 2011 and 2015 before declining by 7.5 percent to 62,707 between 2015 and 2016.

These data demonstrated that, in contrast to adult medicine admissions/discharges, emergency department utilization in the combined Syracuse hospitals increased for most of the period between 2011 and 2015. This indicator began to stabilize or decline only within the past two years. For case management purposes, the levels between 2015 and 2016 will be monitored to determine whether value based purchasing causes the recent reductions to be sustained.

The second component of the study focused on adult medical-surgical readmissions in the Syracuse hospitals between 2012 and 2016. Related data are summarized in **Table 2**.

Table 2. Potentially preventable readmissions within 30 days, adult medical/surgical patients—all payors, Syracuse Hospitals, January 2012-September 2016.

	January- December 2012	January- December 2013	January- December 2014	January- December 2015	January- September 2016
Number of Readmissions	4129	4154	4020	4000	3066
At Risk Population	48,248	51,354	51,990	53,012	40,867
Readmission Rate	8.56	8.09	7.73	7.55	7.50

Data exclude obstetrics, pediatrics, psychiatry, alcohol/substance abuse treatment, rehabilitation, and all patients aged 0 - 17 years.

The reduction of inpatient hospital readmissions has been a challenge for hospitals in Syracuse and elsewhere because many of these patients require services that are not available outside hospitals in the community. Reduction of these readmissions will be an objective under value based purchasing.

The data in **Table 2** indicated that the adult medical-surgical readmission rate for the Syracuse hospitals declined by 11.8 percent between 2012 and 2015, while the annual number of readmissions declined by 3.1 percent. Most of the reduction in the rate occurred as the total at risk population increased, rather than as a result of a decline in the original readmission population.

These data suggested that the nursing case management programs in the Syracuse hospitals were able to support declines in the readmission rate addressing additional adult medical-surgical patients in the community. This impact was produced through increased coordination with ambulatory care and long term care services. The impact was limited by the extent of alternative services available for patients who need rehospitalization in the community.

The third component of the study focused on the development of Subacute and Complex Care Programs by nursing case management to reduce inpatient lengths of stay for inpatient lengths of stay for adult medicine and adult surgery in the Syracuse hospitals. Related data are summarized in **Table 3**.

In the Syracuse hospitals, inpatient stays have been an indicator of the impact of nursing case management for a number of years. As in the case of adult medicine admissions/discharges, this impact has been complicated by the movement of adult medicine patients to observation status.

Between 2008 and 2016, inpatient lengths of stay in the Syracuse hospitals were impacted by the implementation of Subacute and Complex Care Programs developed by nursing case managers. These programs were created to address the needs of patients with the longest stays, those requiring long term acute care services for multiple intravenous antibiotics, extended wound care, dialysis, and other services. These services demonstrated the ability of nursing case management to address community needs by creating new services, as well as by coordinating care.

The data in **Table 3** demonstrated that adult medicine inpatient stays in the combined hospitals increased by 6.0 percent, from 5.14 to 5.45 days, between

Table 3. Inpatient mean lengths of stay, adult medicine and adult surgery, Syracuse Hospitals, 2008, 2010, 2012, 2014, 2016.

	2008	2010	2012	2014	2016*
Adult Medicine					
Number of Discharges	28,565	32,221	35,274	33,421	30,876
Mean Length of Stay	4.98	5.18	5.14	5.45	5.07
Excess Patient Days	8,569.50	10,955.14	4,938.36	8,355.25	2,778.84
Adult Surgery					
Number of Discharges	19,241	19,170	20,439	20,562	20,792
Mean Length of Stay	6.23	6.25	6.04	6.04	5.86
Excess Patient Days	11,544.60	6,901.20	5,927.31	1,850.58	-4,158.40
Long Term Care and Subacute Program Patients	185	166	104	139	81

*2016 length of stay data annualized based January - October 2016 actual experience.

Adult medicine data exclude Diagnosis Related Groups concerning surgery, obstetrics, pediatrics, psychiatry, alcohol/substance abuse treatment, rehabilitation, and all patients aged 0 - 17 years.

Adult surgery data exclude Diagnosis Related Groups concerning medicine, obstetrics, pediatrics, psychiatry, alcohol/substance abuse treatment, and all patients aged 0 - 17 years.

2012 and 2014, the period when the medical observation regulations were implemented, before declining to 5.07 days in 2016. This impact was supported by the decline in adult medicine discharges that occurred between 2012 and 2014.

Between 2008 and 2016, adult surgery inpatient stays declined by 5.9 percent, from 6.23 to 5.86 days, in the combined hospitals as admissions/discharges for this service continued to increase. The negative number of excess days for 2016 was produced by a hospital stay that was shorter than the severity adjusted national average.

This contrast demonstrated the impact of changes in the inpatient medicine population. The shift of some adult medicine admissions to observation status caused the inpatient length of stay for remaining inpatients to increase between 2012 and 2014. Inpatient stays for adult surgery, which were not impacted by the shift, continued to decline.

The fourth component of the study involved a summary analysis of the costs and benefits of nursing case management related to reduction of hospital admissions/discharges in the combined Syracuse hospitals. Related data are summarized in **Table 4**.

These cost and benefit data were developed based on summary assumptions concerning the 4,100 annual adult medicine Minor severity of illness patients for all payers in the Syracuse hospitals identified in **Table 1**. The numbers of these patients were based on conservative estimates of proportions of these patients,

Table 4. Estimated costs and benefits, reducing Minor severity of illness admissions/discharges, Syracuse Hospitals.

	Percent Reduction in Minor Severity of Illness Admissions			
	2%	5%	10%	15%
Number of Admissions	82	206	411	617
Case Management Time (Hours)	984	2,472	4,932	7,404
Case Management Expenses	\$49,200	\$123,600	\$246,600	\$370,200
Home Care/Medication Expenses	\$205,000	\$515,000	\$1,027,500	\$1,542,500
Total Expenses	\$254,200	\$638,600	\$1,274,100	\$1,912,700
Hospital Costs Avoided	\$328,000	\$824,000	\$1,644,000	\$2,468,000
Difference	\$73,800	\$185,400	\$369,900	\$555,300

for whom hospitalization could be avoided, ranging from 2 percent to 15 percent. This amounted to between 82 and 617 patients.

The cost data suggested that, at 12 hours of case management at \$50 per hour, these expenses would range from \$49,200 for 2 percent of the population to \$370,200 for 15 percent of the population. Based on costs of home care and medications estimated at \$2500 per patient, the data suggested expenses ranging from \$205,000 for 2 percent of the population to \$1,542,500 for 15 percent of the population. This amounted to a range in expenses from \$254,200 to \$1,912,700.

The benefits of avoiding these hospital admissions at \$4000 per patient ranged from \$328,000 for 2 percent of the population to \$2,468,000 for 15 percent of the population. Including the expenses for alternative services, this produced an estimated savings from \$73,800 to \$555,300.

5. Discussion

The implementation of the Medicare Access and Chip Reauthorization Act (MACRA) promises to bring major changes to the delivery of health care in communities throughout the United States. By providing incentives for making more judicious use of services across the continuum, it will result in fewer hospital admissions, readmissions, and emergency department visits.

Historically, Medicare has provided leadership on the implementation of programs to improve the efficiency of health care utilization, such as hospital reimbursement by discharges in the 1980s. This experience suggests that the impact of MACRA will be extended through other payers such as the DSRIP program for Medicaid in New York State and the Blue Cross Blue Shield ACQA program.

At the community level, these developments will amount to a renewal of interest in managed care. The traditional version of this mechanism included direct involvement for payers. The current version will involve more direction and activity by providers.

These developments suggest that nursing case management should be used as an important mechanism to implement value based purchasing through the coordination of health care services at the community level. Working in support

of primary and ambulatory care, case managers can extend their roles beyond hospitals and long term care to address utilization and outcomes throughout local health care systems. These roles will be necessary for physician practices and allied health providers, as well as hospitals, home health agencies, and nursing homes to meet the clinical and financial objectives of value based purchasing.

This study provided examples of how nursing case managers in the metropolitan area of Syracuse, New York, a small community with a population of about 600,000 will be addressing the impact of MACRA and related programs. It suggested that these activities will include monitoring of important utilization indicators, as well as development of additional services. It also suggested that these activities should go beyond coordination of existing services.

The data in this study identified baseline levels in the Syracuse hospitals for case management under value based purchasing utilization indicators including hospital admissions/discharges, emergency department visits, and hospital readmissions. Each of these had a different context. Adult medicine discharges stabilized after the impact of the medical observation regulations was absorbed. Emergency department visits stabilized after a lengthy period of increases. Adult medicine and adult surgery readmissions have declined at a gradual rate. Using these types of data for major value based indicators, nursing case managers should be able to implement approaches to produce additional efficiencies.

The experiences of the Syracuse hospitals suggest that one approach to these efficiencies can be the development of new levels of care similar to the Subacute and Complex Care Programs. These initiatives grew out of the experiences of nursing case managers related to length of stay reduction. They involved the development of new services for long term acute care. They could also be applied to ambulatory care patients in order to avoid hospital admissions and emergency department visits. They could also be employed to reduce inpatient readmissions with nursing home alternatives.

The study also indicated that the use of case management to reduce utilization of expensive services, such as hospital admissions, can generate financial benefits for health care payers. Estimating the amounts of these benefits requires identification of the costs of case management and the alternative services it employs.

This information demonstrates that the advent of MACRA and other value based purchasing programs will provide important opportunities for health planning and development at the community level. They suggest that nursing case management can be a major tool to address these needs.

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Shareholding Networks for Care in Rural Thailand: Experiences of Older Persons and Their Family Members

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Abstract

Most members of the older population in Thailand live in rural areas while their children live in cities. With the joint family system separated, elderly Thai persons often have to care for themselves, and opportunities for them to get involved in community care remain limited. In response, the aim of this study was to describe older persons' and their family members' experiences with shareholding networks for the care of older people in rural Thailand. Paired interviews with five older persons and five of their family members were conducted, and collected data were subjected to content analysis, which yielded results organized around two themes: older persons' outsider status and disregard for older persons' individuality. Whereas the theme of outsider status describes shortcomings in healthcare encounters, the theme of disregard for individuality describes the lack of engagement of authorities and caregivers in older persons' care. In that sense, the concept of participation emerged as a framework for understanding interviewees' experiences. Given findings from local authorities, older individuals and their family members should engage in dialogue in order to support healthcare based on shared understanding.

Keywords

Community Healthcare, Content Analysis, Older Persons, Participation

1. Introduction

The expansion of older and aging populations represents a major global demo-

graphic trend [1], and Thailand is no exception. Thai seniors older than 60 years account for more than 16.7% of the national population and total approximately 10.92 million in number. Moreover, as estimations suggest, those figures will double in the next decade [2]. Most older Thai people live in rural areas, while their children live in cities, and with the joint family system separate, elderly often have to care for themselves. In general, Thailand's changing population structure has not only introduced numerous problems for healthcare in aging communities [3], but also threatened the marginalization of older people in society [4] and their health outcomes [5].

Despite national policy addressing the aging Thai population [6], no policy has yet afforded preparations of care for older people in their communities. As such, community networks of older people, their families, caregivers, and organizations have begun to play critical roles in spearheading and sustaining work processes associated with community-based healthcare for older people [7]. Individual engagement and networks have shown improvement in terms of caring for the health of the older population [8], and as Nuño *et al.* [9] have pointed out, shareholding networks in such care as perceived by older persons and family members in rural areas could be enhanced if the networks more clearly implemented the philosophy of innovative care for chronic conditions (ICCC). According to that philosophy, high-quality integrated care should be based on the most advanced evidence in order to improve care not only for those with chronic conditions, but for all [10] [11].

Older persons who receive community-based healthcare are often considered to need more assistance than those allotted by other forms of community care, which risks the activation of associated power differentials [12]. Such thinking relates closely to *ageism* [13], defined as a prejudice that, unlike other forms, affects all individuals once they reach an age at which they remind younger people of their own future aging and inevitable death [14]. Ageism threatens older individuals' dignity—that is, their moral value closely connected with their integrity and autonomy. As an antidote, it is vital to let older people's voices be heard. Among other authors, Helgesen *et al.* [15] have stated that knowing patients is a crucial prerequisite for identifying the optimal level of participation for caretakers. Unsurprisingly, family members play important roles in transferring information and knowledge about older persons to healthcare authorities, and studies have even found that the importance of family in that capacity increases as older persons' functioning decreases or as their diseases progress [16] [17].

Despite the need for both individual and general knowledge about aging persons, no studies have addressed the experiences of shareholding networks for older persons' care in rural communities. However, capturing such knowledge could facilitate older persons' improved participation and increase their involvement in communal healthcare—opportunities that to date remain rather limited. By letting older persons and their family members narrate stories about their experiences with community healthcare, it is possible to glean a deeper understanding of the care that they receive and, in turn, improve the quality of

their daily lives. Accordingly, the aim of this study was to describe older persons' and their family members' experiences in shareholding networks for the care of older people in rural areas.

2. Method and Design

Drawing upon conventions of qualitative research, this study gathered and interpreted persons' subjective experiences. The qualitative approach allowed the capture of nuances, details, and reflections undetectable by quantitative methods [18] [19].

2.1. Participants and Context

Following Malterud *et al.*'s [20] discussion of sample size and information power in qualitative studies, five older persons and five family members ($n = 10$) participated in this study. A convenient sample was recruited depending on willingness and on each person's cognitive appropriateness. Nurses in home nursing care were informed about the study. Both verbal and written information were provided. These nurses judged whether each older person's health status permitted participation. Persons who wished to participate send their consent directly to the researcher. The researcher then contacted the participant and practical arrangements were agreed upon. We included relatives were included if they lived with or considered themselves as close to selected older person. All eligible participants were given verbal and written information about the purpose and procedure of the study, and all were aged no less than 60 years, resided in a rural community in central Thailand, had at least 12 months of experience with shareholding networks, and could fully understand the purpose and content of the study. The sample of older persons was composed of two older women, both of whom were mothers, and three older men, two of whom were fathers; all were aged 67 - 79 years (median = 74 years). Meanwhile, the sample of family members ($n = 5$) consisted of five women—one wife and four daughters—aged 37 - 67 years (median = 49 years).

The study was conducted in a rural subdistrict in central Thailand with a senior population of 927, or approximately 48 older people per km², which had increased from 10% of the total population in 2010 to nearly 15% by 2015. The average income in the subdistrict where the study was conducted is approximately 8000 baht per month (210 EUR) and agricultural production is still high and the sector is important for employment. In the subdistrict, two primary government agencies provide healthcare services: local administrative organizations (LAOs), which provide basic healthcare services for older people in line with the government policy prescribed by health promotion hospitals (HPHs), which provide health promotion, prevention, treatment, and recovery services based on the criteria of the Ministry of Public Health.

2.2. Data Collection

The first author conducted paired interviews from May to October 2015. Initial-

ly interviewees were asked to speak openly about their own or their relative's daily life. As their stories unfolded, more targeted questions:

- What do you think is important for older people's care in the community?
- What are some experiences that you have had with your care as an older person?
- What are some examples of health policy for older people's care in the area?
- How have community resources adequately helped to address needs identified by healthcare organizations in the community?
- Would you describe healthcare system methods for exchanging information and facilitating interactions in the community?

The interviews occurred in the participant's home. During interviews, the interviewer asked clarifying questions to support understanding or encourage interviewees to develop their responses. The first author conducted and audio taped all interviews, which lasted 60 - 80 min, and transcribed them verbatim. All interviews were performed in Thai. The first author also translated the transcripts from Thai to English. The second author checked the translation and confirmed that the meaning was kept throughout the process. The language in this article is assured quality by professional editing.

2.3. Data Analysis

Transcribed interviews were subjected to thematic content analysis in compliance with Downe-Wamboldt's [21] protocol. Analysis began with several complete readings of the transcripts in order to gain a sense of their content, after which material responding to the aims of the study was identified, extracted, condensed, and coded. Coded meaning units were sorted and categorized based on similarities and differences in content over the course of several stages, all with constant reference to the original text in order to prevent the loss of aspects of the content. Primary analysis was performed by the first author, although all authors read the material as a means to reflect and discuss findings together. Analyses resulted in four categories grouped within two themes.

2.4. Ethical Considerations

The study followed the ethical principles of the Helsinki Declaration [22]. All participants were informed about the study and assured that their participation was voluntary and that they could withdraw from the study at any time. All participants gave their informed consent and were guaranteed confidentiality with an anonymous presentation of the findings. The research was approved by Thailand's Ethical Review Committee for Research with Human Subjects (IRB: SP 0032.002/4/3.1/2015).

3. Results

The aim of the study was to describe older persons' and their family members' experiences with shareholding networks dedicated to the care of older people in rural areas. Themes and categories are presented in what follows and illustrated

by quotations from the interviews. An overview of themes and categories is presented in **Table 1**. Quotations refer to respective paired interviews.

3.1. Older Persons' Outsider Status

3.1.1. Lack of Engagement and Interest

Interviewees highlighted experiences involving difficulty with participating in older people's care, which they considered to threaten their dignity. Such situations involved conditions in which healthcare personnel showed no concern for interviewees' opinions:

The LAO programs for providing health services to older people is a program planned by the government. Maybe they have gotten new ideas for the program from the community, but senior citizens have little chance to express their opinions [older persons' experience of own care have no or little impact on program development of older persons' care]. (P3)

Living in a rural area demands engagement from healthcare; however, professionals too often assume that older persons can manage, for example, to get to activities by themselves, even when activities are far from home and no busses or relatives are available to transport them. Interviewees also described healthcare workers' lack of involvement in their personal health, which they considered a risk for and obstacle to positive healthcare encounters, including those intended to ensure ongoing care and future contact with healthcare workers. One interviewee even stated that

They [Healthcare workers] always say that they don't have time to participate. (P2)

Interviewees also reported that they received insufficient attention from others in the community and could not give voice to their ideas concerning elderly policies in their community. They generally added that the problem related to widespread disinterest among team members in subdistrict organizations regarding older peoples' social roles. They moreover emphasized that health service activities should grow out of older persons' experiences, not those of the government, which was a tendency that frustrated interviewees and left them unsatisfied. As one interviewee suggested in response,

It would be great if there were a place or way for older persons and their families to express their opinions about policies. (P5)

Interviewees additionally stressed that they never had been invited to partici-

Table 1. Overview of themes and categories constructed from paired interviews.

Themes	Categories
Older persons' outsider status	Lack of engagement and interest Lack of resources
Disregard for older persons' individuality	Lack of responsibility Lack of communication

pate in community elderly care policies, yet nevertheless claimed that it was important for LAOs and community committees to recognize the values of older people and their family members' roles.

3.1.2. Lack of Resources

Interviewees highlighted older persons' need for supportive resources from community organizations in rural areas and stressed that older persons' self-care activities often were based on their economic situations. As one relative said:

Mouths and bellies have to come first. If we were to join in activities, then we'd have to stop working. That would cost us 300 Bath [approximately 8 Euro] a day. (P2)

Along with their economic situations, other aspects of the necessity of self-care were identified, including lack of knowledge and education about basic elements of healthcare—for example, blood pressure control:

I'm old, and I'm afraid to tell them [healthcare workers]. The people working in LAOs and HPHs have knowledge. They have studied a lot more than me. (P5)

The lack of resources moreover seems to create additional distance between older persons and their relatives, on the one hand, and between them and their communities on the other hand. As interviewees pointed out, that circumstance could further frustrate relatives and put them in impossible situations:

Relatives have to work. It's already dark when they get home. Sometimes it's like they're not interested in taking care of their elders. (P4)

3.2. Disregard for Older Persons' Individuality

3.2.1. Lack of Responsibility

According to interviewees, the causes of problems expressed generally relate to insufficient responsibility taken by staff in community care organizations. As they put it, LAOs and HPHs had failed to recognize their needs and, in turn, to manage the provision of healthcare services. As an antidote, they recommended that

Staff working in LAOs should create new healthcare services specifically for older persons in the area. (P1)

Interviewees moreover complained about the distance between them and the community organizations, as well as about the inappropriateness of routine work:

Staff do routine work only to meet their organization's criteria. (P3)

3.2.2. Lack of Communication

Interviewees discussed the lack of opportunities to have their voices heard and thereby actively participate in the care policy and services of their communities. They added in particular that LAOs' communication did not meet requirements

or their needs as customers:

The government keeps to itself. It tells us to do what it wants... but it never asks what type of healthcare we need. Our older persons are different. For example, some bed-bound older persons have no interest in performing any activities, unlike our group members, who do everything to the fullest when we are told to. (P1)

It seems as though the lack of communication between officials and families had resulted in the stagnation of program content, which risked entrenching a sense of boredom and monotony:

The LAO programs for providing health services to older persons is a conventional program planned by the government. The programs are the same and without change for older persons in the area... The LAO takes care of senior citizens every year, but it's the same old program every year. When one year is up... There are no changes in the program. (P1)

Interviewees stressed that the best way for the government to present information was to ask questions, such as about what older persons want or what problems they have. In short, they stressed the importance of referring to older persons' needs when changing strategies or integrating LAO or HPH policies:

Planning activities and projects to care for the health of older persons in our community should be integrated with LAO and HPH work plans with a representative older person who participates by offering opinions during planning. (P4)

4. Discussion

This study focused on older persons' and their family members' experiences with being part of shareholding networks for the care of older people in rural areas in Thailand. Since the study took place in one subdistrict in one province with a small sample, it is important to bear in mind that the results of the study cannot be generalized, but should be seen as another argument in an ongoing discourse [23]. Nevertheless, the context can be conceived as a frame that represents how older persons and their family members experience healthcare services given by primary government agencies on a larger spectrum. The results show that the chief reasons for shortcomings in healthcare encounters, according to the interviewees, caused experiences of feeling barred and, in turn, a sense of having outsider status in their own communities. Interviewees stated that problematic experiences involved a lack of engagement, interest, resources, responsibility, and communication barriers among local administrative organizations and subdistrict health promotion hospitals regarding older persons' situations. In response, interviewees considered it to be important to be allowed to participate when the government plans care offerings and services.

Problems voiced by interviewees concerning cooperative networking for healthcare for older persons in the community were consistent with those re-

ported by [24], who stated that power differentials between elderly persons and staff offering care for the elderly were a common reality that negatively influences elderly persons' independence and autonomy. Doyle [24] argued, with reference to Levy [13], that the problems connote ageism based in stereotypes of older individuals and aging. Since such assumptions by healthcare worker scan often prompt inferior therapeutic goals and reduce the quality of care given, it is critical to encourage an ethos in healthcare services for older people that prioritizes protecting human dignity [25]. According to Edlund [26], dignity and self-esteem are closely linked, and healthcare personnel should respect not only older persons' dignity, but also their role in giving dignity-supporting care [27].

The findings furthermore indicate that interviewees experienced receiving insufficient attention from others in the community and a lack of opportunities to express their ideas about elderly care policies in their communities. It seems as though elderly care policies in the community addressed have been built by following a top-down approach, which has led to a lower level of participation instead of an objective to promote older persons' and their families' participation in community activities. In that sense, the benefits of using the community participatory process in providing healthcare to community populations include developing healthcare policies for older people toward ensuring a process that gives opportunities to the target group to participate in solving their own health problems [10].

Interviewees also described their lack of resources essential for self-care activities. Based on our findings, it seems that involvement from local and regional authorities in the matter is invaluable. Of course, authorities need to be involved throughout the process, from planning to evaluation [28], yet they should also work closely with representatives of older people's groups in setting policy in the community [29]. In addition to this structural matter, older people and their families need practical support in the forms of help and knowledge with basic aspects of healthcare, including the control of blood pressure and blood glucose levels. Self-management and social support toward managing personal health are essential self-care activities that the World Health Organization stresses as important components to allow older people to care for themselves [10] [30].

Another important factor described by interviewees was their experiences with a shortage of financial support. Activities require funding to cover expenses, and economic support for projects is important in performing current work and making preparations for the future when building self-management programs for older people [31]. That LAOs and HPHs in Thailand receive partial financial support from the government demonstrates that the aforementioned projects are within the government's purview. Local authorities are an important resource for improving the development of services for older people that offer added community value. As such, all local authorities should develop a local asset strategy that sets out to involve older people in developing programs that facilitate their well-being and to encourage and promote the sustainable development of care services for older persons. Our findings highlight the need for

more positive and imaginative government thinking and support in offering older persons community care that enhances well-being characterized by better mental and physical health and reduced dependence—that is, being in control, retaining independence, and feeling secure.

The findings also indicate that another problem encountered in older persons' experiences with healthcare is their and their families' sense of a disregard for their individuality. Older people and their family members sense a lack of responsibility among local authorities that has detrimentally influenced the quality and safety of healthcare services provided, particularly given the lack of consideration of them as unique individuals and stakeholders. To improve the care of older people, resources need to be developed not only by focusing on work with existing sources of care, but by also extending the rights of older people at least to include an assessment of needs and an equitable meeting of those needs with care services available [32].

Insufficient communication between local authorities and older people seems to be yet another problem. As our study indicates, older people and their families engage in inadequate, if any, communication with public employees working to provide healthcare for them and with others involved in the community. According to Lavoie *et al.* [33], people, especially healthcare professionals, are responsible for other people and therefore need to be attentive and focused on each individual person's specific needs. It is reasonable to assume that the LAO staff's unwillingness to listen to older people and their family members is due to the absence of channels for proper communication. That inference is in line with Olsen *et al.*'s [34] findings that an absence of place and channels for communication prompt routine-based work. An essential healthcare strategy should thus be to counteract that absence [35], which agrees with Martinsen's [36] argument that receptivity means that healthcare workers are present not only as interpreters of situations, but also as receivers of patients' concerns. As such, it is crucial to respond to each patient as a unique individual in order to provide effective healthcare [37] [34]. In that light, our findings address fundamental structures and values built into healthcare practices. According to Devik *et al.* [38], there is a great need to focus attention on the emotional dimension and how it influences healthcare and not only to focus on knowledge-based analyses of situations.

This study has revealed that the phenomenon of participation should be grounded in the idea of being master of one's own life, which is essential to all humans and important for the self-esteem and dignity of older people and their family members in particular. By extension, older people's and their family members' involvement in community healthcare can be understood according to the concept of participation. Local participation may be regarded as natural in community development approaches, both as a necessary condition for change and in terms of the values of empowerment and partnership [39]. According to Wakefield and Poland [40], there is a danger of non-reflexive practice in such participation approaches, however. Instead, another way to understand partici-

pation is to highlight the social and psychological dimensions of healthcare as they relate to identity [41] and place [42]. At the same time, the phenomenon of participation might also be philosophically grounded in the idea of being master of one's own life, which is stressed as being essential to all human beings and, in our study, important for the self-esteem and dignity of older individuals in community care.

To protect older persons' self-esteem and dignity, the level of participation has to be adjusted to the individual's abilities at the particular time. From such a point of view, our findings can be understood in the light of Buber's [43] argument, which states that every human requires significance—that is, being placed in another's world. The findings indicate that one meaning of meeting an older person is that both parties occasionally participate in one another's lives and not only psychologically. According to Buber [43], recognizing the other's expressions is a manifest reality of the inter human dynamic. On such occasions, each actor turns to each other in order to communicate person-to-person.

Limitations and Strengths

A major strength of this study was paired interviews with older persons and family members, which functioned as springboards for more open discussions and was effectively uncovered older persons' experiences with healthcare. Furthermore, analyses were conducted jointly and reviewed independently by all authors, which added rigor to the study, and preliminary results were presented to interviewees to ensure rigor and ensure the credibility of data, as consistent with Lincoln and Gruba's [44] recommendation. However, because this qualitative study took place in a single subdistrict in only one province of Thailand with a limited number of participants, it is difficult to generalise the findings beyond the local context.

5. Conclusion

This paper has discussed the experiences of care for older people in rural areas in Thailand as perceived by them and their family members. The context can be conceived as a frame that represents how older persons and their family members experience healthcare services given by primary government agencies on a large scale. The results show that the chief reasons for shortcomings in healthcare encounters, according to the interviewees, caused experiences of feeling barred and, in turn, a sense of having outsider status in their own communities. Interviewees stated that problematic experiences involved a lack of engagement, interest, resources, responsibility, and communication barriers among local administrative organizations and subdistrict health promotion hospitals regarding older persons' situations. Furthermore, authorities should afford opportunities to hear out older persons' concerns when planning care offerings and services. It is therefore necessary to reflect on the concept of participation as a frame for understanding the experiences of interviewees in this study. On the basis of our findings, we suggest that local authorities and older individuals and family

members engage in dialogue as part of a vital approach for healthcare based on shared understanding.

Relevance to Clinical Practice

Every old person is unique and should be offered positive healthcare encounters with good nursing care based on his or her personal experiences. Old persons therefore need to be met with understanding, presence, and engagement in their relationships with healthcare workers.

Conflict of Interest

The authors have no conflicts of interest to declare.

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