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Nursing students' perceptions of the clinical learning environment at a university in South Africa

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A B S T R A C T

The clinical learning environment has been found to be significantly related to nursing practice and ultimately patient outcome. However, despondency among nursing students towards the clinical learning environment has been widely reported. This study adopted a quantitative research method that included a descriptive survey design with the aim to examine nursing students' perceptions of the clinical learning environment. The target study population (N = 498) was comprised of third- and fourth-year undergraduate nursing students at the selected university. The sample (n = 218) was selected through a simple random sampling technique. Data were collected using the 42-items Clinical Learning Environment Inventory Tool. Descriptive and inferential statistics (Chi-square and independent sample *t*-test) were used to analyse the data using the Statistical Package for Social Science version 25.

Results: The results indicate that student satisfaction within the clinical learning environment is a key contributor to the teaching and learning process. Educators were found to be creating interesting and innovative approaches to teaching and learning; however, clinical learning experiences are still dominated by a rigid learning structure and limited interaction between students and clinical facilitators.

Conclusion: The study found that students generally perceive the clinical learning environment as satisfactory, where educators strive to employ interesting and innovative methods to teach nursing students. However, there is a need to include other models of teaching and learning to encourage individualization, innovation, involvement, personalization, and task orientation.

1. Introduction and background

Clinical placement in nursing education forms an integral part of grooming a nursing student to become an independent and competent practitioner. Likewise, the clinical learning environment has a significant impact on clinical learning and teaching of nursing students and ultimately impacts directly or indirectly on the quality of patient care and patient outcome (Setati & Nkosi, 2017). It is, however, a well-documented phenomenon that nursing students experience challenges related to learning the necessary clinical skills required for them to be competent qualified nurses (Kerthu & Nuuyoma, 2019; Rajeswaran, 2017). The nursing theory-clinical practice gap continues to be a major shortfall in producing high quality nurses to meet the increasing demand of the clinical work environment. (Hezaveh, Rafii, & Seyedfatemi, 2014). This challenge leads to poor quality of practices conducted by novice nurses in the workplace (Hezaveh et al., 2014; Manoochehri, Imani, Atashzadeh-Shoorideh, & Alavi-Majd, 2015).

The clinical learning environment in this study is defined as a pre-determined venue where the nursing student is systematically exposed to learning and practice opportunities in simulation laboratories and with real patients in a service provider facility (Carlson, Kotze, & Van Rooyen, 2005). This environment should be easily accessible, adequately staffed with trained professionals who are accommodating to learning needs, interactive clinical facilitators, and open communication. (Jamshidi, Molazem, Sharif, Torabizadeh, & Najafi Kalyani, 2016; Papastavrou, Dimitriadou, Tsangari, & Andreou, 2016). The success of clinical learning is highly dependent on the relationship between the environment and learning opportunities (Lawal, Weaver, Bryan, & Lindo, 2015; Perry, Press, Rohatinsky, Compton, & Sedgwick, 2016).

The most important feature of a good learning environment is a sense of ontological security which can be established through harmonious interactions between students, nursing staff, and educators (Cremonini et al., 2015; Khoza, 2015). Ontological security is easily disrupted during transition phases between theory-laboratory-practice and poor

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relationships between the nurse educator and the clinical nurse supervisor in the clinical learning environment (Donae & Varcoe, 2015). As a result, students find the clinical learning environment to be dissatisfying and an anxiety-provoking experience (Papastavrou et al., 2016).

There is a lack of evidence drawing substantial conclusions on nursing students' perceptions of their clinical learning environment and, as a result, valuable avenues for enhancing the clinical learning environment are overlooked. Consequently, nursing students remain exposed to clinical learning environments that lack a sense of ontological security, with the result that the quality of nursing programmes continues to decline.

The clinical setting as a learning environment is a significant concern in contemporary nursing education and requires interval evaluations to ensure that it remains a conducive learning environment (Papastavrou et al., 2016). Furthermore, there is a growing concern among nursing educators that the clinical learning environment is commonly known to have a negative impact on undergraduate nursing students' learning which, in turn, directly impacts their performance as qualified novice nursing professionals and the quality of the service that they deliver (Papastavrou et al., 2016). Identifying and understanding the features of a healthy clinical learning environment from the numerous qualitative research studies that have been conducted continues to challenge clinical facilitators; partly because nursing students have become apathetic about voicing their opinions and difficulties as they continue to express the same challenges (Rafiee, Moattari, Nikbakht, Kojuri, & Mousavinasab, 2014). Providing clinical environments that support student learning is a major concern for nursing education programmes as this seriously affects the calibre of clinical competence of the nurses in today's workforce (Baraz, Memarian, & Vanaki, 2015).

1.1. Aim of the study

The study aimed to examine nursing students' perception of the clinical learning environment at a university in South Africa.

1.2. Objectives

The following objectives guided the study:

1. To examine the extent to which clinical facilitators introduce new teaching and learning activities
2. To examine the extent of students' active and attentive participation in clinical activities
3. To determine individual opportunities of interaction between students and clinical facilitators
4. To determine the extent to which nursing students enjoy the clinical learning environment.
5. To examine the extent to which students can make decisions and are treated fairly.
6. To determine the extent of organization and clarity of activities in the clinical learning environment.

2. Method

2.1. Research design

A quantitative research method with a descriptive survey design was conducted, using a Clinical Learning Environment Inventory (CLEI) (Chan, 2001) to measure perceptions of student experiences in a clinical learning environment. This method was adopted to acquire quantifiable data that reveals facts and patterns that would allow generalisation within a large population.

2.2. Research setting

The study was conducted at a School of Nursing (SoN) at a university in South Africa. The SoN offers a range of programmes at both undergraduate and postgraduate level. All students that were actively registered for the third- and fourth-year level of the undergraduate programmes, which included a four-year Bachelor of Nursing (BNur - mainstream) programme as well as a five-year Extended Curricula Programme (ECP) (BNur foundation programme), were the main focus of this study. The successful completion of these programmes leads to professional registration as a general nurse, midwife/accoucheur, community health nurse and psychiatric nurse by the South African Nursing Council (SANC).

2.3. Population and sampling

The SANC, in terms of Section 32 of the Nursing Act 2005, defines a student nurse as a person enrolled at a nursing education institution and registered with SANC as a learner nurse. The study population (N = 498) included third-year (N_1 = 250; 50.2 %) and fourth-year (N_2 = 248; 49.8 %) undergraduate nursing students at the selected university for the 2018 academic year. The minimum required sample size of 218 was calculated using the sample size equation $n = (p) (1 - p) (Z)^2/e^2$ with 95 % confidence interval level (Z = 1.96), a 5 % margin error (*e*) and an estimated prevalence rate *(p)* of 50 %. The participants were selected using a simple random sampling technique. All third- and fourth-year undergraduate nursing students, who had no previous working experience in the health care profession and no alternate healthcare qualifications, were eligible to participate in the study.

2.4. Research instrument and data collection

The Clinical Learning Environment Inventory (CLEI) instrument developed by Chan (2001) is a well-established tool in assessing and evaluating clinical learning environments from the viewpoint of the student. This tool which has been used in numerous university studies and shown to be trustworthy was used to collect data that expand on the factors that contribute to negative learning environments. The CLEI has two versions; one that focuses on a student's actual experiences, and one that focuses on their preferred learning environment (Chan, 2001, 2002). In this study, the actual version of the CLEI was adopted. This instrument consisted of 42 positively and negatively worded items assessing the nursing students' perception of the clinical learning environment. The instrument comprised of six subscales each consisting of seven items that aimed to address the study objectives: i) Innovation (objective one); ii) Student Involvement (objective two); iii) Personalisation (objective three); iv) Satisfaction (objective four); v) Individualisation (objective five) and; vi) Task Orientation (objective six).

The participants responded by means of a 4-point Likert Scale ranging from Strongly Agree, Agree, Disagree and Strongly Disagree. The negative items were reverse scored in order to ensure alignment of all responses. To provide a complete description of the study participants, demographic data, including age, race, and gender, were added to the instrument. The actual version of the CLEI has a well-established reliability with an inter-item reliability (Cronbach's alpha) of 0.73–0.84 for the actual version (Bigdeli et al., 2015; Chan, 2001). This Cronbach's alpha coefficient indicates that the actual version of the CLEI is reliable, that there should not be any inconsistencies, and that the items are correlated with each other (Shivers, Hasson & Slater, 2017).

All students were informed via email of the chosen dates and times for participation. Data were collected between July and August 2018. The process of data collection was explained to all students. The right to autonomy was ensured by giving the participants an opportunity to reject participation. All participants were provided with an information sheet that outlined the study as well as a consent form that required the participant to complete and return to the researcher. Data were collected from fourth years students on orientation day after the mid-year break. For third- year nursing students' data were collected by the researcher immediately after completion of class lectures. Each session for data

collection took approximately twenty (20) minutes.

2.5. Data processing and analysis

Data were analysed using the IBM Statistical Package for Social Science version 25 (IBM SPSS-25). Descriptive statistical analysis was used to provide statistical summaries of data by means of generating frequencies, mean values, and percentages. Inferential statistical tests were conducted to analyse more complex data. Chi-square analysis was used to test for associations between groups for the categorical variables and appropriate parametric tests (Independent Sample *t*-test) were used to test variances between groups.

2.6. Ethical considerations

Ethics clearance (HS17/10/48) was received from the ethics committee of the university. Permission to conduct the study was sought from the university registrar and the director of the SoN. Informed and written consent was obtained from the study participants (Brink, Van der Walt, & Van Rensburg, 2012). The principle of anonymity was safeguarded throughout the study and no names were placed on the questionnaires.

3. Results

3.1. Demographic information

Most of the 218 respondents were female 85.3 % (n = 186). The mean age of the respondents was 23.5 ($\pm$4.1). There was a significant difference between the groups (T = 0.2, p =.013*) with fourth-year nursing students being older (24.2 $\pm$ 4.5) as compared with the third-year students (22.8 $\pm$ 3.4). The majority of the participants were black, 58.3 % (n = 127), followed by 31.2 % (n = 68) coloured, 8.7 % (n = 19) white, and 1.8 % (n = 4) Indian. None of the respondents had previous nursing education.

3.2. Clinical facilitator introduced new teaching and learning activities

The overall average score, found in Table 1, for the extent to which clinical facilitators introduce new teaching and learning activities was 2.6 ($\pm$0.5). Just under two thirds of the respondents 63.8 % (n = 139) reported that "the clinical facilitator often thinks of interesting activities"; this was followed closely by 55.5 % (n = 121) agreeing "the clinical facilitator thinks up innovative activities for students". Less than

half of the respondents, 44.2 % (n = 96), agreed that the same staff members work with the students for most of the placement, 33.0 % (n = 72) felt that new ideas are seldom tried out during clinical placement, 24.3 % (n = 53) stated that new and different ways of teaching students are seldom used in the ward, and 19.3 % (n = 42) responded "that students seem to do the same type of tasks in every shift". There was a significant difference between the groups ($x^2 = 27.4$, $p = .001$) with most fourth-year students 64.7 % (n = 90) agreeing that facilitators often think of interesting activities, as compared with 35.3 % (n = 49) of their third-year counterparts. There was also a significant difference between the groups ($x^2 = 16.3$, $p = .001$), with more fourth-year students 63.6 % (n = 77) agreeing that the facilitator thinks up innovative activities for students, as compared with the third-year students 36.4 % (n = 44).

3.3. Student's active and attentive participation in clinical learning activities

Respondents were asked to rate the extent to which students participate actively and attentively in clinical activities. The average student participation score was 2.2 ($\pm$0.3). Classifying the responses, 58.3 % (n = 127) reported that there are opportunities for students to express opinions in the clinical ward, less than half, 46.8 % (n = 102) of the respondents indicated that they are seldom involved in the process of handing over to staff in the ward for the next shift, and 45.9 % (n = 100) reported that clinical facilitators dominate debriefing sessions. There was a significant difference between the groups ($x^2 = 8.0$, $p = .005$) with more third-year students 55.7 % (n = 59) agreeing that facilitators dominate debriefing sessions as compared with 36.6 % (n = 41) of fourth-year students (See Table 2).

3.4. Opportunities for interaction between student and clinical facilitators

Respondents were asked to rate the opportunities they had to interact with the clinical facilitators. The average opportunities of interaction score was 2.4 ($\pm$0.4). Over two-thirds, 68.8 % (n = 150), of the respondents reported that the facilitator was unfriendly and inconsiderate towards students, followed by 62.4 % (n = 136) who agreed that the facilitator was not interested in the students' problems, and 54.1 % (n = 118) who reported that the facilitators talked individually with students. More than half of the respondents, 51.4 % (n = 112), agreed that the clinical facilitator went out of his/her way to help students.

There was a significant difference between the groups ($X^2 = 5.1$, $p = .023$) with more fourth-year students, 61.6 % (n = 69), agreeing that

Table 1
Clinical educator's creativity to introduce new learning activities.

Questions in accordance with each sub-scale	Level of agreement			Test	*p*-value
	Total (n = 218)	Third-year (n = 106)	Fourth-year (n = 112)		
Innovation					
The clinical facilitator often thinks of interesting activities.	139 (63.8 %)	49 (35.3 %)	90 (64.7 %)	$X^2 = 27.4$	<0.001*
The clinical facilitator thinks up innovative activities for students.	121 (55.5 %)	44 (36.4 %)	77 (63.6 %)	$X^2 = 16.3$	<0.001*
Teaching approaches in clinical wards are characterised by innovation and variety.	105 (48.2 %)	51 (48.6 %)	54 (51.4 %)	$X^2 = 0.0$	0.988
The same staff member (preceptor/clinician) works with the students for most of this placement.	96 (44.2 %)	41 (42.7 %)	55 (57.3 %)	$X^2 = 2.2$	0.136
New ideas are seldom tried out during clinical placements.	72 (33.0 %)	38 (52.8 %)	34 (47.2 %)	$X^2 = 0.7$	0.389
New and different ways of teaching the students are seldom used in the ward.	53 (24.3 %)	22 (41.5 %)	31 (58.5 %)	$X^2 = 1.4$	0.234
Students seem to do the same type of tasks in every shift.	42 (19.3 %)	25 (59.5 %)	17 (40.5 %)	$X^2 = 2.5$	0.116
Total average mean score [95 % CI −0.1–0.1]	**2.6 (0.5)**	**2.6(0.6)**	**2.6(0.3)**	**t = 1.7**	**0.729**

Chi-square Test (or Fisher Exact Tests where appropriate), Independence sample *t*-test. *Significance at p <.05.

Table 2
Student's active and attentive participation in clinical learning.

Questions in accordance with each sub-scale	Level of agreement			Test	p-value
	Total (n = 218)	Third-year (n = 106)	Fourth-year (n = 112)		
Involvement					
There are opportunities for students to express opinions in the clinical ward.	127 (58.3 %)	60 (47.2 %)	67 (52.8 %)	$X^2 = 0.2$	0.630
Students are seldom involved with the process of handing over to staff in the ward for the next shift.	102 (46.8 %)	44 (43.1 %)	55 (56.9 %)	$X^2 = 2.3$	0.129
The facilitator dominates debriefing sessions.	100 (45.9 %)	59 (55.7 %)	41 (36.6 %)	$X^2 = 8.0$	0.005*
The preceptor/clinician talks rather than listens to the students.	72 (72.0 %)	36 (50.0 %)	36 (50.0 %)	$X^2 = 0.8$	0.081
Students "clock watch" during clinical placements.	49 (22.5 %)	27 (55.1 %)	22 (44.9 %)	$X^2 = 1.1$	0.303
Students pay attention to what others are saying in the clinical wards.	23 (10.6 %)	13 (56.5 %)	10 (43.5 %)	$X^2 = 0.6$	0.423
Students put effort into what they do in the ward.	20 (9.2 %)	7 (35.0 %)	13 (65.0 %)	$X^2 = 1.6$	0.201
Total average mean score [95 % CI −0.2–0.0]	**2.2(0.3)**	**2.1(0.3)**	**2.3(0.3)**	**t = 0.1**	**0.004***

Chi-square Test (or Fisher Exact Tests where appropriate), Independence sample *t*-test. *Significance at p <.05.

Table 3
Opportunities of interaction between students and clinical educator.

Questions in accordance with each sub-scale	Level of agreement			Test	p-value
	Total (n = 218)	Third-year (n = 106)	Fourth-year (n = 112)		
Personalisation					
The clinical facilitator is unfriendly and inconsiderate towards students	150 (68.8 %)	74 (69.8 %)	76 (67.9 %)	$X^2 = 0.1$	0.756
The facilitator is not interested in students' problems	136 (62.4 %)	65 (61.3 %)	71 (63.4 %)	$X^2 = 0.1$	0.752
The facilitator talks individually with students	118 (54.1 %)	49 (46.2 %)	69 (61.6 %)	$X^2 = 5.1$	0.023*
The preceptor/clinician goes out of his/her way to help students	112 (51.4 %)	42 (39.6 %)	70 (62.5 %)	$X^2 = 11.4$	<0.001*
After the shift, the students have a sense of dissatisfaction	85 (39.0 %)	45 (42.5 %)	40 (35.7 %)	$X^2 = 1.0$	0.308
The preceptor/clinician helps students who are having trouble with the work	83 (38.1 %)	35 (33.0 %)	48 (42.9 %)	$X^2 = 2.2$	0.135
The preceptor/clinician considers students' feelings	82 (37.6 %)	36 (34.0 %)	46 (41.1 %)	$X^2 = 1.2$	0.279
Total average mean score. [95 % CI −0.2–0.0]	**2.4(0.4)**	**2.3(0.4)**	**2.4(0.4)**	**t = 1.1**	**0.027***

Chi-square Test (or Fisher Exact Tests where appropriate), Independence sample *t*-test. *Significance at p <.05.

facilitators talk individually with students, as compared with 46.2 % (n = 49) of third-year students. There was a significant difference between the groups ($X^2 = 11.4$, p =.001) with more fourth-year students, 62.5 % (n = 70), agreeing that the clinical facilitator went out of his/her way to help students as compared with 39.6 % (n = 42) of their third-year counterparts (See Table 3).

3.5. Student nurses enjoy the clinical learning environment

In measuring the extent to which nursing students enjoy the clinical learning environment, the average score was calculated as 2.4 (±0.4).

Most of the respondents, 81.2 % (n = 177) reported that clinical placement was a waste of time. There was a significant difference between the groups ($X^2 = 14.7$, p =.001) with more fourth-year students 91.1 % (n = 102) reporting that clinical placement was a waste of time compared to 70.8 % (n = 75) of the third years. This was followed by 68.3 % (n = 149) who reported that clinical placement was boring. Less than one-third of the respondents, 28.3 % (n = 62) agreed that clinical placement was interesting (See Table 4).

Table 4
Determining whether nursing students enjoy the clinical learning environment.

Questions in accordance with each sub-scale	Level of agreement			Test	p-value
	Total (n = 218)	Third-year (n = 106)	Fourth-year (n = 112)		
Satisfaction					
This clinical placement is a waste of time.	177 (81.2 %)	75 (70.8 %)	102 (91.1 %)	$X^2 = 14.7$	<0.001*
This clinical placement is boring.	149 (68.3 %)	72 (67.9 %)	77 (68.8 %)	$X^2 = 0.0$	0.896
Students enjoy coming to clinical placements.	126 (57.8 %)	59 (55.7 %)	67 (59.8 %)	$X^2 = 0.4$	0.534
Students look forward to coming to clinical placements.	112 (51.4 %)	51 (48.1 %)	61 (54.5 %)	$X^2 = 0.9$	0.348
After the shift, students have a sense of dissatisfaction.	85 (39.0 %)	45 (42.5 %)	40 (35.7 %)	$X^2 = 1.0$	0.308
Students are dissatisfied with what is done in the ward.	81 (37.2 %)	46 (43.4 %)	35 (31.3 %)	$X^2 = 3.4$	0.064
This clinical placement is interesting.	62 (28.4 %)	30 (28.3 %)	32 (28.6 %)	$X^2 = 0.0$	0.965
Total average mean score. [95 % CI −0.0–0.2]	**2.4(0.4)**	**2.4(0.5)**	**2.3(0.5)**	**t = 4.1**	**0.210**

Chi-square Test (or Fisher Exact Tests where appropriate), Independence sample *t*-test. *Significance at p <.05.

Table 5

Students' decision making in clinical learning environment.

Questions in accordance with each sub-scale	Level of agreement			Test	p-value
	Total (n = 218)	Third-year (n = 106)	Fourth-year (n = 112)		
Individualisation					
Students have a say in how the shift is spent	173 (79.4 %)	75 (70.8 %)	98 (87.5 %)	$X^2 = 9.3$	0.002*
Students are generally allowed to work at their own pace	165 (76.0 %)	72 (68.6 %)	93 (83.0 %)	$X^2 = 6.2$	0.013*
Students can negotiate their workload in the clinical wards	161 (73.9 %)	74 (69.8 %)	87 (77.7 %)	$X^2 = 1.7$	0.186
All staff in the ward are expected to do the same work in the same way	128 (59.0 %)	59 (56.2 %)	69 (61.6 %)	$X^2 = 0.7$	0.418
Teaching approaches allow students to proceed at their own pace	126 (57.8 %)	50 (47.2 %)	76 (67.9 %)	$X^2 = 9.5$	0.002*
There are little opportunities for a student to pursue his/her particular interest in the clinical ward	80 (36.7 %)	46 (57.5 %)	34 (42.5 %)	$X^2 = 4.0$	0.046*
Students seem to do the same type of task in every shift	51 (23.5 %)	26 (24.8 %)	22 (22.3 %)	$X^2 = 0.2$	0.672
Total average mean score [95 % CI −0.2–0.0]	**2.7(0.4)**	**2.6(0.4)**	**2.7(0.4)**	**t = 5.8**	**0.077**

Chi-square Test (or Fisher Exact Tests where appropriate), Independence sample *t*-test. *Significance at p <.05.

3.6. Students decision making in the clinical learning environment

The overall average score for the extent to which students were allowed to make decisions and were treated fairly was 2.7 (±0.4). A significant number of respondents, 79.4 % (n = 173), reported that students have a say in how the shift is spent; this was followed closely by 76 % (n = 165) reporting that students are allowed to work at their own pace. Close to this 73.9 % (n = 161) agreed that they were allowed to negotiate their workload in clinical wards. About 59 % (n = 128) agreed that all staff in the ward were expected to do the same work in the same way, while 57.8 % (n = 126) reported that the teaching approaches allowed students to proceed at their own pace. Some 23.5 % (n = 51) of respondents reported that students seem to do the same type of task in every shift. No significant difference was found in the extent to which students are allowed to make decisions and are treated fairly, with the score between the two groups being (t = 5.8, p =.077) (See Table 5).

3.7. Organization and clarity of activities in the clinical learning environment

The average extent of organization and clarity of activity, the mean score was 2.1 (±0.3). About, 64.2 % (n = 140) of the respondents reported that staff were often punctual, while 47 % (n = 102) reported that the clinical facilitator was often side-tracked instead of sticking to the point. About 39.4 % (n = 86) of the respondents reported that students know exactly what must be done in the ward. There was a significant difference between the groups ($X^2 = 4.7$, p =.030), with less than half of the fourth-year students, 46.4 % (n = 52), agreeing that students know

exactly what has to be done in the ward as compared with 32.1 % (n = 34) of third-year students. The least agreement, 7.4 % (n = 16), was for getting a certain amount of work done is important in each clinical ward (See Table 6).

4. Discussion

4.1. Clinical educators introduce new teaching and learning activities

This study established that 63.8 % of respondents felt that clinical facilitators introduced interesting clinical learning activities, while 55.5 % (n = 121) stated that facilitators incorporate innovative activities in the clinical learning environment. However, positive and negative responses were obtained for the innovation, support, and facilitation techniques utilized by clinical facilitators in the clinical learning environment (Salamonson et al., 2015). The positive attributes referred to the interesting teaching and learning activities that clinical facilitators incorporated into the clinical learning, including the accessibility of the clinical facilitator.

On the other hand, 33 % (n = 72) of the respondents indicated that new ideas were seldom explored during clinical placements, while 43.6 % (n = 95) reported that different methods of teaching were seldom explored. They also indicated that they repeatedly perform the same tasks in each clinical shift, which concurs with the negative attributes as found by Salamonson et al. (2015), who emphasized the lack of variety of task allocations and the monotony of teaching approaches that are relevant to the learning objectives. In comparison, 64.7 % (n = 90) of fourth-years agreed that their facilitators often think of interesting

Table 6

Organization and clarity of activities in the clinical learning environment.

Questions in accordance with each sub-scale	Level of agreement			Test	p-value
	Total (n = 218)	Third-year (n = 106)	Fourth-year (n = 112)		
Task orientation					
Staff are often punctual	140 (64.2 %)	65 (61.3 %)	75 (67.0 %)	$X^2 = 0.8$	0.385
The preceptor/clinician often gets side-tracked instead of sticking to the point	102 (47.0 %)	53 (50.5 %)	49 (43.8 %)	$X^2 = 0.9$	0.321
Clinical placements are disorganized	100 (45.9 %)	53 (50.0 %)	47 (42.0 %)	$X^2 = 1.4$	0.234
Ward assignments are clear so that students know what to do	97 (44.5 %)	44 (41.5 %)	53 (47.3 %)	$X^2 = 0.7$	0.388
Students know exactly what must be done in the ward	86 (39.4 %)	34 (32.1 %)	52 (46.4 %)	$X^2 = 4.7$	0.030*
Workload allocations are carefully planned	42 (19.3 %)	25 (23.6 %)	17 (15.2 %)	$X^2 = 2.5$	0.116
Getting a certain amount of work done is important in each clinical ward	16 (7.4 %)	9 (8.6 %)	7 (6.3 %)	$X^2 = 0.4$	0.513
Total average mean score [95 % CI −0.2–0.1]	**2.1(0.3)**	**2.0(0.4)**	**2.2(0.3)**	**t = 3.8**	**0.024***

Chi-square Test (or Fisher Exact Tests where appropriate), Independence sample *t*-test. *Significance at p <.05.

activities, compared with their third-year counterparts, 35.3 % (n = 49). This significant difference between the year levels cannot be justified from the study findings (X² = 16.3, P =.001). However, it can be attributed to the literature that suggested that the impact of innovation which can be considered as a leading driver in quality nursing education is underestimated amongst nursing clinical facilitators (Salamonson et al., 2015).

The sub-scale of "Innovation" performed the best when compared to the other six sub-scales of the tool as supported by similar findings by Bigdeli et al. (2015). Baraz et al. (2015) emphasised that clinical facilitators should refrain from theoretical methods of teaching that mimic the classroom environment and instead, should incorporate a variety of activities at the patient's bedside.

4.2. Active and attentive participation of the student in clinical learning activities

Well over half of the respondents, 58.3 % (n = 127), reported that there were opportunities for students to express their opinions and attentively participate in the clinical learning environment, just under half, 48 % (n = 102), reported that students were seldom involved in the process of handing over to staff in the ward for the next shift. Papastavrou et al. (2016) reported that there are higher levels of satisfaction when students' clinical learning challenges and concerns are addressed by clinical facilitators, which affirms that communication between students and clinical facilitators plays a vital role in student involvement and satisfaction in the clinical learning environment.

The perception of 50 % (n = 36) each for both third- and fourth-year levels was that the clinician talks a lot rather than listening to students. These findings revealed that communication between the student and clinical facilitator hinders the clinical learning experience. There was significant statistical difference between the groups (X² = 8.0, P =.005) with regard to expressing opinion at clinical learning environment.

Baraz et al. (2015) identified that a student's involvement in clinical learning environments is directly attributed to the quality of communication between the student and clinical facilitator. Having meaningful discussions with clinical facilitators to address the student's concerns facilitates student involvement in clinical learning and skills acquisition (Sundler et al., 2014). In addition, the approachability of clinical facilitators and their eagerness to assist determines the achievement of students in clinical learning outcomes more effectively (Baraz et al., 2015).

4.3. Opportunities of interaction between students and clinical facilitators

Just over two-third, 68.8 % (n = 150), of the respondents felt that the facilitator was unfriendly and inconsiderate, while 62.4 % (n = 136) reported that clinical facilitators were not interested in students' problems. A similar study by Farzi, Shahriari and Farzi (2018) identified that undergraduate nursing students experienced increased levels of dissatisfaction in the clinical learning environment due to the incompetence of clinical facilitators and their insensitivity toward students. The study highlighted that non-supportive interpersonal communication and insufficient competence of clinical facilitators hindered the learning process and affected overall student satisfaction.

A possible explanation for these findings can be supported by Salehian, Heydari, Aghebati, and Moonaghi (2017) who identified that support such as listening to students' concerns, providing clarification, and adopting a transparent caring attitude paved the way for productive clinical learning experiences. Najafi Kalyani, Jamshidi, Molazem, Torabizadeh, and Sharif (2019) identified that ill-prepared clinical facilitators who exhibit aggressive mannerisms toward students is a leading cause for dissatisfaction, regardless of the year level of study.

4.4. Nursing students enjoy the clinical learning environment

The sub-scale of "Satisfaction" in the CLEI tool used in this study

assessed overall student satisfaction in the clinical learning environment. Most of the respondents, 81.2 % (n = 177), reported that clinical placement was a waste of time, 68.3 % (n = 149) reported that clinical placement was boring, while 28.3 % (n = 62) reported that clinical placement was interesting. Conversely, Mokadem and Ibraheem (2017) identified that, of the six sub-scales of the CLEI, the sub-scale of "Satisfaction" performed the best and positively reflect the overall happiness of the clinical learning environment. Similarly, "Satisfaction" ranked as the leading sub-scale and the leading domain of clinical learning (Sundler et al., 2014).

In this study, the findings showed that the degree of satisfaction declined as students progressed from third to fourth year. About 91.1 % (n = 102) of the fourth years reporting that clinical placement was a waste of time, compared to 70.8 % (n = 75) of their third-year counterparts. There was a significant difference between the group's degree of satisfaction (X² = 14.7, p =.001). A probable explanation for this might be the fact that the learning objectives and activities differed in the academic progression, as was the case in a similar study by Brynildsen et al. (2014). One could conclude that the third-year students felt high levels of mental stress due to their limited knowledge of clinical skills, whereas the fourth-year students tended to be more adept at the knowledge, but required more leadership and guidance for their development.

Explanations for low levels of satisfaction in the clinical learning environment were found in a study by D'Souza, Nairy, Parahoo, and Venkatesaperumal (2015), where students strongly expressed feelings of vulnerability and felt challenged with conflicting needs and loss of interest. This is similar to the findings of this study, where 81.2 % of respondents reported the clinical placement was a waste of their time. The undergraduate nursing students' study in Iran has shown dissatisfaction due to clinical facilitator's unsupportive behaviour, poor educational resources, and unconducive clinical learning environments. (Najafi Kalyani, Jamshidi, Molazem, Torabizadeh, & Sharif, 2019).

Sari, Baysal, Celik, and Eser (2018), asserted that the development of a positive relationship with the clinical teaching staff was paramount in creating the ideal clinical environment, which could have attributed to the low levels of satisfaction found in this study. The study indicated that satisfaction increased when there was ongoing student involvement. The need for an ongoing mentorship relationship to ensure successful supervision and to determining student satisfaction was strongly emphasized (Dimitriadou, Papastavrou, Efstathiou, & Theodorou, 2015). Furthermore, the mentor should possess appropriate teaching experience and pedagogical education, and the student should be ready and prepared to learn.

4.5. Students' decision making and fair treatment

The extent to which students are allowed to make decisions and are treated fairly found more favour among fourth-year students than third-year students, with mean scores of 2.7 ± 0.4 and 2.6 ± 0.4 respectively; thus, highlighting a greater level of independence at a more senior level. Regarding clinical learning opportunities, less than half of the respondents agreed that there were few opportunities for a student to pursue his/her particular interest in the clinical ward. This was more notable for the third-year group, 57.5 % (n = 46) than for the fourth-year group, 42.5 % (n = 34). A possible explanation for the differences in findings between year levels could be that, as academic promotion occurred, students reported increased confidence levels that directly related to their clinical conduct and to the manner in which they were received and facilitated in the clinical learning environment (Eraydın & Karagözoğlu, 2017). Junior undergraduate nursing students are more strictly managed during clinical placements as opposed to senior year level students, who are viewed as capable and trustworthy enough to make clinical decisions (Eraydın & Karagözoğlu, 2017).

In this regard, the majority of the respondents, 79,4%, stated that students were allowed to utilize their time spent in the clinical learning

environment in their own personal manner, at their own pace and had no difficulty negotiating their workload, while 23.5 % (n = 51) reported that students seemed to perform the same type of tasks in every clinical learning environment. Many researchers who have explored nurse decision making have indicated that decision making is a learned skill that must be taught by nurse educators (DeSimone, 2016; Sari, Baysal, Celik, & Eser, 2018). Studies that support these findings agree that respondents prefer stimulating clinical learning environment where students can freely explore their learning objectives with a sense of belonging (Dimitriadou et al., 2015; Papastavrou et al., 2016). Similarly, clinical learning environments that supported clinical learning objectives resulted in more confident nursing students (Eraydın & Karagözoğlu, 2017).

The findings of this study revealed that students at a more senior level (fourth-year) were given the opportunity to make decisions and negotiate. However, the decision-making skill needs to be developed at the third-year level for students to learn this vital skill at an earlier stage of learning. The fact that 57.5 % (n = 46) of the third-year group reported that there were few opportunities for a student to pursue his/her particular interest in the clinical ward as compared to the fourth-year group may discourage them from developing the skill of autonomy early on in their careers. An earlier study by Eraydın & Karagözoğlu (2017) indicated that one of the challenges in nursing education is the need to deliver programmes that encourage autonomy, given the increasingly heterogeneous nature of the student population.

4.6. Organisation and clarity of activities in the clinical learning environment

Nearly-two-thirds of the respondents, 64.2 % (n = 140), reported that nursing staff in the clinical environment are often punctual, about 47 % (n = 102) indicated that preceptors often get side-tracked instead of sticking to the point, and 45.9 % (n = 100) stated that clinical placements were disorganized. In this study, half of the students experienced a certain level of clarity and organization across their clinical experiences, while others did not consistently receive this level of clarity. These findings are consistent with those of Blaich, Wise, Pascarella and Roksa (2016), who identified that large populations of college students experience a lack of clarity and organization in clinical learning environments. This is a domain that requires further investigation. However, it is the authors hypothesis that more positive clinical learning experiences can be ensured through educators' intervention to improve on the lack of clarity and disorganization experienced by learners as supported by Blaich et al. (2016).

This study, therefore, highlighted the importance of the clinical facilitator being clinically competent and organizationally adept. Highly competent clinical facilitators are knowledgeable about their fields, skilful, and professional (Collier, 2017). Regardless of how well-meaning a clinical facilitator may be, disorganization can result in unsuccessful facilitation. Clinical facilitators do not have to be excellent at organization, but they do have to be able to organize their tasks well enough to provide time for teaching. An equally vital trait for the clinical supervisor to have is the ability to organise their thoughts well enough to explain them to learners (Bigdeli et al., 2015; Collier, 2017; Najafi Kalyani et al., 2019).

Less than half of the respondents, 39.4 % (n = 86), understood the ward assignments clearly and knew exactly what needed to be done in the ward. A small proportion, 19.3 % (n = 42), of third-year students and 26.3 % (n = 25) of fourth-year students reported that their workloads were carefully planned. The theme of disorganization and lack of clarity was again evident in this study's findings and is possibly owing to the clinical facilitator failing to provide clear and detailed instructions to students as similarly found in a study by Bigdeli et al. (2015).

Mokadem and Ibraheem (2017) similarly found that nursing students are increasingly eager to participate in clinical activities when they receive clear and organized direction prior to and during engagement in the clinical learning environment. This study's findings indicated that students lack clear and well-organized instruction for their time spent in the clinical learning environment.

5. Conclusion

The aim of this study was to examine nursing students' perceptions of the clinical learning environment at a university in South Africa. The findings highlighted that, generally, students perceived their clinical learning environment as satisfactory. The findings indicated that educators strive to employ interesting and innovative methods to teach nursing students. Although the findings indicated that clinical educators' do make the effort to create an innovative and interesting clinical learning environment to stimulate learning, there is a need to include other models of teaching and learning to encourage individualization, innovation, involvement, personalization, and task orientation. Furthermore, the findings revealed that there is room for improvement and that additional enhancements are required in certain aspects of the clinical learning environment.

6. Study limitations

As with many studies, this study was conducted with a sample from one School of Nursing. Lack of financial support and time constraints resulted in a small sample size of 218 participants. Thus, generalisability beyond the study context should be done with caution.

7. Implications for nursing education and future research

Although it is acknowledged that maintaining a positive clinical learning environment for nursing students is a complex and challenging task given the daily demands of ward activities and shortages of nursing staff, hospitals need to take steps to ensure that learning opportunities are created for nursing students. The findings of this study are pivotal in terms of providing a snapshot of the clinical learning environment from the students' perspective in a South African context. Likewise, the implications arising from this study include the need to improve the following:

- The clinical learning experiences of nursing students: this includes creating a supportive clinical environment, providing adequate learning opportunities, and providing prompt feedback on clinical learning.
- The rigid clinical learning structure: this include allowing more flexibility in terms clinical learning hours and clinical allocations.
- Interaction between students and clinical facilitators: including showing interest in the nursing students' learning process as well as increasing the time clinical facilitators spend with nursing students.

Notwithstanding the fact that this study revealed useful results that could be used to enhance the clinical learning environment for nursing students, more studies should be conducted with the aim of exploring this complex phenomenon further. The authors recommend that future studies should include a broader population inclusive of various stakeholders such as nurse managers, clinical facilitators, curriculum developers, and learning and teaching experts. This could be executed by employing various inquiry methodologies such as mixed- and multi-method approaches. It would be interesting to understand the clinical learning environment from the perspective of nurse managers and clinical facilitators.

Author contributions

C.J. (University of the Western Cape): Primary student researcher; was responsible for the conceptualisation of the study, data collection, data analysis and discussion; manuscript writing.

M.B (University of the Western Cape): was the study leader, supervised the conceptualisation of the study and guided the methodology for the study.

K.D.T.M: (University of the Western Cape): Review and Editing.

Declaration of Competing Interest

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