

First year learner nurses' perceptions of learning motivation in self-directed learning in a simulated skills laboratory at a higher education institution

S. M. Mulube*

e-mail: 2828386@uwc.ac.za

K. Jooste*

e-mail: kjooste@uwc.ac.za

*School of Nursing

University of the Western Cape

Bellville, South Africa

Abstract

Employing self-directed learning (SDL) methodologies, that are associated with improvement in the affective and psychomotor domains, could be advantageous to learner nurses. Despite the efforts to expose students to SDL in a school of nursing in the Western Cape, South Africa, the challenge remains the students' lack of self-motivation to SDL during clinical activities in the simulated skills laboratory. This article focuses on first year learner nurses' perceptions of learning motivation (as part of a larger study) in SDL activities in a skills laboratory. An exploratory descriptive quantitative design was used. A sample of 168 respondents was selected through simple random sampling. A self-administered 5-point Likert scale questionnaire was developed. The data was gathered and then analysed by using the Statistical Package for the Social Sciences (SPSS) Version 21 software. Descriptive statistics were used to present the findings. It was found that learner nurses were self-motivated to learn with some challenges during the implementation of SDL.

Keywords: self-directed learning, motivation, skills laboratory, learner nurses, teaching

INTRODUCTION

Safety issues and less bedside teaching have increasingly placed heavy pressure on the decreasing autonomy of trainees in the clinical context, thus self-directed learning (SDL) opportunities for trainers in the non-clinical context are becoming more important (Kennedy, Lingard, Baker, Kitchen and Regehr 2007, 1084). The introduction of training paradigms that utilise simulation and independent practice are viable in the health profession and further allow learners initially to practise on models rather than patients; hence assisting them to enhance patients' comfort and safety (Brydges, Carnahan, Safir and Dubrowski 2009, 507). In line with the previous statement, the move from traditional skills training of bedside teaching to innovative skills development methods has been implemented at a school of nursing

at a university in the Western Cape, South Africa, while considering its context, teaching and learning strategies, and philosophy.

The effective use of a clinical skills laboratory, particularly the SDL component by the learners, ensures that competent graduates are yielded who are able to deliver satisfactory care to the health consumers while being lifelong learners. Wellard, Woolf and Gleeson (2007) suggest that innovative ways of teaching in an SDL clinical skills laboratory be promoted, with the teacher playing a facilitator role and the learner nurse taking an active role in identifying the learning needs and relevant resources, as well as engaging in the process of learning. The Nursing Act 2005 (No 33 of 2005) defines a learner nurse as a person undergoing education or training in nursing who has been registered with the South African Nursing Council (McQuoid-Mason and Dada 2011, 168). In this study, the term learner nurse will be used synonymously with student nurse.

SDL has recently become a focus due to the increased complexity of and developmental changes in the nursing profession (Safavi, Shooshtari, Mahmoodi and Yarmohammadian 2010, 27). According to Knowles (1975, 18), SDL has been described as the process whereby learners initiate, with or without the assistance of other people, the recognition of their learning needs; formulation of their learning goals; identification of the human and material resources for learning; choice and implementation of appropriate learning strategies; and the evaluation of learning outcomes. Bastable (2008) asserts that in this constantly changing environment, SDL is important for enabling learners to develop independent learning skills, and a sense of responsibility and assertiveness that are essential qualities for the nurses' career. The suggested expectations can only be achieved once students become self-directed learners.

An educational programme that utilises SDL methodologies has been described in various health professions, such as medicine, nursing, and non-medical disciplines, for example information systems (Goede 2012, 1059). Employing SDL methodologies has been advantageous for the learners. Murad, Coto-Yglesias, Varkey, Prokop and Murad (2010, 1057) reveal that SDL is associated with moderate improvement in knowledge. They also suggest that it could be effective in improving the affective and psychomotor domains. Similarly, Brydges et al (2009, 507) illustrate that SDL clinical technical skills increase greater skills retention.

Despite the advantages that SDL has on the learners' learning process, some learners lack motivation when using SDL as a teaching and learning strategy, and some learners with low SDL readiness become more anxious when they are involved in independent projects or case studies (Li, An and Li 2010, 1205).

The term SDL has been used widely in the literature to describe various concepts in learning, such as, self-planned learning, learning projects, self-education, self-teaching, autonomous learning, independent study, and open learning. The challenge of conducting a systematic review finds an explicit definition of SDL in the literature problematic (Murad *et al* 2010, 1057). However, according to Murad *et al* (2010), SDL is defined as a process whereby individuals initiate, with or without the help

of other people, the recognition of their learning needs; formulation of learning objectives; identification of human material resources for learning; choice and implementation of appropriate learning strategies; and the evaluation of learning outcomes (Knowles 1975, 18). Despite several studies that reveal continued and elusive definitions of the nature, purpose and worthiness of SDL by the students and educators (Hewitt-Taylor 2002, 496; Pryce-Miller 2010, 21), the concept is widely used in nursing education.

However, the key components of SDL are: the educator as facilitator; identification of learning needs; development of learning objectives; identification of appropriate resources; implementation of the process; commitment to a learning contract; and evaluation of learning (Murad and Varkey 2008, 580). Therefore, SDL is not merely an expectation that students will study, read, or perform learning task but practical solutions that realistically support the students towards independent learning (Timmins 2008, 302). Due to this reason, it has been suggested that time and investment are required in this activity to realise aspirations and to reduce the burden placed on the students when expectations are placed too high (Timmins 2008, 302). Some levels of facilitation are needed, for example, teaching SDL skills and how these skills can identify learning needs.

Murad et al (2010) reveal that SDL is associated with moderate improvement in the knowledge and they further suggest that it could effectively improve the affective and psychomotor domains. This is also mentioned in the study conducted by Avdal (2012) that learner students with high SDL abilities score high in terms of the level of achievement. According to Murad et al (2010, 1057), SDL is as effective as, or better than, traditional teaching methods for the acquisition of clinical knowledge and attitudes. In the same vein, Brydges et al (2009, 507) indicate that SDL clinical technical skills increase greater skills retention. SDL has also been shown to be essential in assisting nurses to meet the challenges of current day health care. In addition, it provides acceptable levels of satisfaction to the learners while conducting feasible projects (Murad and Varkey 2008, 580; Yoo, Yoo and Lee 2009, 585).

Finkelma and Kenner (2012, 133) emphasise that SDL is important for all students nurses, since it leads to a greater ability to achieve professional lifelong learning. Being a lifelong learner would assist the individual with coping with constantly changing technology and health challenges. It is, therefore, important to understand that SDL is important for nurse educators and students alike (Li, Deng and Chen 2009, 737).

Several studies have established that SDL is viewed as a powerful motivator for learning and increases participation in classrooms; learners learn how to learn, and are empowered to reflect on their learning process (Ching Mok 2012, 403).

LEARNING MOTIVATION IN SDL

Nursing education aims to motivate learner nurses to acquire skills for offering appropriate quality health care services to patients with multiple and complex health

problems. However, meeting such an objective for a long time has been a challenge to academic institutions. It is for this reason that paying attention to the concept of learning motivation in clinical education is of great significance (Kosgeroglu, Acat, Ayranci, Ozabaci and Erkal 2009, 331). It is further suggested that an understanding of learners' motivation is the key to effective instructional designs, since variations in teaching techniques may be associated with academic motivation (Kommarraju and Karau 2008, 70; Tallent-Runnels et al 2006, 93).

According to Lee and Yuan (2010, 56), learning motivation is an inner drive that gives an individual the energy to maintain learning and achievement of goals, through objective understanding during learning activities. Schunk, Pintrich and Meece (2008) view motivation as a process that requires the students' physical and/or mental activity to be directed at attaining their goals.

Extensive literature establishes that learning motivation is associated with several benefits. A study conducted to understand the effects of learning motivation about the achievement of the vocational universities in Taiwan revealed a significant positive effect on study achievement, whether the students are intrinsically or extrinsically motivated (Lee and Yuan 2010, 56). Intrinsically motivated students possess a driving force to learn, to perform and a wish to succeed, while extrinsically motivated students perform in order to attain a desirable grade or to avoid failure (Ryan and Deci 2000, 68). According to Nilsson and Stomberg (2009, 1), nursing students are extrinsically motivated to learn in order to become nurses and their positive motivation is equally distributed throughout the entire educational experience. Nilsson and Stomberg further provide an insight that the students have different degrees of motivation during their academic training. However, in a study about self-efficacy, Walker, Greene and Mansel (2006, 1) reported that extrinsic motivation is a predictor for shallow cognitive engagement in learning tasks, while intrinsic motivation is associated with meaningful engagement. In contrast, Nilsson and Stomberg's (2008, 59) study revealed that nursing students mention intrinsic motivation factors as an explanation for their level of motivation.

Furthermore, motivation is considered to be beneficial for learning and achievement, since motivated students invest more time in their courses and this is viewed as a necessary prerequisite for adult learning (Pintrich and Schunk 2002; Wlodkowski 2008). In light of this claim, a study aimed at investigating the association between medical students' perception of their quality of life, motivation to learn, and estimated grade at the end of the year, revealed that motivation to learn is linked to the importance of academic achievement (Henning et al 2011). In the same vein, Pintrich and Zusho (2011, 731) postulate that a model based on social cognition theory shows that motivation for learning has an impact on the outcome in relation to academic achievement.

However, according to Dearnley and Mathew (2007, 377), negative attitudes towards studies explain decreased motivation and it is further noted that motivation increases with the students' age. Furthermore, a study conducted at the New Zealand University to measure the aspects of motivation and self-regulation revealed that

students with low motivation levels for studying experience more self-perceived problems in the areas of concentration, self-monitoring, using education materials, and developing time management skills than the students with high motivation levels (Henning 2007).

Wlodkowski (2008) argues that viewing human motivation as purposeful allows for the creation of effective ways to assist adults with sustaining learning and completing their learning. Therefore, in striving to enhance students' learning motivation, educators are using new technologies, such as videos, in SDL that show a positive effect on students' perception in relation to the enhancement of their learning motivation (Bravo, Amante, Simo, Enache and Fernandez 2011). Related to this finding, Abar and Loken (2010, 25) have found that the relationship between SDL and academic orientation has the potential to mediate variables in academic motivation. In the same vein, Winne and Nesbit (2010, 653) argue that the potential mediating outcome is also consistent with the reported relationship between motivation and engagement.

The findings from the aforementioned studies are relevant to the scope of the current study. They suggest that learning motivation plays a significant role in learning, since it supports the hypothesis that intrinsically and extrinsically motivated learners are likely to learn with relative ease. Therefore, they are likely to successfully achieve expected learning outcomes. In light of this hypothesis, a learner's motivation to learn may influence his/her SDL engagement in his/her clinical skills development and consequently improve his/her psychomotor and affective skills.

THEORETICAL ASSUMPTIONS

SDL is a major component of andragogy theory and is relevant to the present study because learners are expected to be self-directed in order to cope with constantly changing health care demands. Andragogy philosophy is defined as the art of helping adults to learn (Knowles 1970). The current study assumed that adults are self-directed and responsible for their own learning (Knowles 1984). It was, therefore, expected that learners would be motivated to learn; self-monitor their learning process; plan and implement strategies to meet their learning goals in the clinical skills development; and have effective interpersonal communications skills that would enable them when seeking assistance with meeting their learning goals. SDL is a process whereby individuals take the initiative with or without the help of other people to diagnose their learning needs by formulating learning objectives; identifying human material resources for learning; implementing appropriate learning strategies; and evaluating learning outcomes (Knowles 1975, 18).

In the context of the proposed study, SDL was a process with four domains when: (i) learner nurses are self-motivated to learn; (ii) self-monitoring their learning process; (iii) planning and implementing strategies to meet their goals; as well as (iv) using interpersonal communication skills to seek help with the aim of meeting their learning goals during the clinical activities in the skills laboratory with or

without help from other people. The article will report on the findings of the first domain of self-motivation to learn in SDL.

PROBLEM STATEMENT

Amongst the strategies that a school of nursing has introduced is the new skills development method adopted from international higher education partners Hoogeshool, Arnhem and Nijmegen, and the University of Maastrich (Jeggels, Traut and Kwast 2010, 51). The implementation of the method has been in existence for the past 25 years in European countries (Bokken, Van Dalen and Rethans 2006, 781).

The introduction of a clinical skills development method expected the clinical supervisors to assume facilitators' roles while guiding learners in acquiring clinical skills while learners are assuming an active role in their learning process. The current study focused on the independent practice phase when the learners are expected to be self-directed learners. During the independent practice phase, learners are exposed to the skills laboratory methods and they assume responsibility for their own learning and choose to practise independently, based on their identified learning needs. Learners may choose to use human simulated patients who provide immediate feedback after practice or by conducting an audio-visual recording of the practice session to get feedback from their peers or clinical supervisors. Alternatively, they may practise on the model that provides feedback electronically.

After having adopted an innovative clinical skills training method in 2006 from its international higher education partners, the clinical supervisors at a school of nursing in the Western Cape reported that many students are not practising independently during SDL in the skills laboratory (Jeggels et al 2010, 55). In questioning the commitment of some students' engagement during SDL activities, clinical supervisors asked students to produce evidence of independent practice prior to clinical evaluation. In addition, during monthly clinical co-ordination meetings for the lectures and clinical supervisors, complaints were raised concerning the learners' motivation towards SDL in the skills laboratory. Yet, the goal of the independent practice is to motivate learners to participate in SDL during their clinical skills development at their own pace while using a variety of methods of their own choice.

The change to teaching students by means of SDL has been found advantageous for enabling students to acquire skills for clinical practice (Murad *et al* 2010, 107). It has nevertheless been observed that a challenge exists in the students' lack of commitment towards SDL in a clinical skills laboratory at a school of nursing. They demonstrate an inability to monitor their learning process, as well as to plan and implement strategies that may assist them with achieving their goals. It is, therefore, unclear how students perceive SDL during the clinical activities in a skills laboratory at a school of nursing.

PURPOSE OF THE STUDY

The purpose of the study was to explore and describe first year learner nurses' perceptions of SDL during clinical activities in the skills laboratory at a school of nursing in the Western Cape.

RESEARCH DESIGN

An exploratory descriptive quantitative design was used in this study. Quantitative research is a formal, objective, systematic process during which numerical data are used to obtain information about the world (Burns and Grove 2009, 22). According to Burns and Grove (2009, 237), an exploratory design provides insight and increases the knowledge of the field of study while a descriptive design aims at providing a picture of situations as they naturally occur. In the context of the study, respondents' perceptions about SDL during the clinical activities in a skills laboratory were deductively explored and described and the results were presented in frequencies.

POPULATION AND SAMPLE

According to Burns and Grove (2009, 342), population refers to a specific type of individual or element who is the focus of the research. The target population was all the first year learner nurses pursuing a four-year bachelor nursing degree at a school of nursing in the Western Cape (N = 336). Simple random sampling was followed to select a sample ($n = 168$). Only students who were repeating the first year level were excluded from the study. A total of 168 questionnaires were handed out and 158 (94.0%) were returned. Out of the 158 returned questionnaires, 153 (91.0%) were fully completed and, therefore, were considered for analysis.

Method of data collection

Data collection was undertaken by using a self-administered data-collection instrument in January 2013. The questionnaire was developed on the basis of a literature study and comprised two sections. Section A consisted of the respondents' biographical and demographic information. Section B comprised of four domains (see Table 1) with 40 items to be rated on a 5-point Likert scale: (1) = strongly disagree, (2) = Disagree, (3) = Don't know, (4) = Agree, and (5) = Strongly agree. According to Burns and Grove (2009, 707), a Likert scale is a designed instrument to determine respondents' opinions or attitudes and contains a number of declarative statements about the topic with a selection scale after each statement. An open-ended question allowed respondents to explain their responses to the items. This article addresses the first 11 items under the domain of learning and self-motivation in SDL.

The researcher had an information session with respondents who were asked to complete the questionnaires in their own time and return them at an arranged date in a closed envelope. The instrument took around 20 minutes to complete.

Data analysis

The Statistical Package for Social Sciences (SPSS) Version 21 software program was used to analyse the data with the assistance of a statistician. Descriptive statistics were used to present the frequency, mean values, and standard deviation of observations. Descriptive statistics are employed to describe, summarise, organise and visually represent data in a condensed manner (Brink 2006, 171) in the format of tables. Spearman's correlation coefficient was used to determine the correlation between the four domains addressed in the instrument. In ordinal data and where the criteria for Pearson's analysis cannot be met, the Spearman Rank Order correlation coefficient test is used to identify relationships among variables (Burns and Grove 2009, 482; Pallant 2011, 128).

Reliability and validity

According to Brink (2006, 118), validity refers to the accuracy and faithfulness of scientific findings while reliability describes the consistency, stability, and repeatability of participants' results given the same initial circumstances. In ensuring content and face validity, five nursing experts in nursing education were consulted to assist with evaluation of the items in the questionnaire to determine whether they measured the targeted construct. Content validity of an instrument refers to how well it reflects the construct being measured (Burns and Grove 2009, 380). Face validity, on the other hand, means that the instrument appears to measure what it intends to measure (Brink 2010, 60). Through an extensive literature review, the researcher ensured that each item of the instrument was congruent to the objectives and the concepts used in the theoretical framework/literature.

In order to ensure the reliability of the research questionnaire, a pilot study was conducted as a trial run for the measuring instrument, since it was tested under the same conditions as the proposed study. Burns and Grove (2009, 713) describe a pilot study as a small version of a proposed study conducted to refine methodology, such as the instrument or data collection process. From the results of the pilot study ($n = 10$), the internal consistency of the questionnaire was measured with the assistance of a statistician with the purpose of computing the Cronbach's alpha coefficient of reliability. It was expected that a value closer to 0.1 would indicate that the questionnaire was highly reliable and that it could be confidently used for collecting data from the respondents. If the Cronbach's alpha was low (> 0.75), items included in the questionnaire would have to be rechecked in order to identify possible flaws and to rephrase or rewrite them.

As a result of the pilot testing, it was found that the instrument took about 20 minutes to be completed. The ten respondents who took part in the piloting of the instrument were excluded from the sampling process to participate in the major study. Furthermore, five nursing experts in Nursing Education were requested to participate in pretesting the questionnaire. Cronbach's alpha values for the four domains in the instrument suggested that the study questionnaire was reliable (see Table 1).

Table 1: Cronbach's alpha co-efficient reliability statistics

Domain	Cronbach's alpha co-efficient
Learning motivation	0.82
Self-monitoring	0.74
Planning and implementation	0.85
Interpersonal communication skills	0.72

The article will report on the one domain of learning motivation in self-directed learning in a skills laboratory at a higher education institution (HEI).

Research ethics

Respondents were treated as autonomous agents, since they were informed that their participation in the proposed study was voluntary and they had the right to withdraw from the study at any time and without any penalty (Burns and Grove 2009, 190). There were no anticipated risks of participating in the proposed study, since the respondents were protected from any form of physical or mental discomfort (McMillan and Schumacher 2006, 143). The respondents were assured that the information would only be made available to the researcher, supervisor and statistician. Any conversation between the researcher and the respondents would remain confidential. Therefore, the respondents' identities remained anonymous, since the questionnaires were required to be returned without identification details. Code numbers were assigned to the questionnaires in order to conceal the respondents' identities.

All the data gathered was only available to the researcher, supervisor and statistician and all the responses to the questionnaires would be kept in a secure place under lock and key for five years after the results had been published to ensure confidentiality.

Informed consent was obtained from the respondents after they had understood everything about the study and after all their questions were answered. Detailed information about the aims, objectives, potential benefits of the study, how data was to be collected, and voluntary participation was given to the respondents.

FINDINGS

Respondents' biographics and demographics

In the context of exploring SDL, the study respondents were predominately women (81%), while men comprised 19 per cent of the total number of respondents. It is known that the gender composition suggests that nursing seems to be a female dominated profession (Ozdemir, Akansel and Tunk 2008; Wolfenden 2011). Marginally more than half ($n = 79$; 52.9%) of the 153 (100%) respondents were younger than or at least 19 years old. On the other hand, 74 (48.4%) of the respondents were 20 years old or older. The study sample also comprised 22 (14.4%) learners who had

previously enrolled for the foundation programme and 131 (85.6%) were from a four-year programme.

Eleven questions were aimed at eliciting respondents' perceptions of their motivation towards SDL in the skills laboratory during clinical activities. These items are discussed with reference to responsibility and positivity towards learning, factors influencing learning motivation, and challenges and self-confidence towards learning.

Responsibility and positivity towards learning

Almost all ($n = 147$; 96.1%) of the respondents *agreed to strongly agreed* about the *importance of learning in the skills laboratory*, **since it enabled them to further their understanding of a procedure**. The responses were closely distributed around the mean value ($= 4.54$; $SD = 0.716$), showing respondents' positive perceptions of the importance of learning, since it further enabled their understanding of a procedure. One respondent to the open-ended question stated: '*SDL is very important because it helps us a lot as practise makes perfect.*' With a similar view, another respondent mentioned that: '*If you practise more you do it perfectly.*' This seemed to suggest that the utilisation of SDL enhanced their understanding of a procedure, as well as the perfecting of the skill. However, a minority ($n = 6$; 3.9%) of the respondents indicated that they *strongly disagreed to did not know* for the suggested item.

Billings and Halstead (2009, 210) state that students are *responsible for their own learning* in a humanistic perceptive of education. Therefore, in this item that related to respondents' **own responsibility in their learning process**, the vast majority of the respondents ($n = 148$; 96.7%) revealed a positive perception (*agree to strongly agree*). More than half of the respondents ($n = 84$; 54.9%) *strongly agreed* that they were aware of their responsibility in the learning process ($= 4.48$; $SD = 0.689$).

Brockett and Hiemestra (1991, 26) further assert that individuals' willingness or ability to take control of their learning determines the potential for self-direction. One respondent to the open-ended question stated: '*I wish we could have extended time for the SDL to improve our skills.*' Similarly, another respondent suggested that: '*They should give us more bookings, even lunch break.*' The respondents' responses might suggest a sense of responsibility for their learning processes, hence they valued having more time for SDL. With the concept of self-direction, individual learners take responsibility of their learning process, since they take initiative with or without the help of other people to diagnose their learning needs; formulate the learning objectives; identify human or material resources for learning; plan and implement the appropriate learning strategies; and evaluate the learning outcomes (Knowles, 1975, 18).

About half ($n = 81$; 51.9%) of the 153 (100%) respondents *strongly agreed* that **they loved to learn about new clinical nursing skills**. The majority ($n = 144$; 93.1%) of the respondents *agreed to strongly agreed* with their affection to

learn about clinical nursing skills ($= 4.44$; $SD = 0.724$). One respondent to the open-ended question stated: *'SDL is good and am learning a lot but I wish when doing procedure we are supervised.'* Another respondent indicated that: *'Supervisors should check on us during SDL.'* Owing to positive perceptions of SDL, respondents suggested the need for supervision by faculty to assist the learning process.

Respondents related to *finding learning interesting*, since it enabled new ways of looking at the world of nursing, and the vast majority ($n = 144$; 94.1%) of the respondents *agreed to strongly agreed*. More than half ($n = 83$; 54.2%) of the respondents *strongly agreed* with finding learning interesting with a narrow distribution of responses around the mean value ($= 4.44$; $SD = 0.759$). One respondent to the open-ended question stated: *'SDL helps me to understand more the theory of nursing [fundamentals of nursing].'* Neophytes might have different views about what nursing entailed. It was encouraging to note that SDL enabled the bridging of the theory-practice gap as mentioned by a respondent to an open-ended question.

Similarly to the preceding item, the majority ($n = 143$; 93.5%) of the 153 (100%) respondents *agreed to strongly agreed* with enjoying *gaining skills in caring* for patients. More than one third ($n = 61$; 39.9%) of the respondents *agreed* with enjoying gaining skills in caring for patients ($= 4.43$; $SD = 0.759$). In response to the open-ended question, a respondent stated that: *'I wish the bookings were not so full for SDL.'* While another respondent wrote: *'Bookings are difficult as there are many of us.'* These responses might suggest that respondents were enjoying gaining skills in caring for patients; however, SDL as a method to support that process was challenged in relation to adequate time and space for students to practise the clinical skills.

Factors influencing learning motivation

Learning motivation has a significant positive effect on learning achievement, whether the students are either intrinsically or extrinsically motivated (Lee and Yuan 2010, 56). This item interrogated whether **students' success in the programme inspired them to continue learning**. The majority ($n = 136$; 88.9%) of the 153 (100%) respondents *agreed to strongly agreed* in their responses. On the other hand, 17 (11.1%) of the respondents *strongly disagreed to did not know* that success inspired them to continue learning ($= 4.36$; $SD = 0.878$).

Less than half ($n = 69$; 45.1%) of the 153 (100%) respondents *agreed* that they *learned the clinical skills to avoid failure*, and their responses showed a normal distribution around the mean value ($= 4.20$; $SD = 0.974$). The vast majority ($n = 130$; 85%) of the respondents *agreed to strongly agreed* that they learned clinical skills to avoid failure. One respondent to the open-ended question stated: *'SDL is really nice. It prepares me for the evaluation with [sic] my supervisors.'*

More than half ($n = 88$; 57.5%) of the 153 (100%) respondents *agreed to having curious minds* in learning new things in the skills laboratory ($= 3.95$; $SD = .841$).

More than three quarters ($n = 123$; 80.4%) of the respondents *agreed* to *strongly agreed* that their curious minds encouraged them learn about different things in the skills laboratory that were new. According to Knowles (1990), adult learners' motivation is internal and it arises from their curiosity. Based on the respondents' answers and assumptions of adult leaning, the researcher concluded that a strong desire to learn motivated learners towards SDL. Some respondents to the open-ended question stated: *'When I go to fill my name for a procedure, it is always full.'* In the same vein, another respondent mentioned that: *'For me, they must make more time for the 1st years in the lab.'* It seemed learners desired more time in the laboratory to learn new skills.

Three quarters ($n = 116$; 75.8%) of the 153 (100%) respondents *agreed* to *strongly agreed* about their *persistence in learning* the clinical skills they did not possess ($= 3.92$; $SD = 0.858$). However 24.2 per cent ($n = 37$) of the respondents *strongly disagreed* to *did not know* how to persist in learning if they did not possess the clinical skills. Lee and Yuan (2010, 56) indicate that learning motivation is an inner drive of an individual, through objective understanding during learning activities, that provides the energy for maintaining learning and achieving goals. It is, therefore, expected that motivated learners would persevere in ensuring that their learning objectives are achieved.

Challenges and self-confidence towards learning

Slightly more than two thirds ($n = 107$; 69.9%) of the 153 (100%) respondents *agreed* to *strongly agreed* about *viewing problems as challenges, not obstacles*. Slightly more than one third ($n = 58$; 37.9%) of the respondents *agreed* that they regarded problems as challenges and not as obstacles. On the other hand, almost one third ($n = 46$; 30.1%) of the respondents *strongly disagreed* to *did not know* about their view of problems as challenges, not obstacles. This item had the widest distribution of responses around the mean value ($= 3.91$; $SD = 0.982$) of all the items about motivation of learning. One respondent to the open-ended question stated that: *'The lecture also gives us additional experiences that they had to go through or overcome.'* Sharing of experiences by the lecturers or clinical supervisors with the learners about how they had overcome challenges might encourage learners to view problems encountered as a process of growth and not as obstacles to their learning process.

Self-confidence is defined as trust in a person's abilities, qualities and judgment (*Pocket Oxford English Dictionary* 2005). Less than half ($n = 76$; 49.7%) of the 153 (100%) respondents *agreed* about their *self-confidence* to perform a clinical procedure on their own. Only two thirds ($n = 101$; 66.0%) of the respondents *agreed* to *strongly agreed* that they perceived themselves as self-confident enough to perform a clinical procedure on their own. On the other hand, slightly more than one third ($n = 52$; 34.1%) of the respondents *strongly disagreed* to *did not know* to the item, suggesting their perceptions of a lack of self-confidence to perform a clinical procedure on their own.

DISCUSSION

The findings related to the respondents' responsibility and positivity towards learning showed that the majority of them had a positive perception of their learning. It is worth mentioning that a positive perception by learners of the need for learning plays a significant role in the learning process and it portrays their motivation for learning. Through an understanding of the learning activities, the learners' inner drive provides them with maintenance in learning and achievement of goals (Lee and Yuan 2010, 56). Furthermore, this motivation consequently requires the application of their physical or mental activity for attaining their goals (Schunk et al 2008).

In relation to the perceptions of first year learner nurses about their motivation towards SDL during clinical activities in the skills laboratory, responses with less than 70 per cent in agreement were related to viewing problems as challenges rather than obstacles and having enough self-confidence to perform a clinical procedure on their own.

Respondents' positivity towards learning could be associated with their orientation to learning as adult learners. Knowles (1980, 44) explains that adult learners view education as a process of developing competence to achieve their full potential in life. As prospective nurses, they require the knowledge and skills that would enable them to work effectively; hence, they are performance-centred in their orientation to learning. This view appears to concur with a view articulated in the study that aimed to gather information about what students consider important for their motivation to attain knowledge where it is revealed that students' experience of what they have learnt is relevant and necessary in order to manage working as a nurse (Bengtsson and Ohlsson 2010, 155).

Certain factors influence learning motivation. The responses on avoiding failure during SDL might suggest that not only did SDL enhance the respondents' clinical skills but also prepared them for evaluation by their clinical supervisors in order to pass. According to Ryan and Deci (2000, 68), extrinsically motivated students perform either to attain a desirable grade or to avoid failure. In clinical education, studies have revealed that achievement, becoming nurses, and having an interest in people and in caring for them are motivating factors for learning (Bengtsson and Ohlsson 2010, 154; Mrayyan et al 2008, 126). The researcher assumed that due to extrinsic motivation, respondents perceived the item positively.

Self-confidence towards learning was lacking and indicated the lowest mean value (= 3.69; SD = 0.920) around the aspect of learning motivation. This might be interpreted that self-confidence for performing a clinical procedure on their own could be due to the nursing level and new exposure to the clinical procedure. Bambini, Washburn and Perkins (2009, 69) assert that clinical skills learning and clinical simulation experiences in the skills laboratory effectively increase students' confidence in their ability to perform clinical procedures. Baillie and Curzio (2009) further describe that lack of exposure to clinical skills results in loss of confidence, and the lack of belief that can jeopardise the safety and comfort of patients. Furthermore,

previous academic and life experiences provide students with self-confidence and competence for everyday situations (Brown et al 2003).

FUTURE DIRECTION FOR NURSE EDUCATORS

The clinical supervisors/educators should direct the learners' minds to believing that the experience of problems leads to growth because everybody is expected to solve problems in their everyday and professional lives. Jonassen (2011) suggests that educators have to assist learners with learning to solve the problems they face in their professional lives, since the ability to approach problems positively depends on past experience, expertise and view of self. Furthermore, by acting as role models in the successful management of problems, learners could start viewing problems as positive opportunities, and not as obstacles, to enrich their own problem solving competencies.

Perry (2011) views self-confidence as critical for future health care professionals, since it plays a vital role in competence development and skills mastery. Therefore, facilitators should develop a belief in every learner as a winner. When learners are acknowledged for positive attempts, for example when conducting procedures, they will start to believe in themselves more; it also leads to building self-confidence. Other strategies to build learners' self-confidence are to encourage them to use simulation opportunities in the skills laboratory. Simulation has been shown to significantly improve learner nurses' self-confidence (Blum, Borglund and Parcells 2010; Lewi and Ciak 2011).

Tenets of adult learning suggest that learners should be able to compile a framework for their own learning objectives (Knowles 1975). The inability to formulate learning objectives raises concern about the extent to which the learners direct their learning; focus on specific learning needs; and play an active role during their learning process. For this reason, the facilitators should empower the learners to formulate their own learning objectives. By making use of learning contracts, learners could learn how to formulate their learning objectives based on their self-identified learning needs. Learning contracts develop learner's self-directedness in acquiring knowledge and skills, and exercising control in their learning experiences (Mohammed 2010, 17; Rye 2008, 1475).

Further research should focus on the learners' preferred mode of support for enhancing SDL in the skills laboratory. The researcher further recommends a qualitative study that will explore learners' in-depth experiences across different nursing year levels. The open-ended questions used in the current study could not sufficiently evoke a deeper understanding of the study phenomena.

The study was limited to only the first year level of a nursing programme. More comprehensive findings could have been obtained about learner nurses' perceptions of SDL in the skills laboratory if all four levels were included. Furthermore, the approach employed in the current study did not elicit an in-depth understanding of the phenomenon due to the research design.

CONCLUSION

Innovative teaching and learning strategies need to be employed during clinical skills development. According to Murad et al (2010, 1057), SDL is effective and better than traditional teaching methods for the acquisition of clinical knowledge and attitudes. In the same vein, Brydges et al (2009, 507) indicate that SDL clinical technical skills increase skills retention. Therefore, the study results may also contribute to the existing body of knowledge of the perceptions of first year learner nurses about SDL in the skills laboratory. Exploring the perceptions of learners on a new teaching and learning approach may also enable the training institution to create an environment that would facilitate its utilisation. The results may also be used at a school of nursing to enhance SDL, since it is essential in helping nurses to meet the challenges of current day health care demands.

The study has provided an insight into first year learner nurses' perceptions about SDL during clinical activities in the skills laboratory. The findings revealed that most of the respondents perceived SDL in the skills laboratory positively. These results suggest that when the respondents perceived themselves to be motivated towards SDL they would successively self-monitor their learning process, plan and implement learning strategies to bridge the identified learning gaps, and be able to utilise their interpersonal communication skills for enhancing their own learning process.

The institution, as well as the lecturers and clinical supervisors, should provide a conducive environment to facilitate SDL. Fostering SDL in clinical skills acquisition would significantly prepare prospective nurses for the lifelong learning that is required in a constantly changing health care system.

REFERENCES

- Al-Kadri, H. M., M. S. Al-Moamary, H. C. Habib Al-Takroni, C. Roberts and C. M. van der Vleuten. 2012. Self-assessment and students' study strategies in a community of clinical practice: A qualitative study. *Medical Education Online* 17.
- American Association of Colleges of Nursing. 2008. *The essentials of baccalaureate for professional nursing practice*. <http://www.aacn.nche.edu/educationresources/baccessential08.pdf> (accessed 10 January 2013).
- Andrade, H. and A. Valtcheva. 2009. Promoting learning and achievement through self-assessment. *Theory into Practice* 48(1): 12–19.
- Avdal, E. Ü. 2013. The effect of self-directed learning abilities of students' nurse in success in Turkey. *Nurse Education Today* 33(8): 838–841.
- Babbie, E. 2010. *The practice of social research*. Twelfth edition. Canada: Wadsworth, Cengage Learning.
- Babbie, E. and J. Mouton. 2001. *The practice of social research*. South African edition. Cape Town: Oxford University Press.
- Bailey, M. E. and D. Tuohy. 2009. Student nurses' experience of using learning contract as a method of assessment. *Nurse Education Today* 29(7): 758–762.

- Baillie, L. and J. Curzio. 2009. A survey of first-year student nurses' experiences of learning blood pressure measurement. *Nurse Education in Practice* 9: 61–71.
- Bambini, D., J. Washburn and R. Perkins. 2009. Outcomes of clinical simulation for novice nursing students: Communication, confidence, clinical judgment. *Nursing Education Research* 30(2): 79–82.
- Bastable, S. B. 2008. *Nurse as educator: Principles of teaching and learning for nursing practice*. Third edition. Boston, MA: Jones and Bartlett Learning.
- Batalden, P. and F. Davidoff. 2007. Teaching quality improvement: The devil is in the details. *Journal of the American Medical Association* 298(9): 1059–1061.
- Baxter, P. and G. Norman. 2011. Self-assessment or self-deception? A lack of association between nursing students' self-assessment and performance. *Journal of Advanced Nursing* 67(11): 2406–2413.
- Bengtsson, M. and B. Ohlsson. 2010. The nursing and medical students motivation to attain knowledge. *Nurse Education Today* 30: 150–156.
- Billings, D., M. and J. A. Halstead. 2009. *Teaching in nursing a guide for faculty*. Third edition. St. Louis: Saunders Elsevier.
- Blanche, M. T., K. Durrheim and D. Painter. 2006. *Research in practice: Applied methods for social sciences*. Second edition. Cape Town: University of Cape Town Press.
- Blum, C. A., S. Borglund and D. Parcels. 2010. High-fidelity nursing simulation: Impact on student self-confidence and clinical competence. *International Journal of Nursing Education Scholarship* 7(1): Article 18.
- Bokken, L., Van Dalen, J. and J. J. Rethans. 2006. The impact of simulation on people who act as simulated patients: A focus group study. *Medical Education* 40(8): 781–786.
- Borduas, F., R. Gagnon, Y. Lacoursière and R. Laprise. 2001. The longitudinal case study: From Schön's model to self-directed learning. *Journal of Continuing Education in the Health Professions* 21(2): 103–109.
- Boswell, C. and S. Cannon. 2011. *Introduction to nursing research: Incorporating evidence based practice*. <http://www.books.google.co.za/books?isbn=0763776157> (accessed 15 September 2013).
- Bravo, E., B. Amante, P. Simo, M. Enache and V. Fernandez. 2011. Video as a new teaching tool to increase student motivation. <http://www.researchgate.net> (accessed 2 September 2013).
- Brink, H. I. L. 2006. *Fundamentals of research methodology for health care professionals*. Second edition. Cape Town: Juta.
- Brockett, R. G. and R. Hiemstra. 1991. *Self-direction in adult learning: Perspectives on theory, research, and practice*. London: Routledge.
- Brown, B., L. O'Mara, M. Hunsberger, B. Love, M. Black, B. Carpio, D. Crooks and C. Noesgaard. 2003. Professional confidence in baccalaureate nursing students. *Educational Practice* 3(3): 163–170.
- Brydges, R., H. Carnahan, O. Safir and A. Dubrowski. 2009. How effective is self-guided learning of clinical teaching skills? It's all about process. *Medical Education* 43(6): 507–515.
- Burns, N. and S. K. Grove. 2009. *The practice of nursing research. Appraisal, synthesis, and generation of evidence*. Sixth edition. St. Louis: Saunders Elsevier.
- Ching Mok, M. M. 2012. *Self-directed learning, oriented assessments in the Asia-Pacific*. New York: Springer.

- Dearnley, C. and B. Matthew. 2007. Factors that contribute to undergraduate student success. *Teaching in Higher Education* 12(3): 377–91.
- Finkelman, A. W. and C. Kenner. 2012. *Professional nursing concepts: Competencies for quality leadership*. Second edition. Boston, MA: Jones and Bartlett Learning.
- Goede, R. 2012. A critical social research perspective on self-directed learning and information technology practitioners. *World Academy of Science, Engineering and Technology* 64: 1059–1065.
- Henning, M. 2007. Students' motivation to learn, academic achievement, and academic advising. Doctoral thesis, AUT University, Auckland, New Zealand. <http://www.aut.researchgateway.ac.nz> (accessed 1 November 2013).
- Henning, M., C. Krägeloh, S. J. Hawken, I. Doherty, Y. Zhao and B. Shulruf. 2011. Motivation to learn, quality of life and estimated academic achievement: Medical students studying in New Zealand. *Medical Science Education* 21(2): 142–150.
- Hewitt-Taylor, J. 2002. Self-directed learning: Views of teachers and students. *Journal of Advanced Nursing* 36(4): 496–504.
- Jeggels, J. D., A. Traut and M. Kwast. 2010. Revitalization of clinical skills training at the University of the Western Cape. *Curationis* 33(2): 51–59.
- Jonassen, D. H. 2011. *Learning to solve problems: A handbook for designing problems-solving learning environment*. New York: Routledge.
- Kennedy, T. J., L. Lingard, G. R. Baker, L. Kitchen and G. Regehr. 2007. Clinical oversight: Conceptualizing the relationship between supervision and safety. *Journal of General Internal Medicine* 22(8): 1080–1085.
- Kosgeroglu, N., M. B. Acat, U. Ayranci, N. Ozabaci and S. Erkal. 2009. An investigation on nursing, midwifery and health care students' learning motivation in Turkey. *Nurse Education in Practice* 9(5): 331–339.
- Knowles, M. S. 1970. *The modern practice of adult education*. New York: Associated Press.
- Knowles, M. S. 1975. *Self-directed learning. A guide for teachers and learners*. Chicago, IL: Follett.
- Knowles, M. S. 1980. *The modern practice of adult education*. Cambridge: The Adult Education Company.
- Knowles, M. S. 1984. *Andragogy in action*. San Francisco, CA: Jossey-Bass.
- Knowles, R. 1990. *The adult learner: A neglected species*. Fourth edition. Houston, TX: Gulf.
- Lee, I. C. and K. Yuan. 2010. The effects of learning motivation, total quality teaching and peer-assisted learning on study achievement: Empirical analysis from vocational universities or colleges' students in Taiwan. *Journal of Human Resource and Adult Learning* 6(2): 56–73.
- Li, L. J., L. B. An and W. T. Li. 2010. Nursing student's self-directed learning. *Chinese General Nursing* 8(5): 1205–1206.
- Li, X., S. Y. Deng and Y. L. Chen. 2009. Establishment of a new model for nursing talents training and brand-new learning. *Nursing Research* 23(38): 737–738.
- McMillan, J. H. and S. Schumacher. 2006. *Research in education. Evidence-based inquiry*. Sixth edition. Boston, MA: Pearson Education.
- McQuoid-Mason, D. and M. Dada. 2011. *A-Z of nursing law*. Second edition. Cape Town: Juta.

- Mohammed, M. R. 2010. Do not give me a fish; teach me how to fish: A case study of an international adult learner. *Adult Learning* 21(1/2): 15–18.
- Mrayyan, T. M., R. Modallal, K. Awamreh, M. Atoum, M. Abdullah and S. Suliman. 2008. Readiness of organizations for change, motivation and conflict-handling intentions: Senior nursing students' perceptions. *Nurse Education in Practice* 8(2): 120–128.
- Murad, M. H. and P. Varkey. 2008. Self-directed learning in health profession education. *Annals Academy of Medicine* 37(7): 580–590.
- Murad, M. H., F. Coto-Yglesias, P. Varkey, L. J. Prokop and A. L. Murad. 2010. The effectiveness of self-directed learning in health professions education: A systematic review. *Medical Education* 44(11): 1057–1068.
- Nilsson, K. E. L. and M. I. W. Stomberg. 2008. Nursing students' motivation toward their studies – a survey study. *BioMed Central Nursing* 7(6): 1–7.
- Oxford English Dictionary*. 2005. Tenth edition. New York: Oxford University Press.
- Ozdemir, A., N. Akansel and G. C. Tunk. 2008. Gender and career: Female and male nursing students' perceptions of male nursing role in Turkey. *Health Science Journal* 2(3): 153–161.
- Pallant, J. 2011. *SPSS survival manual: A step by step guide to data analysis using SPSS*. Fourth edition. Sydney: Allen and Unwin.
- Perry, A. 2011. Concept analysis: Confidence/self-confidence. *Nursing Forum* 46(4): 218–230.
- Pintrich, R. and D. H. Schunk. 2002. *Motivation in education: Theory, research, and application*. Second edition. Upper Saddle River, NJ: Merrill Prentice Hall.
- Pintrich, R. and A. Zusho. 2007. Student motivation and self-regulated learning in the college classroom. In *The scholarship of teaching and learning in higher education: An evidence-based perspective*, ed. R. Perry and J. C. Smart, 731–810. Dordrecht: Springer.
- Pryce-Miller, M. 2010. Are first year undergraduate student nurses prepared for self-directed learning? <http://www.nursingtimes.net/nursing> (accessed 14 October 2013).
- Ryan, R. M. and E. L. Deci. 2000. Self-determination theory and facilitation of intrinsic motivation, social development, and well-being. *American Psychologist* 55(1): 68–78.
- Rye, K. J. 2008. Perceived benefits of the use of learning contracts to guide clinical education in respiratory care students. *Respiratory Care* 3(11): 1475–1481.
- Safavi, M., S. Shooshtari, M. Mahmoodi and M. H. Yarmohammadian. 2010. Self-directed learning readiness and learning styles among nursing students of Isfahan University of Medical Sciences. *Iranian Journal of Medical Education* 10(1): 27–36.
- Schunk, D. H., R. Pintrich and J. L. Meece. 2008. *Motivation in education, theory, research and application*. Upper Saddle River, NJ: Pearson Education.
- Tallent-Runnels, M. K., J. A. Thomas, W. Y. Lan, S. Cooper, T. C. Ahern, S. M. Shaw and X. Liu. 2006. Teaching courses online: A review of the research. *Review of Educational Research* 76(1): 93–135.
- Timmins, F. 2008. Take time to facilitate self-directed learning. *Nurse Education in Practice* 8(5): 302–305.
- Wellard, S. J., R. Woolf and L. Gleeson. 2007. Exploring the use of clinical laboratories in undergraduate nursing programs in regional Australia. *International Journal of Nursing Education Scholarship* 4(1): 1–11.
- Winne, H. and J. C. Nesbit. 2010. The psychology of academic achievement. *Annual Review of Psychology* 61: 653–678.

- Wlodkowski, R. J. 2008. *Enhancing adult motivation to learn: A comprehensive guide for teaching all*. <http://www.books.google.co.za/books?isbn=1118047524> (accessed 2 October 2013).
- Wolfenden, J. 2011. Men in nursing. *Internet Journal of Allied Health Sciences and Practice* 9(2): 1–6.
- Yoo, M. S., I. Y. Yoo and H. Lee. 2010. Nursing students' self-evaluation using a video recording of Foley catheterization: Effects on students' competence, communication skills, and learning motivation. *Journal of Nursing Education* 49(7): 402–405.