

EDUCATIONAL ENVIRONMENT AND CLIMATE FOR STUDENT EDUCATION IN NON-MEDICAL STUDY PROGRAMS - PILOT PROJECT

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Abstract: *The educational environment of the institution is an important determinant in teaching and learning. The acquired knowledge and skills of students of non-medical study programs acquired by institutional education are a prerequisite for a smooth transition to clinical workplaces and effective collaboration with health professionals. The objective of the paper is to map how the institutionalized educational environment is evaluated by students of non-medical study programs. The research sample consisted of 110 respondents from University of Presov in Presov, Faculty of Health Care, Department of Nursing and Department of Midwifery. The average age of respondents was 21.57 years (SD 2.20). Data collection was done through the Dundee Ready Educational Environment Measure (DREEM) standardized questionnaire. Respondents rated their education at 100 -150 points, which is more positive than negative evaluation.*

Keywords: *DREEM. Non-medical study programs. Educational environment. Educational climate. Student education.*

Introduction

Education is a process of pedagogical and educational activity that takes place in a diverse environment. In foreign pedagogy education means not only education itself but also teaching activity. Thus, education is the result of this action. We distinguish between formal education that takes place in schools, school facilities, universities, adult education and training carried out in non-school educational establishments and non-formal education, which is carried out in cultural, business, training and further education institutions (lifelong learning and distance education) (Obdržalék, Horváthová, 2004).

Effective teaching and learning can only take place when an optimal educational environment, also called educational reality, is in place. This includes the educational environment itself, educational needs, processes and constructs (Magurová, Majerníková, 2016). Social and emotional elements of education are a priority in an optimal educational environment and are seen as the foundations of academic achievement and personal well-being. The optimal educational environment starts with a positive, productive school environment. This school environment also provides an intellectual and emotionally safe

classroom environment that stimulates community formation, which is characterized by equal relationships (Prucha, 1997). They create a sense of belonging and support academic, social and emotional skills. The optimal educational environment reflects the belief that all students can achieve high standards. Within the optimal educational environment, the diverse needs of each student are addressed through constant attention to equality and continuous academic, social and emotional growth. The educational environment has a direct and indirect impact on student education, including their involvement in what they learn and their motivation to learn (Zelina, 2009).

The educational environment should be stimulating for all students, it should support the development of their individualities in the widest possible scope and provide them with the possibilities to use all of their potential capabilities (Hašková, 2000, p. 94).

Objective

The objective of the paper is to map how the institutionalized educational environment is evaluated by students of non-medical study programs, namely students of Nursing and Midwifery at University of Presov in Presov, Faculty of Health Care.

Data

A pilot study sample was selected by purposive sampling. The sample of respondents consisted of 110 3rd year students, of whom 85 were from Nursing (NUR) and 25 from Midwifery (MID). The average age of respondents was 21.57 years (SD 2.20). Data collection was carried out in January 2018 at the Faculty of Health Care, University of Presov in Presov, with the consent of its dean.

Methodology

Data collection was done through the Dundee Ready Educational Environment Measure (DREEM) standardized questionnaire, that assesses the educational environment and climate in health professions schools (Roof, 2005). Its translation from the original was done by a double translation method (from the English original into the Slovak language, and from the Slovak into the English and then compared with the original) by two independent translators of the licensed translation agency WANT in Košice. The DREEM questionnaire consists of 50 items, which are evaluated on a 5-

point Likert scale with a rating of 0 - 4 (0 = strongly disagree, 1 = disagree, 2 = unsure, 3 = agree and 4 = strongly agree). There are 9 negative items (number 4, 8, 9, 17, 25, 35, 39, 48 and 50) that must be scored in a reverse manner (0 = strongly agree, 1 = agree, 2 = unsure, 3 = disagree and 4 = strongly disagree). A low score for these negative items means consent.

The questionnaire generates a total score of 200, representing the maximum rating of the excellent educational environment (0-50 Very poor, 51-100 Plenty of problems, 101-150 More positive than negative, 151-200 Excellent).

In addition to the overall evaluation of the educational environment by the DREEM questionnaire, we also evaluated 5 domains of the educational environment (Edgren et al., 2010):

- "Students' Perception of Learning" (12 questions and a maximum score of 48),
- "Students' Perception of Teachers" (11 questions and a maximum score of 44),
- "Students' Academic Self-Perception" (8 questions and a maximum score of 32),
- "Students' Perception of Atmosphere" (12 questions and a maximum score of 48),
- "Students' Social Self-Perception" (7 questions and a maximum score of 28).

Items in each domain with an average score of 3.5 or more are really positive. Each item with an average of 2 or less should be examined in more detail as it indicates problem areas. Items with an average between 2 and 3 are aspects of an educational environment and climate in the institution that could be increased (Roff, 2006).

We used descriptive statistics to provide information on measures of central tendency and variability (mean/average - M, standard deviation - SD).

Results and Discussion

By analyzing the results within the "**Students' Perception of Learning**" domain (Table 1) we found that all items in this domain reached an average of responses between 2 - 3. Significant shortcomings are not reported by students in this domain (none of the items reached an average score below 2), however, this assessment points out that all items could be increased. Respondents from the Nursing study program rated item 47 the best (Long-term learning is emphasized over short-term learning). The mean value is 3.00 (SD = 0.67), which we consider to be positive, given that the nursing education is dominated

by the long-term education, which is necessary for the profession and further lifelong education. Overall, respondents from the Midwifery study program responded more positively ($M = 31.02$, $SD = 10.01$) than respondents from Nursing study program ($M = 28.38$, $SD = 10.32$). However, both groups of respondents perceive a more positive approach in learning. For example, in a study conducted in India, respondents rated this domain worse than our respondents ($M = 16.68$, $SD 4.87$), specifically that „teaching is viewed negatively“ (Kohli, Dhaliwal, 2013).

Table 1 „Students’ Perception of Learning“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
1.	I am encouraged to participate in teaching sessions	2.29	0.99	2.80	0.97
7.	The teaching is often stimulating	2.18	0.97	2.43	0.69
13.	The teaching is student centered	2.46	0.91	2.52	1.04
16.	The teaching helps to develop my competence	2.32	0.58	2.73	0.68
20.	The teaching is well focused	2.24	1.19	2.62	0.30
21.	The teaching helps to develop my confidence	2.55	0.84	2.91	0.75
24.	The teaching time is put to good use	2.27	0.93	2.33	0.92
25.	The teaching over-emphasizes factual learning	2.25	0.74	2.62	0.72
38.	I’m clear about the learning objectives of the course	2.39	0.85	2.77	0.96
44.	The teaching encourages me to be an active learner	2.28	0.83	2.55	0.88
47.	Long-term learning is emphasized over short-term learning	3.00	0.67	2.44	0.89

48.	The teaching is too teacher-centred*	2.15	0.82	2.30	1.21
Total		28.38	10.32	31.02	10.01

Note:

Source: Own processing

NUR – Department of Nursing **MID** – Department of Midwifery

Score: 0 - 12 Very poor, 13 – 24 Teaching is viewed negatively, 25 – 36 A more positive approach, 37 – 48 Teaching highly thought of

Analysis of the domain assessment of "Students' Perception of Teachers" suggests that respondents overall assessed this domain within the range of 23 - 33 (i.e., moving in the right direction) (Table 2). Respondents from the Midwifery study program evaluated this domain by a better score (reaching a score of $M = 29.76$, $SD = 9.76$), than from Nursing (where the score reached $M = 27.77$, $SD = 9.91$). All items in both files reached an average score of 2 - 3.

Table 2 „Students' Perception of Teachers“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
2.	The teachers are knowledgeable	2.65	0.81	3.06	0.60
6.	The teachers adopt a patient-centred approach to consulting	2.49	1.16	2.81	0.85
8.	The teachers ridicule the students	2.94	0.95	2.93	1.13
9.	The teachers are authoritarian	2.73	0.76	2.80	0.64
18.	The teachers have good communication skills with patients	2,49	1.01	2.66	0.76
29.	The teachers are good at providing feedback to students	2.07	0.91	2.11	1.03
32.	The teachers provide constructive criticism here	2.23	0.68	2.51	0.84
37.	The teachers give clear examples	2.61	0.77	2.59	0.87

39.	The teachers get angry in teaching	2.44	1.02	2.77	0.86
40.	The teachers are well-prepared for their teaching sessions	2.44	0.85	2.69	0.75
50.	The students irritate the teachers	2.68	0.99	2.83	1.43
Total		27.77	9.91	29.76	9.76

Note:

Source: Own processing

NUR – Department of Nursing **MID** – Department of Midwifery

Score: 0 - 11 Abysmal, 12 – 22 In need of some retraining, 23 – 33 Moving in the right direction, 34 – 44 Model teachers

The results of the "**Students' Academic Self-Perception**" domain (Table 3) showed „a feeling more on the positive side“ among respondents in both disciplines in this domain. Students have a very similar best overall rating of item 45 (Much of what I have to learn seems relevant to a career in healthcare). The average response score in this item was more than 3. In the "**Students' Perception of Atmosphere**" domain, by analyzing respondents' responses, we concluded that they considered this area as „a more positive atmosphere“ (Table 4). The highest average item score was for item 31 (I have learnt a lot about empathy in my profession), with a score of 3.17 (SD = 0.67) among Nursing students. Empathy is very important in the practice of healthcare. In addition to professional qualifications, a nurse as well as another healthcare worker must have empathy (Ondriová, 2014).

Table 3 „Students' Academic Self-Perception“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
5.	Learning strategies that worked for me before continue to work for me now	2.51	0.91	2.96	0.65
10.	I am confident about my passing this year	2.87	0.84	2.69	1.03
22.	I feel I am being well prepared for my profession	2.55	0.79	2.73	0.75

26.	Last year's work has been a good preparation for this year's work	2.25	0.92	2.58	0.74
27.	I am able to memorize all I need	2.42	0.97	2.42	0.88
31.	I have learnt a lot about empathy in my profession	3.17	0.67	2.81	0.79
41.	My problem-solving skills are being well developed here	2.65	0.85	3.00	0.86
45.	Much of what I have to learn seems relevant to a career in healthcare	3.01	0.87	3.04	0.81
Total		21.43	6.82	22.23	6.51

Note:

Source: Own processing

NUR – Department of Nursing **MID** – Department of Midwifery

Score: 0 – 8 Feeling of total failure, 9 – 16 Many negative aspects, 17 – 24 Feeling more on the positive side, 25– 32 Confident

Table 4 „Students' Perception of Atmosphere“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
11.	The atmosphere is relaxed during ward teaching	2.57	0.99	2.54	0.89
12.	This school is well time-tabled	2.61	0.96	2.35	1.11
17.	Cheating is a problem in this school	2.25	1.12	2.96	1.09
23.	The atmosphere is relaxed during lectures	2.44	0.96	2.54	0.89
30.	There are opportunities for me to develop my interpersonal skills	2.26	0.85	2,38	0.68
33.	I feel comfortable in class socially	2.52	0,82	2.58	0,69
34.	The atmosphere is relaxed during class/seminars/tutorials	2.64	0.81	2.69	0,91

35.	I find the experience disappointing	1.54	0.89	1.14	1.81
36.	I am able to concentrate well	2.48	0.84	2.65	0.78
42.	The enjoyment outweighs the stress of the course	1.68	0.71	3.00	0.68
43.	The atmosphere motivates me as a learner	2.04	0.85	1.81	1.11
49.	I feel able to ask the questions I want	1.08	0.90	2.54	0.97
Total		26.11	10.07	29.18	11.61

Note: Source: Own processing
NUR – Department of Nursing **MID** – Department of Midwifery
Score: 0 – 12 A terrible environment, 13 – 24 There are many issues that need changing, 25 – 36 A more positive atmosphere, 37 – 48 A good feeling overall

The last evaluated domain was the domain of "**Students' Social Self-Perception**" (Table 5). Students in this domain also listed items with an average item score below 2. Specifically, item 3 (There is a good support system for students who get stressed) for both groups of respondents and item 14 (I am rarely bored in this course) for Nursing study program. The overall assessment of this domain for respondents in both groups is rated as „not too bad“.

Education is a purposeful activation of conditions enabling the optimal development of each individual in accordance with his individual dispositions and stimulates his own efforts to become an authentic, internally integrated and socialized personality - fully developed personality (Blaško, 2008). It is the activation of the educational environment that could improve the assessment of the most problematic areas that students report.

Table 5 „Students' Social Self-Perception“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
3.	There is a good support system for students who get stressed	1.32	0.88	1.92	1,4
4.	I am too tired to enjoy the course	2.23	1.11	2.73	1.19

14.	I am rarely bored in this course	1.89	1.07	2.35	0.87
15.	I have good friends in this course	3.46	0.63	2.35	0.87
19.	My social life is good	2.95	1.13	2.23	1.19
28.	I seldom feel lonely	2.37	1.18	2.46	1.25
46.	My accommodation is pleasant	2.95	1.25	2.85	1.29
Total		17.17	7.25	16.89	7.90

Note:

Source: Own processing

NUR – Department of Nursing **MID** – Department of Midwifery

Score: 0 – 7 Miserable, 8 – 14 Not a nice place, 15 – 21 Not too bad, 22 - 28 Very good socially

Table 6 Evaluation of DREEM questionnaire domains and overall assessment of the educational environment

Domain	Average Domain Score (NUR)	SD (NUR)	Average Domain Score (MID)	SD (MID)
Students' Perception of Learning	28.38	10.32	31.02	10.01
Students' Perception of Teachers	27.77	9.91	29.76	9.76
Students' Academic Self-Perception	21.43	6.82	22.23	6.51
Students' Perception of Atmosphere	26.11	10.07	29.18	11.61
Students' Social Self-Perception	17.17	7.25	16.89	7.90
Total	120.86	44.37	129.08	45.79

Note: Source: Own processing
NUR – Department of Nursing **MID** – Department of Midwifery
Score: 0-50 Very poor, 51-100 Plenty of problems, 101-150 More positive than negative, 151-200 Excellent

Overall, the respondents in our pilot project evaluated their education at 101 -150 points within both groups (Table 6), which is rated as „more positive than negative“ evaluation. In available studies on the evaluation of the educational environment at healthcare institutions that have been implemented with the same measurement tool, they report a similar assessment as we found in our study - more positive than negative. For example, studies in Malaysia provided an overall assessment of 133/200 and 134/200. Studies in India provided a mean overall assessment of 101/200 (Kohli, Dhaliwal, 2013), studies in the United Kingdom reported 139/200 score, the Swedish and the Irish scored 145 or more. A score of 89/200 was reported in Saudi Arabia at the College of Medicine at King Saud University, which is the lowest published score using the DREEM instrument (Hammond et al., 2012).

Conclusion

Our study shows that students evaluate their learning environment as „more positive than negative“. Nevertheless, there are still many areas that need to be improved.

DREEM is widely used as a tool that measures the educational environment as reported by many available published studies around the world. Based on the conclusions of other similar studies, we also wanted to engage in researching this issue and by presenting our results, provide insight into the assessment of the educational environment in our faculty. While these are just the results of a pilot study, it was our intention to point out the importance of this measuring tool and offer a more general picture of its international applicability.

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