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Student-Based Analysis of Perception Regarding the Educational Environment Using the Dundee Ready Education Environment Measure Questionnaire at Chattagram Maa-O-Shishu Hospital Medical College, Bangladesh

Asma Mostafa[1], Rozina Hoque[2], Mainul Haque[3]

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ORCID IDs of the authors: A.M. 0000-0003-4924-9977, R.H. 0000-0002-8156-4961, M.H. 0000-0002-6124-7993.

[1]Department of Anatomy, Chattagram Maa-O-Shishu Hospital Medical College, Bangladesh

[2]Department of Pharmacology and Therapeutics, Chattagram Maa-O-Shishu Hospital Medical College, Bangladesh

[3]Unit of Pharmacology, Faculty of Medicine and Defence Health, Universiti Pertahanan Nasional Malaysia (National Defence University of Malaysia), Kem Perdana Sungai Besi, Kuala Lumpur, Malaysia

Corresponding author:
Mainul Haque,
Unit of Pharmacology, Faculty of Medicine and Defence Health, Universiti Pertahanan Nasional Malaysia (National Defence University of Malaysia), Kem Perdana Sungai Besi, Kuala Lumpur, Malaysia

E-mail: runurono@gmail.com

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ABSTRACT

Aim: The educational environment is the most significant manifestation of the curriculum. The Dundee Ready Education Environment Measure questionnaire is the precise quantitative assessment tool for the EE for medical- and health-related professional schools.

Method: This was a cross-sectional study conducted in Chattagram Maa-O-Shishu Hospital Medical College, Chittagong, Bangladesh during the study period of 2017–2018. The DREEM questionnaire was distributed to the paraclinical and clinical students in their regular classes. Data were analyzed using SPSS version 19.

Results: A total of 170 students responded to the questionnaire, of which 27.6% were male, and 72.4% were female. The mean total Dundee Ready Education Environment Measure score of the present study was 130.46. Paraclinical students scored statistically significantly higher than clinical students ($p=0.040$). Students' social self-perceptions were significantly higher for male than for female students ($p<0.05$). Most of the students opined that a positive learning experience (80.6%), appropriate teaching method (81.2%), and academic self-perceptions were positive (77.1%), and positive learning atmosphere (65.9%) as well as social surroundings were in acceptable range (70.6%) in Chattagram Maa-O-Shishu Hospital Medical College.

Conclusion: The findings and evidences of the present study will hopefully provide the basis to take effective measures to improve teaching and learning environment of this medical school.

Keywords: DREEM questionnaire, educational environment, medical students, perceptions of learning

INTRODUCTION

Education means learning and teaching, and "environment means all things that surround us. Thus, in a broad sense, the educational environment (EE) can be defined as all things that are experienced in an educational institution (Salam et al., 2014). The educational environment is the most significant manifestation of the concept of curriculum (Genn, 2001). The success of an effective curriculum is determined by this most important factor: "EE." This is subsequently considered as an important regulator for the student's academic success (Tripathy, & Dudani, 2013). Everything that is occurring in the classes, departments, and medical college constitutes the curriculum. For an effective curriculum to be maintained, two important factors should be kept in mind: (1) the meaning of EE should be understood and (ii) the diverse students' needs should be met (Bassaw et al., 2003).

In an educational institution, usually, students come from different ethnic heritage, and at the same time, they differ in perspective experiences, expectations, and approaches to learning (Hixson, 1991). These diverse norms and values should be respected by the educational system. Along with this respect, learners must be prepared to show a positive response to those values (Baginda, 2005). Awareness of diversity in the form of various lifestyles and cultures by an educational institution indicates that a positive EE or system is existing there (Baginda, 2005; Elizabeth, Rider, & Nawotniak, 2007).

The learning environment influences the learning of medical students and, in the future, their practice as a physician (Al-Kabbaa, Ahmad, Saeed, Abdalla, & Mustafa, 2012). Comprehensive measurement of outcome of what is going on from the students' perspective could be done by assessing the medical EE (Genn, 2001). Social behavior, academic development, and sense of comfort of a medical student are significantly affected by their perception of the environment within which they study (Genn, 2001; Genn, & Harden, 1986; Pimparyon, Roff, McAleer, Poonchiai, & Pemba, 2000; Roff, & McAleer, 2001; Till, 2005). Fostering of deep self-directed learning in students could be done if a motivating learning environment could be assured. This could subsequently lead to a good medical practitioner during their professional life (Veerapen, & McAleer, 2010).

The definition of an ideal academic environment is one that helps the students to be prepared for their future professional life and, at the same time, contributes to their own development along with the social development (Divaris et al., 2008). It is globally agreed by the medical and allied health educators that effective learning can occur only if the optimal educational climate could be maintained. High quality medical education could be delivered if the emphasis is given on appraisal of the educational climate. At the same time, an institution can improve their curriculum by receiving useful feedback from such appraisal (Yusoff, Jaafar, Arzuman, Arifin & Pa, 2013).

The Dundee Ready Education Environment Measure (DREEM) questionnaire is a well-planned and designed tool for the precise quantitative assessment of the EE for medical- and health-related professional schools. To collect information about the EE, it has been used worldwide in many institutions (Abraham, Ramnarayan, Vinod, & Torke, 2008; Avalos, Freeman, & Dunne, 2007; Jiffry, McAleer Fernando, & Marasinghe, 2005). Students' learning experience can be more relevant and more meaningful if their perception of the EE is positive (Veasuvalingam, & Arzuman, 2014).

It has been observed that if the EE could be encountered by medical students, then this

could have been impacted on several outcomes, such as enjoyment during the study, feeling good, and academic accomplishment (Lizzio, Wilson, & Simons, 2002; Mayya, & Roff, 2004; Plucker, 1998). The DREEM study also allows the provision of the enhancement of the quality of the EE and medical education process (Genn, & Harden, 1986).

Important notification in this matter has not yet been given in Bangladesh. Such an important issue should be considered as a vital measure for student concern. As part of the teaching methodology, our concern should be very clear about the medical EE. On this basis, with the use of the DREEM questionnaire, the aim of the present study was to achieve an important outcome regarding the EE from the students' perspective from the medical college in which they belong and to search the strong points and flaws of the current medical curriculum and thus help to supply useful information to the curriculum review committee.

Research Questions

Keeping in mind the context and rationale of the study as mentioned in the previous sections, the following research questions were formulated for the study:

1) What is the students' perception of the EE of Chattagram Maa-O-Shishu Hospital Medical College (CMOSHMC) using the DREEM questionnaire as a tool?

2) Are there any stronger and weaker areas of each of five domains?

3) Is there any influence of academic year and gender on students' perception?

METHOD

Study Design

This was a cross-sectional study.

Sample

The present study was conducted in CMOSHMC, Chittagong, Bangladesh during the study period of 2017–2018. All third through fifth year students could participate in the study. The undergraduate medical curriculum of Bangladesh is a five-year training program that is divided into three periods: 1.5 years of preclinical study, 2 years of paraclinical study, and 1.5 years of clinical study.

Data Collection

The DREEM was used to study the students' perception of the EE of CMOSHMC. This is an internationally valid and reliable tool and well accepted to measure the medical EE (Roff et al., 1997; Swift, Miles, & Lienster, 2013; Tontus, 2010). It was originally designed in English and then translated into Swedish, Greek, and Spanish. Institution-based feedback on the strong points and flaws of the educational climate can be provided by the DREEM (Dimoliatis, Vasilaki, Anastassopoulos, Ioannidis, & Roff, 2010; Jackobsson, Danielsen, & Edgren, 2011; Requelme et al., 2009; Roff et al., 1997). It may highlight areas of student-based concern that could be unintentionally neglected by educators (Yusoff, 2012a; Yusoff, 2012b; Yusoff, 2012c). For these reasons, the DREEM questionnaire is used worldwide, and many highly reputed journals have published many studies' findings (Al-Hazimi, Al-Hyani, & Roff, 2004; Finn, Avalos, & Dunne, 2014; Jeyashree, & Patro, 2013; Kiran, & Gowdappa, 2013; Kossioni, Varela, Ekonomu, Lyrakos, & Dimoliatis, 2012; Roff et al., 1997; Thomas, Abraham, Alexander, & Ramnarayan, 2009; Tontus, 2010; Whittle, Whelan, & Murdoch-Eaton, 2007; Varma, Tiyagi, & Gupta, 2005). Malaysian medical schools also have done several studies, notably Universiti Sultan Zainal Abidin (Al-Naggar et al., 2014; Arzuman, Yusoff, & Chit, 2010; Rahman et al., 2015; Said, Rogayah, & Hafizah, 2009; Salam et al., 2014; Yusoff, 2012a, 2012b).

The DREEM inventory consists of 50 items that measure the EE in five domains: "Students' perceptions of learning (SPL)-12 items," "Students' perceptions of teachers (SPT)-11 items," "Students' academic self-perceptions (SASP)-8 items," "Students' perceptions of atmosphere (SPA)-12 items," and "Students' social self-perceptions (SSSP)-7 items." The students answered all the statements via a five-point Likert scale ranging from "strongly agree" to "strongly disagree." The scoring of items was as follows: "4=strongly agree," "3=agree," "2=uncertain," "1=disagree," and "0=strongly disagree." Items 4, 8, 9, 17, 25, 35, 39, 48, and 50 were reversely scored. The total score for all subscales is 200 (Table 1). The interpretation of the DREEM score is "0–50 very poor," "51–100 many problems," "101–150 more positive than negative," and "151–200 excellent" (Al-Kabbaa et al., 2012; Al-Naggar et al., 2014; Rahman et al., 2015; Roff et al., 1997; Salam et al., 2014; Swift, Miles, & Lienster, 2013; Tripathy & Dudani, 2013; Yusoff et al., 2013).

Table 1. Interpretation of the DREEM score based on domain

Domain	Score	Interpretation
SPL	0–12	Very poor
	13–24	Teaching is viewed negatively
	25–36	A more positive approach
	37–48	Teaching highly thought of
SPT	0–11	Abysmal
	12–22	In need of some retraining
	23–33	Moving in the right direction
	34–44	Model teachers
SASP	0–8	Feeling of total failure
	9–16	Many negative aspects
	17–24	Feeling more on the positive side
	25–32	Confident
SPA	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
SSSP	0–7	Miserable
	8–14	Not a nice place
	15–21	Not too bad
	22–28	Very good socially

SPL: students' perceptions of learning; SPT: students' perceptions of teaching; SASP: students' academic self-perceptions; SPA: students' perceptions of atmosphere; SSSP: students' social self-perceptions; DREEM: Dundee Ready Education Environment Measure

Before going into the survey, the participants were informed about the objectives and process of the study that the data gathered would be anonymized and used for publication, and that study participation was totally voluntary. Written consent was then obtained before the questionnaires were distributed. Respondents were asked to provide information on their socio-demographic characteristics. The "DREEM questionnaire" was distributed to the paraclinical (3rd and 4th year) and clinical (5th year) students in their regular classes, and 1 day was given to complete the study.

Ethical Considerations

The study was approved by the Institutional Review Board of CMOSHMC (8th Meeting of IRB, April 6, 2016).

Data Analysis

Data were analyzed using Statistical Package for the Social Sciences version 19 (SPSS Inc., Chicago, IL, USA). The independent *t*-test was used to determine statistically significant differences between the mean scores of sexes and academic years. A p value <0.05 was considered statistically significant.

RESULTS

A total of 170 students responded to the questionnaire. Table 2 shows that the highest response was from fourth year students

Table 2. Educational profiles of the participants (n=170)

Variable	n	%
Academic year		
Paraclinical	127	74.71
Third	51	30
Fourth	76	44.71
Clinical		
Fifth	43	25.29

(44.71%), and that the lowest response was from fifth year students (25.29%). The study included 47 (27.6%) male respondents and 123 (72.4%) female respondents.

The analysis of the SPL subscale showed that the global scores for the paraclinical and clinical years were 29.10 and 29.26, respectively, out of 48 (Table 3). Across the years of the study, all item scored between 2 and 3 indicating that their perception about learning is satisfactory.

Table 3. The domain and item mean score of the DREEM of CMOSHMC

Domain	Item	Mean (SD)			p
		Paraclinical	Clinical	Overall	
Students' perceptions of learning (SPL)		29.10 (4.41)	29.26 (4.82)	29.14 (4.51)	0.85
1	I am encouraged to participate	2.11 (0.74)	2.16 (0.97)	2.13 (0.80)	
7	The teaching is often stimulating	2.52 (0.96)	2.67 (0.99)	2.56 (0.97)	
13	The teaching is student-centered	2.76 (0.89)	2.65 (0.90)	2.74 (0.89)	
16	The teaching is helpful to develop my skills/competency	2.18 (0.89)	2.00 (0.53)	2.14 (0.81)	
20	The teaching is well focused	2.42 (0.91)	2.49 (0.86)	2.44 (0.90)	
22	The teaching is sufficient to develop my confidence	2.40 1.03	2.12 (0.88)	2.33 (0.99)	
24	The teaching time is put to good use	2.53 (0.84)	2.70 (0.83)	2.57 (0.84)	
25	The teaching over-emphasizes factual learning*	2.41 (0.97)	2.49 (0.80)	2.43 (0.93)	
38	I am clear about the learning objectives of the course	2.32 (0.74)	2.37 (0.90)	2.34 (0.78)	
44	The teaching encourages me to be an active learner	2.45 (0.92)	2.60 (0.95)	2.49 (0.93)	
47	Long-term learning is emphasized over short-term learning	2.28 (0.94)	2.40 (0.90)	2.31 (0.93)	
48	The teaching is too teacher-centered*	2.71 (1.00)	2.60 (1.03)	2.68 (1.01)	
Students' perceptions of teaching (SPT)		27.95 (4.28)	26.72 (3.75)	27.64 (4.17)	0.09
2	The teachers are knowledgeable	2.32 (1.05)	1.88 (0.85)	2.21 (1.02)	
6	The teachers place emphasis on being patient-centered during their interaction with patients	3.06 (0.97)	3.47 (0.85)	3.16 (0.96)	
8	The teachers ridicule the students*	2.38 (1.11)	1.95 (1.17)	2.27 (1.14)	
9	The teachers are authoritarian*	2.40 (1.17)	1.63 (0.95)	2.21 (1.17)	
18	The teachers have good communication skills with the patients	2.26 (0.84)	2.26 (0.76)	2.26 (0.82)	
29	The teachers are good at providing feedback to students	2.76 (0.95)	2.86 (0.94)	2.79 (0.94)	
32	The teachers provide constructive criticism here	2.45 (0.90)	2.51 (1.03)	2.45 (0.94)	
37	The teachers give clear examples	2.59 (0.91)	2.51 (0.88)	2.57 (0.90)	
39	The teachers get angry in class*	2.40 (1.03)	2.11 (0.88)	2.33 (1.00)	
40	The teachers are well prepared for their classes	2.20 (0.72)	2.33 (0.81)	2.23 (0.75)	

50	The students irritate the teachers*	3.15 (1.07)	3.21 (0.94)	3.16 (1.04)	
Students' academic self-perceptions (SASP)		21.46 (3.36)	19.95 (3.86)	21.08 (3.54)	0.02
5	Learning strategies which work for me before, continue to work for me now	2.72 (0.86)	2.65 (1.00)	2.70 (0.89)	
10	I am confident about passing this year	2.75 (0.82)	2.60 (0.88)	2.71 (0.83)	
21	I feel I am well prepared for my profession	2.69 (0.85)	2.44 (0.91)	2.63 (0.87)	
26	Last year's work has been a good preparation for this year's work	2.76 (0.89)	2.23 (0.78)	2.63 (0.89)	
27	I can memorize all I need	3.50 (0.93)	3.40 (0.98)	3.47 (0.94)	
31	I have learned a lot about empathy in my profession	2.09 (0.84)	1.95 (0.69)	2.05 (0.80)	
41	My problem-solving skills are well developed here	2.68 (0.83)	2.47 (0.83)	2.62 (0.83)	
45	Much of what I must learn seems relevant to my career in health care	2.28 (0.80)	2.21 (0.64)	2.26 (0.76)	
Students' perceptions of atmosphere (SPA)		34.66 (5.44)	32.40 (4.68)	34.09 (5.34)	0.02
11	The atmosphere was relaxed during ward teaching	2.94 (1.06)	3.02 (1.01)	2.96 (1.04)	
12	The school is well timetabled	3.19 (1.17)	2.30 (0.86)	2.96 (1.17)	
17	Cheating is a problem in this school*	2.81 (1.15)	2.93 (1.18)	2.84 (1.15)	
23	The atmosphere is relaxed during lectures	2.71 (0.99)	2.63 (1.00)	2.69 (0.99)	
30	There are opportunities for me to develop interpersonal skills	2.87 (1.04)	2.44 (0.83)	2.76 (1.00)	
33	I feel comfortable in class socially	2.51 (0.87)	2.35 (0.97)	2.47 (0.89)	
34	The atmosphere is relaxed during seminars/tutorials	2.88 (1.06)	2.16 (0.75)	2.70 (1.04)	
35	I found the experience disappointing*	2.85 (1.03)	3.02 (0.99)	2.89 (1.02)	
36	I am able to concentrate well	2.85 (0.94)	2.74 (0.85)	2.82 (0.92)	
42	The enjoyment outweighs the stress of studying medicine	3.50 (1.02)	3.40 (1.05)	3.48 (1.03)	
43	The atmosphere motivates me as a learner	2.72 (0.99)	2.77 (0.97)	2.73 (0.98)	
49	I feel able to ask the questions I want	2.82 (1.03)	2.63 (1.00)	2.77 (1.03)	
Students' social self-perceptions (SSSP)		18.61 (3.20)	18.19 (3.05)	18.51 (3.16)	0.45
3	There is a good support system for students who get stressed	3.59 (1.08)	3.72 (0.98)	3.55 (1.05)	
4	I am too tired to enjoy this course	2.39 (1.02)	2.51 (1.22)	2.42 (1.07)	
14	I am rarely bored on this course*	3.05 (1.28)	2.74 (1.18)	2.97 (1.26)	
15	I have good friends in this school	2.07 (0.92)	1.77 (0.68)	1.99 (0.88)	
19	My social life is good	2.34 (1.09)	2.19 (0.96)	2.30 (1.07)	
28	I seldom feel lonely	2.82 (1.10)	2.77 (1.17)	2.81 (1.12)	
46	My accommodation is pleasant	2.46 (0.96)	2.49 (0.94)	2.46 (0.95)	
Total DREEM score		131.80 (14.17)	126.51 (14.90)	130.46 (14.50)	0.04

*Represents items with negative statements. DREEM: Dundee Ready Education Environment Measure; CMOSHMC: Chattagram Maa-O-Shishu Hospital Medical College

The analysis of the SPT subscale showed that the global scores for the paraclinical and clinical years were 27.95 and 26.72, respectively, out of 44 (Table 3). Item 6 "The teach-

Table 4. Association between sex with the mean score of the DREEM of CMOSHMC

Domain	Sex	Mean (SD)	p
SPL	Male	28.96 (5.42)	0.74
	Female	29.21 (4.13)	
SPT	Male	27.77 (4.39)	0.81
	Female	27.60 (4.10)	
SASP	Male	21.72 (3.34)	0.15
	Female	20.83 (3.60)	
SPA	Male	34.00 (5.86)	0.90
	Female	34.12 (5.14)	
SSSP	Male	19.21 (2.85)	0.04
	Female	18.20 (3.23)	
Total	Male	131.74 (16.07)	0.48
	Female	129.97 (13.89)	

SPL: students' perceptions of learning; SPT: students' perceptions of teaching; SASP: students' academic self-perceptions; SPA: students' perceptions of atmosphere; SSSP: students' social self-perceptions; DREEM: Dundee Ready Education Environment Measure; CMOSHMC: Chattagram Maa-O-Shishu Hospital Medical College

ers place emphasis on being patient-centered during their interaction with patients" and item 50 "The students irritate the teachers" consistently scored >3 indicating their agreement with the statement. Item 2 "The teachers are knowledgeable," item 8 "The teachers' ridicule of the students," and item 9 "The teachers are authoritarian" scored <2 by clinical medical students indicating the weakness of the EE.

The analysis of the SASP subscale showed that the global scores for the paraclinical and clinical years were 21.46 and 19.95, respectively, out of 32 (Table 3). Item 27 "I am able to memorize all I need" consistently scored >3. Item 31 "I have learned a lot about empathy in my profession" scored <2 by clinical medical students indicating the weakness of the EE.

The analysis of the SPA subscale showed that the global scores for the paraclinical and clinical years were 34.66 and 32.40, respectively, out of 48 (Table 3). Item 42 "The enjoyment outweighs the stress of studying medicine" consistently scored >3 indicating the strength of the EE. Item 11 "The atmosphere was relaxed during ward teaching" scored >3 by the clinical year medical students, and item 12 "The school is well timetabled" scored >3 by the paraclinical year medical students indicating the strength of EE. Item 35 "I found the experience disappointing" scored >3 by the clinical year medical students indicating that they disagreed with the statement.

The analysis of the SSSP subscale showed that the global scores for the paraclinical and clinical years were 18.61 and 18.19, respectively, out of 28 (Table 3). Item 15 "I have good friends in this school" scored <2 by the clinical year medical students indicating that they disagreed with the statement. Item 3 "There is a good support system for students who get stressed" scored >3 indicating that students were enjoying the EE.

The mean total DREEM score of the present study was 130.46 indicating that the EE of CMOSHMC was more positive than negative (Table 3). Paraclinical students scored statistically significantly higher than clinical students (p=0.040). Paraclinical students also scored statistically significantly higher than clinical students in the SPA domain (p=0.020) and SASP domain (p=0.020) (Table 3).

In relation to sex, SSSP were significantly higher for male students than for female students (p=0.040) (Table 4). There were no significant differences between male and female students with respect to the other domains.

Table 5 shows the respondents' perceptions and interpretation regarding the EE of CMOSHMC. Most of the students said that a positive learning experience (80.6%) and an appropriate teaching method (81.2%) were ongoing in CMOSHMC. They also thought that their academic self-perceptions were positive (77.1%), and they agreed that a positive learning atmosphere (65.9%) was ongoing. They also felt that their social surroundings were in acceptable range (70.6%).

Table 5. Domain interpretation score of CMOSHMC (n=170)

Score based on domain	No. of respondents, n (%)
Students' perceptions of learning	
Very poor	0 (0)
Teaching is viewed negatively	21 (12.4)
A more positive approach	137 (80.6)
Teaching highly thought of	12 (7.1)
Students' perceptions of teaching	
Abysmal	0 (0)
In need of some retraining	17 (10)
Moving in the right direction	138 (81.2)
Model teachers	15 (8.8)
Students' academic self-perceptions	
Feeling of total failure	0 (0)
Many negative aspects	14 (8.2)
Feeling more on the positive side	131 (77.1)
Confident	25 (14.7)
Students' perceptions of atmosphere	
A terrible environment	0 (0)
There are many issues that need changing	2 (1.2)
A more positive atmosphere	112 (65.9)
A good feeling overall	56 (32.9)
Students' social self-perceptions	
Miserable	0 (0)
Not a nice place	19 (11.2)
Not too bad	120 (70.6)
Very good socially	31 (18.2)

CMOSHMC: Chattagram Maa-O-Shishu Hospital Medical College

DISCUSSION

The mean DREEM score of the present study was 130.46 (Table 3). Based on the DREEM practical guideline, the accepted range is 101–150 points (Al-Kabbaa et al., 2012; Al-Naggar et al., 2014; Rahman et al., 2015; Roff et al., 1997; Salam et al., 2014; Swift, Miles, & Lienster, 2013; Tripathy, & Dudani, 2013; Yusoff et al., 2013). Thus, it indicates that students have a "more positive than negative perception" regarding the EE of CMOSHMC. Several studies also reported similar DREEM scores, but Veasuvalingam and Arzuman (2014) and Varma et al. (2005) reported higher total DREEM scores than the present study, indicating that there were rooms for improvement (Abraham et al., 2008; Al-Hazimi, Al-Hyani, & Roff, 2004; Al-Kabbaa et al., 2012; Al-Naggar et al., 2014; Arzuman, Yusoff, & Chit, 2010; Bassaw et al., 2003; Jiffry et al., 2005; Rahman et al., 2015; Thomas et al., 2009; Yusoff et al., 2013). The EE of CMOSHMC needs to provide a more student-centered approach to education.

As is observed in the present study, there were four overall areas of strength: "The teachers place emphasis on being patient-centered during their interaction with patients," "I am able to memorize all I need," "The enjoyment outweighs the stress of studying medicine," and "There is a good support system for students who get stressed." These indicated that the EE is in a healthy state. The faculty members had a good relationship with their patients and students. The teachers are concerned about their patients and student's thinking or feeling and are prepared to provide the best care to them.

In addition to these, there were two overall areas of concern: "I have good friends in this school" and "the students irritate the teachers." It reflected poor social relationships and academic dishonesty among the medical students. A similar result was reported in several studies regarding academic dishonesty, which was an area of concern (Al-Kabbaa et al., 2012; Al-Naggar et al., 2014; Rahman et al., 2015; Yusoff et al., 2013). The medical college should look carefully to improve the social relationships of the students with their peer. Issues should be taken to avoid unnecessary stress for the medical students.

The present study also showed the strengths and weakness of each phase of medical training. It was observed that the paraclinical phase scored the highest (131.80/200) than the clinical phase (126.51/200), which was statistically significant (p=0.040). Overall, all phases of medical training showed a "more positive than negative perception" regarding the EE of CMOSHMC. Paraclinical students also scored statistically significantly higher than clinical students in the SPA domain (p=0.020) and SASP domain (p=0.020). The SPA domain influences "learning and teaching." It is essential to improve the atmospheres in the clinical phase.

The strength of the paraclinical phase was "The school is well timetabled," and the strength of the clinical phase was "The atmosphere was relaxed during ward teaching." The weakness of the paraclinical phase was "I found the experience disappointing." There were more weaknesses in the clinical phase: "The teachers are knowledgeable," "The teachers ridicule the students," "The teachers are authoritarian," "I have learned a lot about empathy in my profession," and "I found the experience disappointing." Several studies also reported similar findings especially in the clinical phase (Abraham et al., 2008; Al-Hazimi, Al-Hyani, & Roff, 2004; Al-Kabbaa et al., 2012; Al-Naggar et al., 2014; Bassaw, 2003; Jiffry et al., 2005; Requelme et al., 2009; Yusoff et al., 2013). It indicated that the teachers were harsh to the students during the teaching session that would damage the teaching quality. The students perceived that the teachers poorly take care of them during the teaching session. It would lead to less interest in the teaching session and unproductive learning experience among the students. Students expect some improvement in the teaching methodology. The teachers need to be more careful about this matter. In relation to sex, SSSP were significantly higher for male students than for female students (p=0.040). There were no significant differences between male and female students with respect to the other domains. However, Rahman et al. reported a significant difference between male and female students in all domains (Rahman et al., 2015).

CONCLUSION AND RECOMMENDATIONS

The result of the present study indicates that students have a more positive than negative perception regarding the EE of CMOSHMC. Overall, paraclinical students have more positive perception than clinical students, especially regarding SASP and SPA. Male students have a more positive perception in SSSP. Thus, the result of the present study will be helpful to take effective measures to improve the teaching and learning environment of the medical college in which they belong.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Institutional Review Board (IRB), Chattagram Maa-O-Shishu Hospital Medical College. Agrabad, Chittagong, Bangladesh for the study "Students based analysis of perception regarding educational environment using DREEM questionnaire at Chattagram Maa-O-Shishu Hospital Medical College". Ethical approval signed by the Chairman and Member Sectary of IRB dated April 10-2016.

Informed Consent: Written consent was then obtained before the questionnaires were distributed.

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