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RESEARCH ARTICLE

NURSING STUDENTS' PERCEPTION REGARDING PRACTICAL LEARNING AND THEORY-PRACTICE GAP

[1,2,*]Elham Youssef Elhanafy and [2,3]Marwa R. Moustafa

[1]Assistant Professor of Nursing Administration, Faculty of Nursing Damanhur University, Egypt
[2]Associated Professor of Nursing Administration, Faculty of Nursing, Taibah University, KSA
[3]Assistant Professor of Medical Surgical Nursing, Faculty of Nursing Benha University, Egypt

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ABSTRACT

The nursing profession contains two main parts, the first is the theoretical part, which reflects the knowledge that is received in the classroom; while the second is the practical part, which focus on the enhancement of the students' skills in the clinical area. The aim of the present study is not only to evaluate the theoretical learning Gap perceived by Nursing students, but also to evaluate the practical one. The present study represents a descriptive design, includes 300 nursing students enrolled in Nursing College, Taibah university, Saudi Arabia (half of them of age ranging from 18 to 23 years and the other half have previous qualification). The results indicate that the Cronbach's alpha value ranged from 0.65α to 0.86α, which is acceptable. In addition, the results showed that the instrument is reliable, all the subscales were a statically significant at P≤0.05. It could be concluded that this study supports the need of reconsideration in the practical skills training in nursing education, as well as emphasized to observe gap in the knowledge and the practicing among nursing students.

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INTRODUCTION

For many decades there has been ongoing argumentation about what it means to be a competent nurse and how clinical competence develops and is assessed (Sally, 2014). Currently, providing nursing care with high quality is a requirement which count on the nursing competency. So Clinical nursing competency is qualification and competence in the areas of psycho-physical, clinical skills, critical thinking, cognitive, problem solving and power to promote education through academic learning and clinical experience, leading, eventually, to standards and safe care (Sally *et al*., 2014; Safadi *et al*., 2010). The last thirty years converge on dynamic nursing teaching from hospitals to the colleges. Other point of view width that nursing is a practice discipline and the students' clinical practice is considered to be the essence of nursing teaching (Jonsén *et al*., 2013) It was put that theory as being complementary to practice and they anticipate more concentration on taught in the practical area (Landers, 2015). This opinion was originated from the ability of clinical education to provide students with real life events that enable them to develop apply and evaluate their own understanding of concepts being studied (Ranse and Grealish, 2007).

Corresponding author: [1,2]Elham Youssef Elhanafy,
[1]Assistant Professor of Nursing Administration, Faculty of Nursing Damanhur University, Egypt, [2]Associated Professor of Nursing Administration, Faculty of Nursing, Taibah University, KSA

However, another author did not eliminate the importance of theory in nursing education (Stockhausen, 2005). They emphasize that theory provides students with the chance to structure a zone of powerful examples that acquired from trail (Ahmad Saifan *et al*., 2015). On other hand, The nursing profession is composed of two main parts: first one; the theoretical part which reflects the knowledge that is received in the faculty, which defined as a set of principles devised to elucidate a lot of fact or phenomena, particularly one that has been repeatedly examined or is generally recognized and can be used to make predictions about naturalistic phenomena. This part should provide the basis for understanding the reality of nursing (Nabolsi *et al*., 2012). In faculty, nursing students are educated the theoretical basis for all procedures, diseases, interpersonal skills and requirements to be a nurse. The second part; practical part which focus on enhancing skills in the clinical setting, that defined as act of doing something; performance or action (Mnal, 2014). Likewise, the practical part equips nursing students with a mechanism to extend classroom learning into the nursing practice environments (McKenna and Willard, 2009). Both of these are part of improving nursing and health care system. The relationship between theory and clinical practice, both internationally and nationally, has always been a concern in nursing education. Many authors have s proposed that education in the clinical environment participates in molding the professional

development of student nurses (Budgen and Garmoth, 2008). But, many studies have pointed out the discrepancies between theory and practice (Ehrenberg and Haggle, 2007). Furthermore, the literature show there is a gap between the theory and training components of teaching nursing (Allan, 2011; Chan, 2013; Landers, 2000; McKenna and Willard, 2009). sundry reasons for this gap, 1) using abstract meanings to clarify some procedures in the clinical setting students found it; 2) difficult to connect what they learned in the classroom with the facts they faced in the complex clinical setting, 3) the complexity and the continuous change in the clinical area (Nabolsi *et al*., 2012; Chan, 2013), 4) The development in nursing education and the move across higher education also increased the gap (Fairbrother and Ford, 1998; McKenna and Willard, 2009) and 5) The clinical instructor's behavior during the practical learning may either support or block the learning and practice of student nurses (Clark and Holmes, 2007; Maben *et al*., 2006; Sedgwick and Yonge, 2008).

As well, from the student perspective the theory practice gap has been noted as; 1) demanding and sometimes left them confused and uncertain about their roles and practice (Ousey and Gallagher, 2007), 2) the clinical instructors were not qualified enough to meet their needs, 3) The instructors did not know how to deal with students and how to be supportive for them and 4) the laboratories on models was totally different from the real complex clinical setting. Moreover, student perceptions of link between skills taught at faculty and those used in clinical practice are important in ensuring that students are adequately willing for clinical placement and that consistency exists to ensure safe practice (Ajani and Moez, 2011). Thus, it could be argued that even very effective theoretical education in the academic context can be of little use when the student facing the complexities of the clinical situation (Smith *et al*., 2007). Whyte *et al*. 2009, suggests that cognitive mechanisms and skills required for excellent and expert level rendering gained through deliberate practice, for this reason, the researchers conducted this study to explore the nursing students' perception related to practical learning and the existence of theory practice gap in their education.

Significant of study

Prior literature found an evident gap between theory and practice in nursing teaching and training (Hartigan *et al*., 2009). That phenomenon was substantive as a gap between what is educated' and skilled' in nursing", where the theory focuses on what the best for patient care, however the clinical teaching concentrate on the actuality of nursing action.

Subjects and methods

Aim of the study

The aim of the present study is not only to evaluate the theoretical learning Gap perceived by Nursing students, but also to evaluate the practical one.

Research questions

1. Is there a positive relationship between theory and practical?
2. Is a demonstration the most teaching strategy used by clinical teacher?

Subjects and methods

Study design and setting

Descriptive design was utilized in this study. The study was conducted in Nursing College at Taibah University (Saudi Arabia).

Subjects of the study

The subjects of the present study included nursing students enrolled in Nursing College - Taibah University . The actual number of nursing students 300 from 500 from four, sixth and eighth levels' because courses with clinical practice included in the curriculum of these academic years.

Exclusion criteria

Nursing students (matinee and bridge) at first and second level because courses with clinical practice were not included in the curriculum of the mentioned academic levels.

Tool of the study

The questionnaire that utilized in this study adapted from (Nxumalo 2011)

(1) Responses on demographic profile which contained socio-demographic data of nursing students included their age, social status and previous qualification.
(2) Responses on practical learning which comprised information that reflecting perception of nursing students to practical learning, clinical practice experience and availability of sufficient resources during clinical practice (18 items).
(3) Responses on learning strategies preferences, which consisted of perception of nursing students toward their preferred learning strategies (14items).
(4) Responses on assessment, which screened perception of nursing students toward formative and summative assessments as well as barriers, encountered during assessment (11 items).
(5) Responses on theory practice gap which covered perception of nursing students to aspects inducing theory-practice gap as differences between the simulated skills and the actual clinical procedures in the wards, teaching strategies used by the nurse educator and discussion between nursing students and nursing educator and preceptor about the application of theoretical subjects on the practical training (15 items).

Scoring System

- Section (1): frequencies, percentage.
- Section (2): It is a likrt like scale with two options of yes (2 marks) or no (1 mark).
- Section (3): It is a likert like scale with two options of yes (2 marks) or no (1 mark).
- Section (4): It is also a likert like scale with two options of yes (2 marks) or no (1 mark).
- Section (5): It is a likert like scale with five options; all the time (4) marks, sometimes (3) marks, don't known (2) marks, least time (1) mark and never (0) mark

Methods of data collection

The approval to conduct the study will be obtained from Dean of Nursing College in Taibah University (Saudi Arabia). after clarifying the aim of the study to help in the study conduction and facilitate data collection. The sample will be notified about the purpose of the study and about the right to accept or refuse to participate. Complete confidentiality of any obtained information will be ensured. They further handed with the study instrument and a full explanation provided on how to fill the instrument. 2-Development of the tools after review of literatures.

Validity

The developed instrument tested for its content validity through five expert's who revised the tools for clarity, relevance, applicability, comprehensiveness, understanding, and ease for implementation and according to their opinion minor modifications was applied.

Ethical consideration

Written consent was obtained from students' to agree to participate in the present study.

Pilot study

A pilot study conducted in (10 %) of the total sample size, who were selected randomly, in order to test the relevance; language clarity and applicability of the study tool; and to estimate time needed to complete the initial tool. Based on the pilot study, the modifications were applied as translate the questionnaire into Arabic. The change needed well done.

Data collection

The duration of data collection was four year starting January 2016-April 2016.

Statistical design

Data were collected and fed to statistical package of social sciences (SPSS) version 20 at the survey was checked and entered into a database on a personal computer. Descriptive statistics including frequency, percentage, mean and standard deviation were used to describe different characteristics such as the reliability analysis for internal consistency of questionnaire "The Cronbach's alpha value", the univariate analyses including: ANOVA test was used to test the significance of results of quantitative variables and the significance of the results was at the 5% level of significance.

Table 1. Socio-demographic characteristics

Items		No	%	X^2	P value
Age	18-23	150	50.0	60.6	.000*
	24-29	109	36.3		
	>30	41	13.7		
	Total	300	100		
Marital status	Married	107	35.7	164.5	.000*
	Single	187	62.3		
	Divorce	6	2.0		
	Total	300	100		
Previous qualification	Yes	150	50.0	0	^{MC}P=1.000 (insignificant)
	No	150	50.0		
	Total	300	100.		

X^2: Chi-Square test ^{MC}P: Monte Carlo corrected P-value *significant at P≤0.05

As the table shown that; half of the sample was in age group 18-23 years old (50.0%) with significant differences (X^2=60.6,P=.000*), more than two third of the sample was single (62.3%) with significant differences (X^2=164.5,P=.000*), also the table shows that 50% of the sample had previous qualification with insignificant differences (X^2=0, ^{MC}P=1.000).

Table 2. Responses of nursing students on clinical practice experience

Practical learning, clinical practice experience items	No		Yes		Total	
	No	%	No	%	M (SD)	Significance test
Orientation to the clinical practice prior to placement in the wards.	136	45.3	164	54.7	1.55 (.499)	X^2=2.61 P=.106
Orientation by senior professional nurse in the ward.	188	62.7	112	37.3	1.37 (.484)	X^2=19.25 P=.000*
Orientation by clinical teacher.	98	32.7	202	67.3	1.67 (.470)	X^2=36.05 P=.000*
Orientation by nursing educator.	127	42.3	173	57.7	1.58 (.495)	X^2=7.05 P=.008*
Availability of lists of planned activities on arrival in the clinical setting.	130	43.3	170	56.7	1.57 (.496)	X^2=5.33 P=.021*
Supervised by clinical teacher.	71	23.7	229	76.3	1.76 (.426)	X^2=83.21 P=.000*
Supervised by nursing educator.	168	56.0	132	44.0	1.44 (.497)	X^2=4.32 P=.038*
Supervised by a 'Senior professional nurses in the ward.	225	75.0	75	25.0	1.25 (.434)	X^2=75.0 P=.000*
Supervision occurs all the time.	194	64.7	106	35.3	1.35 (.479)	X^2=25.81 P=.000*
Clinical instruction helping me to master skills.	177	59.0	123	41.0	1.41 (.493)	X^2=9.72 P=.002*

X^2: Chi-Square test *significant at P≤0.05

The table revealed that the responses on "Supervised by clinical teacher "had the highest mean (Mean=1.76, SD=0.42) with 76.3% of the sample answered Yes, with significant differences(X^2=83.21,P=.000*). Whilst the responses on "Supervised by a 'senior professional nurses in the ward" had the lowest mean (Mean=1.25, SD=0.43) with 75% of the sample answered No with significant differences(X^2=75,P=.000*). Also the table shows that Responses of nursing students on clinical practice experience were statistically significant at **P≤0.05, except** responses on "Orientation to the clinical practice prior to placement in the wards" was insignificant with significant differences (X^2=2.61, P=.106)**.**

Table 3. Responses of nursing students on availability of resources during clinical practice

Availability of sufficient resources items	No		Yes		Total	
	No	%	No	%	M (SD)	Significance test
Availability of adequately prepared simulation laboratory.	248	82.7	52	17.3	1.17 (.379)	X^2 =128.0 P=.000*
Models for simulated learning experiences.	222	74.0	78	26.0	1.26 (.439)	X^2 =69.12 P=.000*
Monitors.	258	86.0	42	14.0	1.14 (.348)	X^2 =155.5 P=.000*
Availability of instruments or written procedures to follow during simulation sessions.	268	89.3	32	10.7	1.11 (.309)	X^2 =185.6 P=.000*
Other resources.	96	32.0	204	68.0	1.68 (.467)	X^2 =38.88 P=.000*
Insufficient provision of nursing educators.	170	56.7	130	43.3	1.43 (.496)	X^2 =5.33 P=.021*
Insufficient provision of clinical teacher.	252	84.0	48	16.0	1.16 (.367)	X^2 =138.7 P=.000*

X^2: Chi-Square test *significant at P≤0.05

The table illustrates that the Responses on "Other" resources." Had the highest mean (Mean=1.68, SD=0.46) with 68% of the sample answered Yes with significant differences (X^2=38.8, P=.000*), Responses on "Availability of instruments or written procedures to follow during simulation sessions." Had the lowest mean (Mean=1.11, SD=0.30) with 89.3% of the sample answered No with significant differences (X^2=185.6,P=.000*). Also the table appears that all the Responses of nursing students on availability of resources during clinical practice were statistically significant at P≤0.05.

Table 4. Responses of nursing students on formative and summative assessment

Formative & summative assessments items	No		Yes		Total	
	No	%	No	%	M (SD)	Significance test
The use of formative assessments.	95	31.9	203	68.1	1.68 (.467)	X^2=39.14 P=.000*
In formative assessments, skills demonstrated on patients.	245	81.7	55	18.3	1.18 (.388)	X^2=120.3 P=.000*
In formative assessments, skills demonstrated by simulation.	197	65.7	103	34.3	1.34 (.476)	X^2=29.4 P=.000*
It provided feedback on my progress.	240	80.0	60	20.0	1.20 (.401)	X^2=108.0 P=.000*
It re-enforced my learning.	176	58.7	124	41.3	1.41 (.493)	X^2=9.01 P=.000*
I did not know what to expect.	153	51.0	147	49.0	1.49 (.501)	X^2=0.120 P=.729
I experienced a lot of stress during assessments.	82	27.5	216	72.5	1.72 (.447)	X^2=60.25 P=.000*
At the end of a course.	138	46.0	162	54.0	1.54 (.499)	X^2=1.92 P=.166
To test my comprehension of the subject field.	160	53.3	140	46.7	1.47 (.500)	X^2=1.33 P=.248
I was prepared for the examination.	171	57.0	129	43.0	1.43 (.496)	X^2=5.88 P=.015*
My level of competence was assessed.	172	57.3	128	42.7	1.43 (.495)	X^2=6.45 P=.011*

X^2: Chi-Square test *significant at P≤0.05

The table demonstrates that the responses on "I experienced a lot of stress during assessments." Had the highest mean (Mean=1.72, SD=0.44), with 72.5% of the sample answered Yes, with significant differences(X^2=60.25,P=.000*). Whilst the responses on" In formative assessments, skills demonstrated on patients." had the lowest mean (Mean=1.18, SD=0.38), with 81.7% of the sample answered No, with significant differences (X^2=120.3, P=.000*). As the table shown that; responses on "I did not know what to expect." At the end of a course" , and "To test my comprehension of the subject field." Were statistically insignificant differences (P>0.05).

Table 2. Responses of differences between the stimulated skills & the actual clinical procedures, teaching strategies used by the nurse educator & the application of theoretical subjects on the practical training

Aspects of theory-practice gap items	No		Yes		Total	
	No	%	No	%	M (SD)	Significance test
Encouragement to discuss aspects of practical experience in class with the nurse educator.	171	57.0	129	43.0	1.43(.496)	X^2 =5.88 P=.015*
Help me to search for connections to my previous experiences.	206	68.7	94	31.3	1.31(.465)	X^2 =41.81 P=.000*
Compare my clinical experiences with what I learn in theory.	193	64.3	107	35.7	1.36(.480)	X^2 =24.65 P=.000*
Discussion of subjects by the nurse educator periodically.	178	59.3	122	40.7	1.41(.492)	X^2 =10.45 P=.001*
Demonstration.	156	52.3	142	47.7	1.48(.500)	X^2 =0.658 P=.417
Group discussion.	116	38.7	184	61.3	1.61(.488)	X^2 =15.41 P=.000*
Lectures.	33	11.0	267	89.0	1.89(.313)	X^2 =182.5 P=.000*
Compare theoretical knowledge with what I do in practice.	184	61.3	116	38.7	1.39(.488)	X^2 =15.41 P=.000*
Clarify difficult concepts.	81	27.0	219	73.0	1.73(.445)	X^2 =63.4 P=.000*
Apply the nursing process more comprehensively.	205	68.3	95	31.7	1.32(.466)	X^2 =40.33 P=.000*
There's a gap between theoretical knowledge and practical skills.	68	22.7	232	77.3	1.77(.419)	X^2 =89.65 P=.000*
Aseptic technique is maintained during simulation and not done in the real practice setting.	199	66.3	101	33.7	1.34(.473)	X^2 =32.01 P=.000*
During simulation one uses imagination and in the real practical setting one becomes clear.	120	40.3	178	59.7	1.60(.491)	X^2 =11.28 P=.000*
Not all theoretical knowledge can be applied in practical skills.	76	25.5	222	74.5	1.74(.437)	X^2 =71.53 P=.000*

X^2: Chi-Square test *significant at P≤0.05

The table shows that the responses on "Lectures." Had the highest mean (Mean=1.89, SD=0.31), with 89% of the sample answered Yes, with significant differences (X^2=182.5, P=.000*). Whereas, the responses on "Help me to search for connections to my previous experiences." Had the lowest mean (Mean=1.31, SD=0.46), with 68.7% of the sample answered No, with significant differences (X^2=41.81, P=.000*). Also the table appears that Responses of nursing students on aspects inducing theory-practice gap were statistically significant at P≤0.05, except the responses on "Demonstration." Were insignificant (X^2=0.65,P=.417).

Table 3. Response of nursing students on practical learning

Perception of nursing students toward their preferred learning strategies	N	R	IK	ST	A	Total
	No (%)	No (%)	No (%)	No (%)	No (%)	M (SD)
Simulation laboratory found at the nursing college.	48(16.0)	60(20.0)	36(12.0)	93(31.0)	63(21.0)	3.21 (1.39)
Availability of access to the simulation laboratory.	54(18.0)	84(28.0)	36(12.0)	80(26.7)	46(15.3)	2.93 (1.37)
Nurse educator.	17(5.7)	47(15.7)	21(7.0)	91(30.3)	124(41.3)	3.86 (1.26)
Clinical teacher.	8(2.7)	32(10.7)	27(9.0)	100(33.3)	133(44.3)	4.06 (1.09)
Teaching strategies used by clinical teacher.	2(0.7)	2(0.7)	8(2.7)	44(14.7)	244(81.3)	4.75 (.60)
Lectures.	24(8.0)	65(21.7)	2(0.7)	141(47.0)	68(22.7)	3.55 (1.27)
Group discussions.	13(4.3)	69(23.0)	5(1.7)	137(45.7)	76(25.3)	3.65 (1.20)
Demonstration.	25(8.3)	60(20.0)	24(8.0)	96(32.0)	95(31.7)	3.59 (1.33)
Demonstration of skills by the supervisor.	47(15.8)	110(36.9)	10(3.4)	78(26.2)	53(17.8)	2.93 (1.40)
Availability of opportunity to practice skills during simulation sessions.	78(26.0)	58(19.3)	40(13.3)	98(32.7)	26(8.7)	2.79 (1.36)
Availability of feedback on performance after the Simulation sessions.	100(33.3)	50(16.7)	38(12.7)	75(25.0)	37(12.3)	2.66 (1.46)
I gained more confidence to perform a skill.	54(18.0)	28(9.3)	45(15.0)	74(24.7)	99(33.0)	3.45 (1.47)
Clinical accompaniment is beneficial to my professional growth.	68(22.7)	52(17.3)	17(5.7)	87(29.0)	76(25.3)	3.21 (1.39)

N=Never, **R**=Rarely, **IK**=I Don't Know, **ST**=Sometimes, **A**=Always

As the figure shown that; the responses on "Teaching strategies used by clinical teacher." Had the highest mean (Mean=4.75, SD=.60) with 81.3% of the sample answered "ALWAYES", whereas the responses on "Availability of feedback on performance after the Simulation sessions." Had the lowest mean (Mean=2.66, SD=1.46)) with 33.3% of the sample answered "NEVER".

Table 4. Descriptive of Subscales (ANOVA & Reliability Tests)

Subscales	N	á	Mean items	Mean scale	SD scale	Significance test
1. Practical learning, clinical practice experience	10	.69	1.49	14.9	2.4	F=39.9 P=.000*
2. Availability of sufficient resources	7	.65	1.27	8.9	1.6	F=100.0 P=.000*
3. Formative & summative assessments	11	.65	1.44	15.9	2.4	F=44.5 P=.000*
4. Aspects of theory-practice gap items	14	.78	1.52	21.3	3.3	F=65.1 P=.000*
5. Perception of nursing students toward their preferred learning strategies	13	.86	3.4	44.6	10.4	F=85.7 P=.000*

F: ANOVA test *significant at P≤0.05 α: Reliability (Alpha) N: number of items

The table illustrates that; The Cronbach's alpha value ranged from (.65α to .86α) which are acceptable, the result showed that the instrument is reliable. Also the table shows that all the subscales were a statically significant at P≤0.05.

DISCUSSION

Nursing graduates expected to provide compassionate, safe, and effective care in multiple settings while keeping abreast of rapid advances in healthcare (Benner *et al*., 2010). Nurses are accountable for delivering high quality, evidence-based, patient-centered care to diverse populations of all ages ((IOM) 2010). Nursing care is determined by the way nurses use knowledge and skills to appreciate the uniqueness of the person they are caring for (Warelow *et al*., 2008). The current study conducted in Nursing College, Taibah University among three hundred of nursing students, which they were between 18 to 30 years old, The findings of the present study revealed that; half of the sample was in age group 18-23 years old, more than two third of the sample was single, also half of the sample had previous qualification.

Responses on clinical experience

The most (54.7%) of nursing students in this study indicated that they have been oriented to the clinical practice prior to clinical placement. These findings similar to results of the study conducted by Manal that her study found that; the majority of nursing students indicated that they have been oriented to the clinical practice prior to clinical placement (Manal, 2014). Also the results of current study consistent with the results in a study conducted by Nxumalo who found that student nurses are orientated prior to placement in the clinical areas (Nxumalo, 2011). While the results of this study indicated that the majority (67.3%) of nursing students oriented to the clinical setting and supervised by their clinical Teachers. These results in line with the findings of Manal study who found that nursing students oriented to the clinical setting and supervised by their clinical preceptors (Manal 2014), whereas contradicted with the findings of Nxumalo who reported that many of the student nurses orientated by the senior professional nurses in the wards (Nxumalo, 2011). In addition, Carson and Carnwell found that orientation was undertaken by nurse educators (Carson, 2007).

Nursing students in this study noted that there were lists of planned activities on arrival in the clinical setting. These results opposed the results of Manal who found that there were no lists of planned activities on arrival in the clinical setting (Manal, 2014), whilst the results in this study similar to findings of Nxumalo who revealed that most of the respondent given lists of planned activities (Nxumalo, 2011). Respondents of this study further reported that had inadequate supervision from clinical preceptors because of the shortage in the college staff and each preceptor supervised many students; "64.7% Supervision not occurs all the time". The study of Manal and Nxumalo supported this result, in their studies; supervision reported as inadequate for guidance and support of student nurses (Manal 2014), (Nxumalo, 2011). Were, these results related to shortage in number of nursing educators and clinical preceptors compared to the number of the students and the job tasks assigned to them (Manal, 2014).

Responses on availability of resources

Most of nursing students in the current study were of the opinion that there were insufficient resources during placement in the clinical practice as models for simulated learning experiences, equipment and instruments. These results in line with Nxumalo and Manal which they found the majority of the student nurses reported that there were insufficient resources

during placement in the clinical practice (Manal, 2014), (Nxumalo, 2011). Results of this study indicated shortage in human resources, mainly clinical preceptors and nursing educators and clinical preceptors were more available than nursing educators were, these results related to shortage in number of nursing educators and clinical preceptors compared to the number of the students and the job tasks assigned to them. The same results recorded in the study of Nxumalo. Findings of different researchers are not consistent with the above results as the nurse educators and clinical preceptors reported as not available due to large number of student nurses to supervise, lack of time and overload of academic work (Carson, 2007), (Mabuda *et al*., 2008). However, Hennessy *et al*. asserted that adequate staff and equipment in training enhances the standard of clinical training (Hennessy *et al*., 2006). In their study, Dee and Stanley found student nurses prefer human resources and print resources to electronic resources in clinical practice however, they suggest that talking to nurse educators and clinical preceptors can be the first step in highlighting these teachers awareness to interests in specific topics and subjects.

Responses on formative and summative assessments

Nursing students in the current study signified that formative assessment used in their clinical practice, these results supported by (Bartfay, 2004), Nxumalo and Manal who noted that Many of student nurses indicated skills demonstration on patients as the preferred strategies that used during formative assessment for clinical competencies (Manal, 2014), (Nxumalo, 2011). More than half of respondents were of the opinion that formative assessment re-enforced their learning while only 20% of them viewed it as providing feedback on their progress. These results almost similarity findings of Manal (Manal, 2014), whilst the results of current study disagreed by studies done by Quinn and Hughes and Nxumalo who viewed that the majority of the student nurses are of the opinion that formative assessments test their clinical and theoretical knowledge followed by provision of feedback on their progress (Nxumalo, 2011; Quinn, 2007). Regarding barriers encountered during formative assessments, the majority of respondents were of the opinion that they experienced a lot of stress during assessments while nearly half of them did not know what to expect, these findings in line with the study conducted by Manal (Manal 2014). On the other hand, the researches represented other barriers to formative assessments. While Nxumalo reported that many of the student nurses felt that, some assessors were stricter than the others were and that assessment done only periodically (Nxumalo 2011). Respecting summative assessment, more than two third of nursing students in this study noted that the summative assessment conducted at the end of the courses while more than half of them signified that it test their comprehension of the subject field. The results of this study nearly similarity the findings of Manal (Manal, 2014). Also, the current study results confirmed by Nxumalo as student nurses were of the opinion that summative assessments done at the end of the course to indicate whether they have passed or failed (Nxumalo, 2011). Concerning barriers of the summative assessment, nursing student were of the opinion that it did not assessed their level of competence and they were not prepared for the examination. The study by Manal supported these findings (Manal, 2014). While Nxumalo viewed that many of the student nurses revealed that not providing feedback after summative assessment as a major barrier (Nxumalo, 2011).

Responses on aspects inducing theory-practice gap

Based on results of the current study, more than half of respondents reported that they were not encouraged by nursing educator to discuss aspects of practical experience in class during theoretical instruction. These results contradicted the findings of Manal as the majority of respondents reported that they encouraged by nursing educator to discuss aspects of practical experience in class during theoretical instruction but in a long intervals (Manal, 2014). Regarding aspects that learned through the discussion with the nurse educators, only one third of respondents in this study specified that discussion assisted them to find a link between the theory and practical learning, whereas, in the study of Manal half of respondents specified that discussion assisted them to find a link between the theory and practical learning (Manal, 2014). In the study of Nxumalo, the majority of student nurses directed that discussions of the meaning of clinical experiences during theoretical instructions helped them to link theory with practice (Nxumalo, 2011). Nickitas mentioned that nurse educators must model moral courage for student nurses as well as ways to address problems directly rather than ignore them. “Sidestepping problems and broken systems can lead only to greater frustration and disappointment”, Speaking and listening to students for the express purpose of enhancing relationships is valuable (Nickitas 2008). Majority of respondents in this study identified lectures as the most commonly used teaching strategy by nursing educators followed by group discussion. These findings in line with results' study of Manal which she identified lectures as the most commonly used teaching strategy by nursing educators followed by demonstration and group discussion (Manal, 2014). While in the study of Nxumalo, many of the student nurses indicated group discussion followed by lectures as a teaching strategies used by nurse educators (Nxumalo, 2011). Flanagan and McCausland acknowledged that to think critically and function effectively in a complex and dynamic professions such as nursing, many learning skills are necessary for knowledge acquisition and information processing. Teaching around the cycle encompasses traditional lectures, active learning strategies, collaborative learning, and problem solving as a balanced and effective approach to teaching (Flanagan, 2007). Concerning encouragement by clinical preceptors during clinical experience to talk about theoretical learning experiences instruction; more than two third of the respondents in this study did not encouraged to compare theoretical knowledge with what they do in practice. In addition, they did not encouraged applying the nursing process more comprehensively. These results inconsistent with the findings of Manal that she found; about half of the respondents were encouraged to compare theoretical knowledge with what they do in practice also they were encouraged applying the nursing process more comprehensively (Manal, 2014).

McKenna *et al*. further explained a form of reflection is to encourage student nurses to talk about their experiences in clinical practice, offer a more integrated approach to classroom theory and its application in practice. Majority of the nursing students in the current study revealed that there was a gap between the theoretical knowledge and the actual practice in the clinical setting (McKenna *et al*., 2009). Morgan and Carson and Carnwell were of the opinion that there were perceived differences by student nurses pertaining to the reality of practice and idealism of theory (Morgan, 2006; Carson, 2007). The researchers commented that the existence of theory-

practice gap in nursing has been an issue of concern for many years as it shown to delay student learning. While the study of Essani and Ali (2013) viewed the gaps between knowledge and practice, as perceived by the candidates, were classified into five major categories: (1) medication (34%), (2) skills (28.3%), (3) knowledge (13.36%), (4) handling of code blue and intubations (12.6%), and (5) operating medical devices (11.58%).

Responses on practical learning

According to this study, most respondents indicated that "sometimes/ always" was the simulation laboratory located at the Nursing College and there were an availability of access to it. Manal and Nxumalo further confirmed this result (Manal 2014), (Nxumalo, 2011). The majority of respondents in this study further indicated that "sometimes/ always" were they accompanied by clinical preceptor to the simulation laboratory, while in the study of Nxumalo; the students accompanied by nurse educator alone or with the clinical preceptor (Nxumalo, 2011). Morgan viewed the responsibility of accompaniment of student to the simulation laboratory nurses as both the nurse educators and clinical preceptors (Morgan, 2006). Respondents of this study revealed that "sometimes/ always" was the teaching strategies used for practical learning were alternating between demonstrations, lectures and group discussion. The results provide strong support for utilization of both lecture notes and structured group discussion. While Nxumalo showed that the majority of the student nurses indicated demonstration as the most used teaching strategies utilized by the clinical accompanist (Nxumalo, 2011). Anderson and Kiger explained that demonstrations help maximize student nurses' confidence in relation to social learning theory. A confidence building approach includes use of clinical demonstrations on models in simulation laboratories and accompanied by feedback, praise, humor, and mindfulness training. Sharing stories and experiences, as well as allowing students to practice during demonstrations leads to learning in a safe environment (Anderson, 2008). Pertaining to the results of the current study, most of respondents reported "Never/Rarely" that the demonstration of skills done by their supervisors in the simulation laboratory. These findings inconsistent results of the study conducted by Manal, who found most of the sample that the demonstration of skills done by their supervisors in the simulation laboratory (Manal, 2014). However, Jefferies and Rizzolo stated that qualified faculties who have trained in simulation assume the educator role during the simulated learning experience, clinical staff or staff specific to the patient simulation laboratory can play the educator role. In either case, it is important for the educator to have knowledge of the simulation and the material it covers (Jeffries, 2006). Hoffman *et al*. added that students participating in the simulated learning experience must come into the simulated clinical environment prepared for the simulation with a basic knowledge of the material and dressed appropriately for the clinical experience. In this study, nursing students revealed that they obtained feedback from their supervisors after the simulation sessions (Hoffmann, 2007). According to Hanson and Stenvig, positive feedback can increase self-esteem whereas negative feedback can discourage and frustrate the students (Hanson, 2008). Results of this study further presented that less than half of the nursing students had opportunity to practice skills during simulation sessions. These results in line with study of Manal (Manal, 2014), nevertheless, Scully was of the opinion that, mastering a skill in the classroom can help facilitate closing the theory-practice gap when applying the same skill to the clinical setting (Scully, 2011). The need for adequate practice time in a controlled setting in university laboratories is essential. These results were opposed to the findings of Nxumalo who revealed that the majority of student nurses had the opportunity to practice skills (Nxumalo, 2011). The simulated experience is not just a flat experience but also rather one rich with dimension (Lasater, 2007).

More than half of the nursing students in this study viewed that the clinical accompaniment was beneficial for them. While these results were incompatible with the previous study of Manalthat she found The majority of the nursing students in her study viewed clinical accompaniment had minimal benefits for them (Manal, 2014), whereas, the results of the current study similary to findings of Nxumalo who found the student nurses indicated that clinical accompaniment was beneficial towards professional growth (Nxumalo, 2011). In a study by Lasater it was found that the reaction of the students was favorable to the scenarios presented during simulation and students felt the simulation was a superior method to just reading about a particular disease or condition (Lasater, 2007).

Descriptive of Subscales (ANOVA & Reliability Tests)

The results illustrates that; The Cronbach's alpha value ranged from (.65α to .86α) which are acceptable, the result showed that the instrument is reliable. Also the study shows that the age, marital status and all the subscales were a statically significant at $P \leq 0.05$.

Conclusion

From the above study, one can conclude that this study supports the need to reconsideration in the practical skills training in nursing education, as well as emphasize to observe gap in the knowledge and the practicing among nursing students. It is clear that all theme mentioned by the students play an important role in nursing education in general. Further, educators and clinical preceptors must display the knowledge and skills required to promote theory-practice integration, to enhance nursing students' education, which in turn optimizes high standards of patient care relevant to clinical practice. Clinical skills laboratories are essential to help students develop the collaborative skills required for a profession like nursing.

Recommendation

1. Conducting continuing education for the faculty in principles of teaching & learning to enhance their teaching behavior & interpersonal skills.
2. Nursing education must reconsider current methods to practical learning & quest to invent methods to better prepare future nurses.
3. Reduce anxiety in students and help them work more effectively with the discrepancies.
4. Change in nursing practice should initiate with change in the educational curriculum of the nursing programs.
5. Nursing faculty should initiate change in the curriculum with a focus on changing and improving nursing practice as well as having a liaison between the education and the practice areas in the educational setting, as well as the clinical setting.
6. Improving collaboration between clinical areas and educational institutions and developing preceptors' lecturer role.

7. Faculties of nursing need to be concerned about supplying students with adequately prepared simulation laboratory and other needed resources.

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