Nursing students' perception toward their learning environment

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Abstract

Introduction: The quality of the learning environment is indicative of the effectiveness of an educational program on student learning, motivation, and learning outcomes. Students' perception of their learning environment may act as a basis for making necessary modifications for ensuring quality assurance. This study aimed to assess the perception of nursing students towards their learning environment.

Method: An analytical cross-sectional study was conducted in May 2020 among nursing students from Patan Academy of Health Sciences, Lalitpur, Nepal. Dundee Ready Education Environment Measure (DREEM) inventory was used for an online survey via Google form. Descriptive analysis was used to calculate students' learning perception; a one-way ANOVA was used to analyze the difference across four programs. The difference between first and final-year students' perceptions was tested using a t-test.

Result: Out of 289 participants, 200(69.2%) perceived their learning environment as more positive than negative. The mean score was 142.64 on the DREEM global score of 200. There was a significant difference in the perceptions in all the subscales across four nursing programs ($p < 0.05$) except in the learning subscale ($p = 0.24$). There was a significant difference in perception between first and final-year students across five subscales ($p < 0.05$) except for social self-perception ($p = 0.85$).

Conclusion: The study revealed that more than half of the nursing students perceived their learning environment as more positive than negative. There was a statistically significant difference in perception across all the nursing programs and between first and final-year students.

Keywords: DREEM Inventory, Educational Environment, Learning Environment, Nursing Students, Perception

Introduction

Creating a student-focused learning environment is essential to improve the educational outcome of any teaching institution.[1] Learning environment consists of a physical environment, teachers, and student support system that can motivate the learner's engagement.[2] Results from previous studies done in the Philippines,[3] Pakistan,[4] and Saudi Arabia[5] have shown that nursing students generally perceived their learning environment as more positive than negative. A study done in Nepal revealed that although nursing students had a positive perception of their overall learning environment, they perceived learning as more teacher-centered and that instructors are more authoritarian.[6]

School of Nursing and Midwifery, also known as Lalitpur Nursing Campus, is continuously providing nursing education in Nepal for 60 years. The number of nursing programs and students have increased over the years. Furthermore, in 2016, the college became a part of Patan Academy of Health Sciences after being affiliated to the Institute of Medicine, Tribhuvan University, for more than four decades. The findings from this study will help determine the areas that may need improvement in providing a conducive learning environment to enhance students' optimal learning. Therefore, this study aimed to assess the perception of nursing students toward their learning environment.

Method

This cross-sectional analytical study was conducted in May 2020 among the nursing students of Patan Academy of Health Sciences (PAHS). The School of Nursing and Midwifery (SoNM) has three undergraduate-level academic programs, namely, Proficiency Certificate Level (PCL), Bachelor of Science (B.Sc.) in Nursing, Bachelor in Nursing Science (BNS), and a graduate-level program, i.e., Master in Nursing (MN). The study population consisted of 295 first and final-year students of all four programs. The sample size was

calculated using G Power 3.1 for analysis of variance (ANOVA), and the required sample size was 280. However, all the students who were willing to participate were included in the study.

Data were collected after obtaining necessary permission from the Nursing Dean of PAHS-SoNM and ethical approval from the Institutional Review Committee, PAHS (IRC-PAHS, Ref nrs2004101362 dated 2020-04-10).

The instruments used for data collection comprised of two sections: (1) Proforma including student's academic program and academic year and (2) Dundee Ready Education Environment Measure (DREEM) Inventory, which has been validated in Nepal.[2] This tool was used to find out the Nepalese students' perception of their learning environment. The DREEM inventory consists of 50 statements on a 5-point Likert scale ranging from strongly agree=4, agree=3, uncertain=2; disagree=1, and strongly disagree=0. Nine items (4, 8, 9, 17, 25, 35, 39, 48, and 50) out of 50 were negative statements and thus scored reversely. The tool has five subscales; 1: students' perceptions of learning (12 items), 2: students' perception of teachers (11 items), 3: students' academic self-perceptions (8 items), 4: students' perception of the atmosphere (12 items), and 5: students' social self-perceptions (7 items). Some of the DREEM inventory tool items were modified in a simpler language without changing their original meaning for easy understanding. The following criteria were used to interpret the overall score; 0-50: very poor learning environment, 51-100: plenty of problems in the learning environment, 101-150: more positive than a negative learning environment, and 151-200: excellent learning environment. The five subscales have different criteria for scoring the students' perception of their learning environment, Table 2. Each item on the DREEM inventory that has a mean score of more than three can be interpreted as the strengths of the educational environment, whereas items having a mean of two or less should be considered problem areas. Finally,

items with a mean between two and three are the areas that could be enhanced.

Since the study was done during the first lockdown (2020) in Nepal due to COVID 19 pandemic, meetings with students from each class were arranged by the class coordinator via Google Meet to explain the study objectives and invite them to participate in the study. The data was collected electronically using Google Forms. A list of students' email information was obtained from the class coordinators of all the programs. The principal investigator sent the Google form consisting of a questionnaire and information sheet to individual students' email addresses. The information sheet had information related to the importance of the study, the intent to publish the findings in a scientific journal, and how to respond to the statements in the DREEM inventory. The anonymity of the participants was safeguarded by requesting them not to mention their names on the Google form. In addition, the participants were required to respond to a consent question in the Google form before proceeding to complete the questionnaire. Those who returned the filled forms were considered to have consented to participate in the study voluntarily. Students were not coerced into participating in this study. Also, it was assured that their response would not have any effect on their academic ground.

Data thus collected were analyzed using statistical software SPSS 16.0. Descriptive statistics including frequency, mean and standard deviation were used to determine the students' scores on the DREEM inventory. One-way analysis of variance (ANOVA) test was used to find out differences in the score of perception toward learning environment and its subscales across four nursing programs and academic years. An independent t-test was used to compare the difference in perception of students in the first year and final year within the same program.

Result

Out of the 295 Google forms sent, 289 completed forms were received. Thus, the response rate for this study was 97.96%. The students participated in this study included PCL (N=86, 29.8%), B.Sc. (N=80,2 7.7%), BNS (N=77, 26.6%), and MN (N=46, 15.9%). Among these students, 137(47.4%) were first-year students, whereas 152(52.6%) belonged to the final year. Overall, 200(69.2%) students perceived their learning environment as being more positive than negative, Figure 1. In addition, the mean score was 142.64 on the DREEM global score of 200 which falls on the more positive than a negative learning environment. The perception of the learning environment according to five subscales is presented in Table 1. Students' perception was positive in all the subscales, except in social self-perception, as 11.8% of them perceived that their learning environment was not a nice place

The mean score of three and above for individual items that indicated strengths of learning environment perceived by students included, I am encouraged to participate in class (M=3.42, SD=0.55), teaching on this campus helps in developing my competence (M=3.33, SD=0.62), teaching helps to develop my confidence (M=3.29, SD=0.68), I have learned a lot about empathy in my profession (M=3.29, SD=0.58), teachers are well prepared for teaching sessions (M=3.25, SD=0.68), and I feel I am well prepared for my profession (M=0.25, SD=0.58). There were only two items on the DREEM scale that indicated weakness in the learning environment having a mean score of less than two. I can ask questions I want to anyone on the campus (M=1.01, SD=0.90), and I seldom feel lonely when I am in the campus (M=1.99, SD=1.21). However, there were items on the subscales with a mean score between one and three needing enhancement, Table 2.

One-way ANOVA showed that there was a statistically significant difference across the nursing programs in all subscales (p=<0.01) except in perception of learning (p=0.24),

Table 3. Similarly, the t-test reveals that there was a significant difference among first-year and final year students of all the programs in their perception of the learning environment (p=<0.01) except in social self-perception (p=0.85), Table 4.
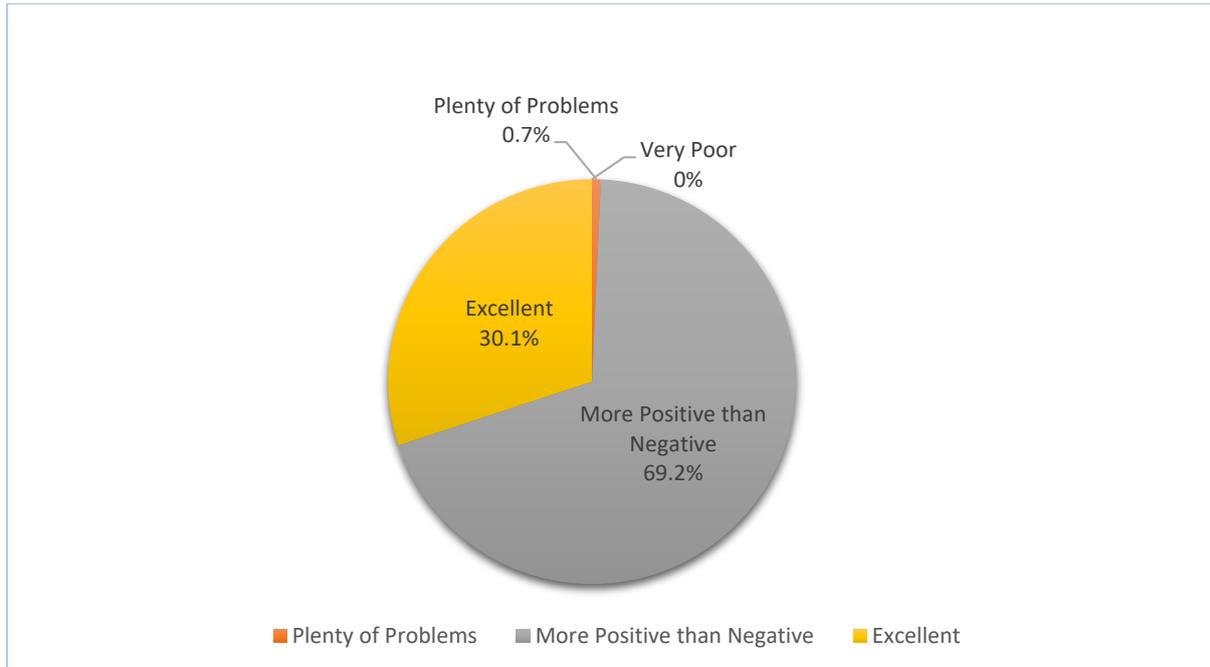

Figure 1. The overall perception of learning environment among nursing students (N = 289)

Table 1. Students' perception of their learning environment according to DREEM subscales (N = 289)

Subscale	Score range	N (%)	Mean Score	Mean (%)
Perception of Learning				
Very Poor	0-12	-		
Teaching is viewed negatively	13-24	4(1.4)		
A more positive perception	25-36	161(55.7)	35.87	74.73
Teaching highly thought of	37-48	124(42.9)		
Perception of Teachers				
Abysmal	0-11	-		
In need of some retraining	12-22	7(2.4)		
Moving in the right direction	23-33	172(59.5)	32.35	73.52
Model teachers	34-44	110(38.1)		
Academic Self-Perception				
A feeling of total failure	0-8	-		
Many negative aspects	9-16	5(1.7)		
Feeling more on the positive side	17-24	164(56.7)	23.89	74.66
Confident	25-32	120(41.5)		
Perception of Atmosphere				
A terrible environment	0-12	-		
There are many issues which need changing	13-24	15(5.2)		
A more positive attitude	25-36	239(82.7)	32.02	66.71
A good feeling overall	37-48	35(12.1)		
Social Self-Perception				
Miserable	0-7	1(0.3)		
Not a nice place	8-14	34(11.8)	18.51	66.11
Not too bad	15-21	220(76.1)		
Very good socially	22-28	34(11.8)		

Table 2. Mean score and standard deviation for items on DREEM inventory needing enhancement

Subscale	Item	Mean	SD
Perception of Learning	The teaching is too teacher-centered	2.28	1.06
Perception of Teachers	The teachers get angry in teaching sessions	2.59	1.06
Academic Self-Perception	I can memorize all I need	2.48	0.87
	The last course prepared me well for this course	2.72	0.83
Perception of Atmosphere	I can ask questions I want to anyone on the campus	1.01	0.90
	Cheating in exams is a problem on this campus	2.41	1.18
	The atmosphere is relaxed during ward teaching	2.52	0.94
	The enjoyment outweighs the stress of the course	2.54	0.84
	The course is well timetabled	2.67	0.92
	I find my experience on this campus disappointing	2.84	0.90
	I can concentrate well during classes and in my clinical postings	2.86	0.90
	The atmosphere is relaxed during seminars/presentations	2.88	0.90
Social Self-Perception	I seldom feel lonely when I am on this campus	1.99	1.21
	I am rarely bored with this course	2.05	1.15
	I am too tired to enjoy this course	2.44	0.99
	There is a good support system for students who get stressed on this campus	2.74	0.92

Table 3. One-way ANOVA to compare students' perception of learning environment across four nursing programs (N=289)

Subscale	Program	Mean	SD	F value	p-value
Perception of learning (max. score=48)	PCL	35.66	3.40	1.40	0.24
	B.Sc.	36.70	3.68		
	BNS	35.62	4.96		
	MN	35.30	5.56		
Perception of teachers (max. score=44)	PCL	32.95	3.82	6.41	0.00
	B.Sc.	33.37	4.02		
	BNS	30.74	4.39		
	MN	32.23	4.16		
Academic self- perception (max. score=32)	PCL	24.40	2.69	6.18	0.00
	B.Sc.	24.41	2.73		
	BNS	23.70	2.83		
	MN	22.30	3.90		
Perception of atmosphere (max. score=48)	PCL	32.45	3.56	3.44	0.01
	B.Sc.	32.88	3.93		
	BNS	30.85	4.80		
	MN	31.60	5.02		
Social self-perception (max. score=28)	PCL	18.08	2.95	11.16	0.00
	B.Sc.	17.07	2.86		
	BNS	16.48	3.40		
	MN	19.60	3.27		
Overall Perception on learning environment (Total score=200)	PCL	144.47	12.49	4.24	0.01
	B.Sc.	145.72	13.62		
	BNS	138.12	16.92		
	MN	142.66	14.96		

Table 4. Comparison of perception of a learning environment within nursing program according to the year of study using t-test (N=289)

Subscale	Academic year	Mean	SD	t- test value	p-value
Perception of learning	First Year	36.57	4.01	2.62	0.00
	Final Year	35.25	4.51		
Perception of teachers	First Year	33.59	3.67	4.97	0.00
	Final Year	31.25	4.27		
Academic self- perception	First Year	24.35	3.08	2.48	0.01
	Final Year	23.46	2.95		
Perception of atmosphere	First Year	32.81	4.00	3.04	0.00
	Final Year	31.28	4.47		
Social self-perception	First Year	17.65	3.26	.18	0.85
	Final Year	17.58	3.28		
Overall perception on Learning environment	First Year (137)	146.12	13.50	3.88	0.00
	Final Year (152)	139.54	15.11		

Discussion

Out of 289 participants, the majority (n=200,69.2%) rated the overall learning environment as "*more positive than negative*." Higher DREEM scores are indicative of student-centered, problem-based learning and innovative curricula.[7,8] However, there is still room for improving the learning environment to reach the *"excellent"* status on DREEM measurement. The SoNM is one of the early nursing campuses in Nepal, which was started in 1959 [9] and can thrive on being a model college for emerging nursing colleges in the country. Various studies conducted worldwide support the findings of this study in which nursing students perceived their learning environment as more positive than negative.[10-16] The total mean score in the present study was 142.64, which is higher than the students in a college in India (121.48)[17], Pakistan (132.6) [4], Egypt (112.65) [18], and in another university in Nepal (131.25).[13] On the contrary, a study was done in Iran[19] showed a total DREEM mean score of 146.0 which was higher than the present study.

The five sub-scales in the DREEM inventory measure perception of learning, perception of teachers, academic self-perception, perception of atmosphere, and social self-perception.[2] The highest mean score was found in the subscale of students' perception of learning (35.87), whereas relatively low mean scores were found in social self-perception (18.51 of 28) and perception of the atmosphere (32.89 of 48). This finding is in line with that of a study done in Saudi Arabia.[20] In social self-perception, the majority of participants (n=220,76.1%) are of the "*not too bad*" category, and 34(11%) perceived their learning environment as "*not a nice place*." This finding concurs with the finding of the study done in Pakistan.[21] Unlike other college programs, nursing is a professional education with a strict schedule comprising of classroom and clinical learning that may leave the students with very little or no leisure time to relax and enjoy their social life. Lack of leisure activities may make the students lonely and make their environment unpleasant.[22] The academic environment must provide for and encourage students to take part in extracurricular and recreational activities. This acts as a de-stressor that creates positivity which will enhance the learning environment of students.[23]

Overall, the highest mean score (3.42) was reported for an individual item, "I am encouraged to participate in class". The other item that scored a high mean score was, "The teaching helps develop my competence" (3.33). It is remarkable to note that students also rated high on "I have learned a lot about empathy in my profession" (3.29). Ethical values are not only essential but form a firm foundation for nursing practice.[24] The uniqueness of PAHS education is that it inculcates students with medical humanities and ethical values so that they are prepared

to practice these virtues in their professional life. The other item that scored 3.29 was "The teaching helps to develop my confidence." On the contrary, the item with the lowest mean score was "I feel able to ask the questions I want anyone in the campus" (1.01). The interaction between the teacher and the students promotes and strengthens the positive learning environment. In a study done in South Africa, nursing students verbalized that the teachers should be respectful, friendly, patient, and non-threatening so that the students can approach them with their concerns. [25] The other items with relatively low scores were, "The students irritate the teachers (1.45), "I seldom feel lonely when I am on this campus" (1.99), "I am rarely bored on this course" (2.05), and "The teaching is too teacher-centered (2.28). The nursing faculty needs to bear in mind that the millennial students' approach to learning differs from past generations. Enhancing educational pedagogy that focuses on students' needs and that actively engages them through problem-based learning promotes student-centered learning.[26] Furthermore, the student-centered approach improves critical thinking skills among nursing students, which is an essential component in decision-making during clinical practice.[27,28]

According to the programs, the overall perception of the learning environment revealed that students of BSc Nursing program had the highest overall mean score (145.72±13.62), followed by PCL students (144.47±12.49), MN students (142.66±14.96), and the lowest mean score was obtained by BNS students (138.12±14.96). In addition, BNS students had the lowest mean score in three out of five subscales: perception of teachers, perception of atmosphere, and social self-perception. One possible reason might be that the BNS program has almost two hundred hours of basic science courses that most nursing students find challenging to study. There was a statistically significant mean difference between the four nursing programs in overall student perception of the environment (p=0.01) and all the sub-scales except perception of learning (p=0.24). A

study done in Saudi Arabia also found the difference in perception between two undergraduate bachelor programs; generic and accelerated,[29] similar to our study findings. One of the entry criteria for the BSc (generic) program is the completion of grade 12 with science subjects, whereas the same criteria do not apply for BNS (accelerated) program. The students enrolled for the BNS program without a science background may perceive learning more challenging than those who studied science subjects in grade 12. However, this finding differs from a study done in Texas, USA, that showed no significant difference between two bachelor nursing programs across the subscales except in the perception of the atmosphere (p<0.05).[1]

We also found a statistically significant mean difference between the first and final year students in their perception of the learning environment (total score) and across all the subscales except in social self-perception (p=0.85). The first-year students had a higher mean score for the perception than the final-year students. This trend was observed across all the subscales. Similar findings were observed in studies done in Pakistan,[30] Nepal,[13] Philippines[3], and Malaysia.[23] The positive perception among the first-year students might be due to the feeling of achievement of getting admission into one of the reputed nursing colleges in Nepal. On the other hand, the final-year students have already been exposed to all the areas, including clinical, and may have experienced academic nuances during their academic years.

The findings of this study will provide insight for the college administration to identify and work upon the areas that need betterment. The SoNM has a new curriculum based on the core values of PAHS for all its programs from this current year. Hence, this study may serve as a baseline for future evaluation of the learning environment in our college. A longitudinal study among the same cohort of students may help to identify their perception across academic years.

Conclusion

The majority of the students perceived their learning environment as more positive than negative. The most positive perceived domain was the type of learning, and the most negative perception was found to be for social self-perception. There was a significant difference between students' perceptions across the various academic programs in all the areas. Students of Bachelor in Nursing Science (BNS) showed less positive perceptions than the students from other programs. Similarly, there was a significant difference in the perception of first and final-year students across all areas. Overall, first-year students had a more positive perception of their learning environment than final-year students.

Author Contribution
Concept, design, planning: ALL (PS, KP, AP, BP); Literature review: PS, BP; Data collection/analysis: BP, PS; Draft manuscript: ALL; Revision of draft- ALL; Final manuscript: ALL; Accountability of the work: ALL.

Reference

1. Payne LK, Glaspie T. Association between baccalaureate nursing students' perceptions of educational environment and HESI™ scores and GPA. Nurse Education Today. 2014;34:e64-8. | DOI | PubMed | Google Scholar |
2. Roff S, McAleer S, Ifere OS, Bhattacharya S. A global diagnostic tool for measuring educational environment comparing Nigeria and Nepal. JN Medical Teacher. 2001;23(4):378-82. | DOI | PubMed | Google Scholar |
3. Barcelo JM. Medical laboratory science and nursing students' perception of the academic learning environment at a Philippine university using the Dundee ready education environment measure. 2016;13(33):1-7. | DOI | PubMed | Google Scholar | Full Text |
4. Shaheen N, Hamdani U, Roshan R, Shaheen FA, Azam N, Pervaiz F, Mahmood H. Nursing students' perceptions of their educational environment in an armed force nursing college- a cross sectional study. Pak Armed Forces Med. 2019; 69(Suppl-2):S176-80. | Google Scholar | Full Text |
5. Nozha OMAl, Fadel HT. Student perception of the educational environment in regular and bridging nursing programs in Saudi Arabia using the Dundee ready educational environment measure. Ann Saudi Med. 2017;37(3):225-31. | DOI | Google Scholar | Full Text |
6. Nepal B, Taketomi K, Ito YM, Kohanawa M, Kawabata H, Tanaka M, et al. Nepalese undergraduate nursing students' perceptions of the clinical learning environment, supervision and nurse teachers: A questionnaire survey. Nurse education today. 2016;39:181-8. | DOI | PubMed | Google Scholar |
7. Patil AA, Chaudhavi VL. Students' perception of the educational environment in medical college: a study based on DREEM questionnaire. Korean Journal of Medical Education. 2016;28:281. | DOI | PubMed | Google Scholar | Full Text |
8. Brown T, Williams B, Lyuch M. The Australian DREEM: evaluating students' perceptions of academic learning environments within eight health science courses. International Journal of Medical Education. 2011;2:94-101. | DOI | Google Scholar | Full Text |
9. Patan Academy of Health Sciences, School of Nursing and Midwifery, Lalitpur Nursing Campus. Introduction. 2020. | Weblink |

137

Journal of Patan Academy of Health Sciences. 2021Dec;8(3):130-140.

10. Bakhshialiabad H, Bakhshi G, Hashemi Z, Bakhshi A, Abazari F. Improving students' learning environment by DREEM: an educational experiment in an Iranian medical sciences university (2011-2016). BMC Medical Education. 2019;19(1):397. | DOI | PubMed | Google Scholar | Full Text |

11. Fego MW, Olani A, Tesfaye T. Nursing students' perception and associated factors towards their educational environment in governmental universities of southwest Ethiopia, 2019. Nursing Practice Today. 2020;7(4):302-10. | DOI | Google Scholar | Full Text |

12. Kohli V, Dhaliwal U. Medical students' perception of the educational environment in a medical college in India: a cross-sectional study using the Dundee Ready Education Environment questionnaire. Journal of Education and Evaluation of Health Professionals. 2013;10(5). | DOI | PubMed | Google Scholar | Full Text |

13. Shrestha E, Mehta RS, Mandal G, Chaudhary K, Pradhan N. Perception of the learning environment among the students in a nursing college in Eastern Nepal. BMC Medical Education. 2019;19:382. | DOI | PubMed | Google Scholar | Full Text |

14. Schubiger M, Lechthaler F, Khamidova M, Parfitt BA, Prytherch H, van Twillert E, Wyss K. Informing the medical education reform in Tajikistan: evidence on the learning environment at two nursing colleges. BMC Medical Education. 2019;19:85. | DOI | PubMed | Google Scholar | Full Text |

15. Ousey K, Stephenson J, Brown T, Garside J. Investigating perceptions of the academic educational environment across six undergraduate health care courses in the United Kingdom. Nurse Education in Practice. 2014;14:24-29. | DOI | PubMed | Google Scholar | Full Text |

16. El-Bahnasawy HT, Al-Hadid L, Fayed NM. Influence of the perceived environment on future career planning among nursing students in Egypt. Child Health Nursing Research. 2021;27(1):86-94. | Google Scholar | Full Text |

17. Shenai SNA, George AM, Mariyam AM, Abraham AP, Balakrishnan A, Scaria A. Perception of educational environment among BSc nursing students. International Journal of Nursing Education. 2019;11(1):109-14. | DOI | Google Scholar | Full Text |

18. Abusaad FE, Mohamed HE, EL-Gilany A. Nursing students' perceptions of the educational learning environment in pediatric and maternity courses using DREEM questionnaire. Journal of Education and Practice. 2015;6(29):26-32. | Google Scholar | Full Text |

19. Hassanian ZM, Oshvandi K. Nursing and midwifery students' perceptions of educational environment and grade point average: a comparison between nursing and midwifery students. Electronic Physician. 2018;10(7):7107-14. | DOI | PubMed | Google Scholar | Full Text |

20. Rawas H, Yasmeen N. Perception of nursing students about their educational environment in College of Nursing at King Saud Bin Abdulaziz University for Health Sciences, Saudi Arabia. Medical Teacher. 2019;41(11):1307-14. | DOI | PubMed | Google Scholar |

21. Victor G, Ishtiaq M, Parveen S. Nursing students' perceptions of their educational environment in the bachelor's programs of the Shifa College of Nursing, Pakistan. 2016;13:43. | DOI | PubMed | Google Scholar | Full Text |

22. Shrestha S, Lama R. Stress/stressors as predicted by Nepalese nursing students. International Journal of Nursing Research and Practice. 2014;1(2):5-9. | Google Scholar |

23. Said NM, Rogayah J, Hafiazah J. A study of learning environments in the Kulliyyah (faculty of nursing, International Islamic University Malaysia. The Malaysian Journal of Medical Sciences. 2009;16(4):15-24. | PubMed | Google Scholar | Full Text |

24. Haddad LM, Geiger RA. Nursing Ethical Considerations. |Updated 2020 Sep 1 |. In: StatPearls | Internet |. Treasure Island

138

Journal of Patan Academy of Health Sciences. 2021Dec;8(3):130-140.

(FL): StatPearls Publishing; 2021 Jan. | Weblink |

25. Froneman K, duPlessis E, Koen MP. Effective educator-student relationships in nursing education to strengthen nursing students' resilience. Curationis. 2016;39(1):1595. | DOI | PubMed | Google Scholar | Full Text |

26. Ferszt GG, Dugas J, McGrane C, Calderelli K. Creative strategies for teaching millennial nursing students. Nurse Educator. 2017;42(6):275-6. | DOI | PubMed | Google Scholar |

27. Zhang Y, Zhou L, Liu X, Wu Y, Zhao Z, Yo D et al. The effectiveness of the problem-based learning teaching model for use in introductory Chinese undergraduate medical courses: a systematic review and meta-analysis. PLoS One. 2015;10(3):e0120884. | DOI | PubMed | Google Scholar | Full Text |

28. Sayyah M, Shirbandi K, Saki-Malehi A, Rahim F. Use of a problem-based learning teaching model for undergraduate medical and nursing education: a systematic review and meta-analysis. Advances in Medical Education and Practice. 2017;8:691-700. | DOI | PubMed | Google Scholar | Full Text |

29. Al Nozha OM, Fadel HT. Student perception of the educational environment in regular and bridging nursing programs in Saudi Arabia using the Dundee Ready Educational Environment Measure. Annals of Saudi Medicine. 2017;37(3):225-31. | DOI | PubMed | Google Scholar | Full Text |

30. Farooq S, Rehman R, Dias JM, Hussain. Perceptions of nursing students of educational environment at a private undergraduate school of nursing in Karachi. The Journal of the Pakistan Medical Association. 2018;68(2):216-23. | Google Scholar | Full Text |

Supplement

Part 1: Proforma
Please circle the appropriate answer for the questions below.
1. In which nursing program are you enrolled?
   a. PCL Nursing
   b. B.Sc. Nursing
   c. BNS
   d. MN
2. Currently, which academic year are you in?
   a. First
   b. Final

Part 2: Dundee Ready Education Environment Measure (DREEM) Inventory
Please indicate whether you Strongly Agree, Agree, are Unsure, Disagree or Strongly Disagree with the statements below. It is about how you perceive the course.

Item	Strongly Agree	Agree	Uncertain	Disagree	Strongly disagree
1. I am encouraged to participate in class.					
2. I can understand what teachers teach in class.					
3. There is a good support-system for students who get stressed on this campus.					
4. I am too tired to enjoy the course.					
5. Learning strategies that worked for me before continuing to work for me now.					
6. The teachers are patient with patients during clinical posting.					
7. The teaching is often stimulating.					
8. The teachers do not respect the ideas of students.					

9. The teachers do not listen to my opinions/viewpoints.					
10. I am confident about my passing this year.					
11. The atmosphere is relaxed during ward teaching.					
12. This course is well timetabled.					
13. The teaching is student-centered.					
14. I am rarely bored with this course.					
15. I have good friends on this campus.					
16. The teaching helps to develop my competence.					
17. Cheating in the exams is a problem on this campus.					
18. The teachers have good communication skills.					
19. My social life is good on this campus.					
20. The teaching is well focused on course objectives.					
21. The teaching helps to develop my confidence.					
22. I feel I am being well prepared for my profession.					
23. The atmosphere is relaxed during lectures					
24. The teaching time is put to good use					
25. The teaching over emphasizes factual learning					
26. The last course prepared me well for this course.					
27. I can memorize all I need.					
28. I seldom feel lonely when I am on this campus.					
29. The teachers are good at providing feedback to students.					
30. There are opportunities for me to develop interpersonal skills.					
31. I have learned a lot about empathy in my profession.					
32. The teachers provide constructive feedback during clinical postings.					
33. I feel comfortable in class socially.					
34. The atmosphere is relaxed during conducting seminars and other presentations.					
35. I find my experience on this campus disappointing.					
36. I can concentrate well during classes and in my clinical postings.					
37. The teachers give clear examples.					
38. I am clear about the learning objectives of the course.					
39. The teachers get angry in teaching sessions.					
40. The teachers are well prepared for their teaching sessions.					
41. My problem-solving skills are being well developed here.					
42. The enjoyment outweighs the stress of the course.					
43. The atmosphere on this campus motivates me as a learner.					
44. The teaching encourages me to be an active learner.					
45. Much of what I have to learn seems relevant to a career in healthcare					
46. The learning environment of this campus is pleasant.					
47. Long-term learning is emphasized over short-term learning on this campus.					
48. The teaching is too teacher centered					
49. The students irritate the teachers					
50. I feel I am able to ask the questions I want, anyone in the campus.					

140

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