

Dental students' perception regarding their training on geriatrics

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ABSTRACT

Objective: This study presents findings of the first study developed in Brazil, using the Dundee Ready Educational Environment Measure (DREEM) instrument, to evaluate students' perceptions regarding the learning environment through an undergraduate dentistry course. Particularly, the aim was to evaluate geriatrics learning and training process outside the university boundaries during an outreach program.

Materials and Methods: It was a descriptive study by means of the DREEM questionnaire applied in 114 undergraduate students from the Federal University of Rio Grande do Sul. Data analysis was performed by means of ANOVA statistical test with SPSS software.

Results: Average DREEM score, of all domains of the questionnaire, is higher for females with a good perception and younger males have a more positive self-perception of their academic life.

Conclusions: The course of geriatrics at the studied university faces some potential facts, but at the same time, presents absence of a psychological support to the student and this reflects their perceptions of self-learning.

Key words: Dental; education, dental; perception, social environment, students

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Introduction


In the constant and current quest for curriculum updating, the Faculty of Dentistry at the Federal University of Rio Grande do Sul/FO-UFRGS restructured its dentistry course curriculum in 2005. The dentistry course introduced the geriatrics course in its syllabus, to enable the student to understand, analyze, and interpret the phenomena of aging, diagnose the most prevalent oral disease in old age, and perform dental care, including palliative dental care, to this population. The dental care service offered by means of the course of geriatrics at this Faculty of Dentistry takes place in a nursing home, which has all dental resources and equipment to dental assistance to the independent and frail elderly. It happens outside the university infrastructure

boundaries by means of an outreach clinical experience program. Furthermore, delivering dental care in a nursing home is the first time that FO-UFRGS students face a learning process outside the university. Once a week, about 35 students and 2 professors go to the nursing home and perform dental assistance during a 4-h-shift. On the site, professors and students offer dental assistance to the independent and frail elderly in wheelchair or those bedridden. Furthermore, students perform palliative dental care to the very old elderly. It is an important undergraduate training experience regarding end-of-life dental care. Toward this, students learn how to deal with the elderly patients and develop dental treatment to independent and dependent elderly, with the professorial support.

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How to cite this article: Souza LG, De Marchi RJ, Mestriner SF, Bulgarelli PT, Bulgarelli AF. Dental students' perception regarding their training on geriatrics. *J Educ Ethics Dent* 2017;7:15-8.

| Access this article online | |
|---|--|
| Quick Response Code:  | Website: www.jeed.in |
| | DOI: 10.4103/jeed.jeed_37_15 |

In Brazil, psychometric studies, enfolding perceptions about the educational environment for dentist training in outreach programs, are still scarce. Studies related with the perception of the educational environment of geriatrics at a dental course are rare. Therefore, the present study was carried out with the purpose of accessing student's perceptions regarding their learning experience during a course of geriatric dentistry from a dental course in Brazil.

Materials and Methods

This is a cross-sectional noninterventive study developed by means of the Dundee Ready Education Environment Measure (DREEM) questionnaire associated with information such as participants' gender and age. DREEM is a reliable inventory, which was translated into Portuguese language and has been applied in Brazil since then by means of the Brazilian Version of DREEM.^[1,2] This measuring instrument consists of fifty questions (5-point Likert scale: 0 – strongly disagree to 5 – strongly agree) relevant to the education environment. Items with a mean score of 3 and above are considered positive and items with a mean score of 2 and below are considered negative situations. Studies that are developed in Sri Lanka and in many health professional institutions showed that mean scores between 2 and 3 represent the aspects of education environment considered to be improved.^[3,4] DREEM has five domains and a total score of 200, which indicates an ideal education environment. The domains comprise the students' perception of (1) the learning process; (2) the professor teaching; (3) the academic self-perception; (4) the atmosphere; and (5) the social self-perception.^[1,2]

The participants consisted of dental students enrolled in the course of geriatrics dentistry offered by the Faculty of Dentistry at UFRGS. All students who accomplished geriatrics during 2013–2014 were invited to participate in the study and 114 accepted. At the end of the course, students were given an information sheet about the research, and informed consent was obtained. The university's Research and Ethics Committee previously approved the study (Protocol number: 24806/2013). Data were analyzed by means of the statistical package SPSS v21 (Chicago: USA. SPSS. IBM® Inc). One-way ANOVA and independent samples *t*-test were used to observe significance between some subgroups. To perform this proposed statistical analysis of the data addressing the 50-item scores and each

domain's scores, the results were expressed as mean + standard deviation and percentage value.

Results and Discussion

In this study, the reliability of the DREEM was strong (Cronbach's alpha = 0.86). Studies in the literature present variation of Cronbach's alpha between 0.85 and 0.91.^[5,6] In the present study, there were 114 respondents to the DREEM questionnaire, with females accounting for 71% ($n = 81$). The mean age was 22.26 years and students with age below the mean accounted for 62.3% ($n = 71$). Of the fifty items of the questionnaire, three items were found to be above 3 and below 2, which reflects the highlighted points of student perception [e.g., Table 1]. The DREEM score was higher for females than males, but a summary of mean and standard deviation scores indicates no significant difference. When perception was analyzed by age, significant differences were found in the perception of teaching ($P = 0.003$) and atmosphere ($P = 0.001$) regarding student aged 22 or less. Higher ages evaluate more positively those two domains. When performing an ANOVA test, it was observed that younger men are associated with higher scores of good perception of learning and good perception of their own social life [Table 2].

The results presented are from a first reliable study that analyzes students' perception regarding geriatrics dentistry training in Latin America using the DREEM questionnaire. This instrument is important to assess the educational environment surrounding the student's life and it is useful to health courses.^[7] In Brazil, its usefulness is associated with undergraduate and graduate health courses. The Portuguese version of DREEM is being used by some Brazilian medical schools.^[2] This assessment instrument and the results of the present study provide relevant information to dental educators who seek to promote a good environment to geriatrics teaching.

The learning and training environment is not only an important determinant to the dental course curriculum, but also a space where the behavior of students and teachers is constructed together. The educational environment embraces several factors that contribute to learning, which is associated with students' and professors' perceptions and experiences.^[8,9] Thus, the literature showed that student's behavior is also determined by the learning environment characteristics and

Table 1: Dundee Ready Education Environment Measure questions with scores >3 or <2

| DREEM questions | DREEM domain/self-perception | Mean score |
|--|------------------------------|------------|
| Do you have a pleasant accommodation for living? | Social life | 4.37 |
| Does the atmosphere motivate me as a learner? | Atmosphere | 4.32 |
| Is geriatrics important to dental education? | Academic | 3.99 |
| Do you know the aim of geriatrics subject? | Learning | 3.99 |
| Do you have any psychological support at university? | Social life | 1.61 |
| Does the professor minimize the student? | Professor teaching | 1.68 |

DREEM: Dundee Ready Education Environment Measure. Geriatrics course at Federal University of Rio Grande do Sul, Brazil, 2016

Table 2: Students' perceptions regarding their training

| Age | Gender (n) | Learning process | Professor teaching | Academic self-perception | Atmosphere | Social self-perception | P |
|-------|-------------|------------------|--------------------|--------------------------|------------|------------------------|--------|
| ≥22 | Male (19) | 44.10±4.58 | 38.68±2.45 | 29.26±3.85 | 41.26±3.50 | 26.31±2.70 | <0.00* |
| | Female (52) | 42.98±5.18 | 38.96±3.94 | 29.25±3.53 | 42.17±3.22 | 24.75±2.34 | |
| | Total (71) | 43.28±5.04 | 38.88±3.51 | 29.25±3.59 | 41.92±3.30 | 25.16±2.52 | |
| >22 | Male (14) | 43.92±4.10 | 38.57±3.41 | 30.50±2.98 | 40.85±1.74 | 22.35±3.67 | <0.00* |
| | Female (29) | 43.82±4.93 | 38.72±3.29 | 29.55±3.77 | 41.06±4.48 | 25.24±2.41 | |
| | Total (43) | 43.86±4.63 | 38.67±3.27 | 29.86±3.52 | 41.00±3.79 | 24.30±3.15 | |
| Total | Male (33) | 44.03±4.38 | 38.63±2.84 | 29.78±3.51 | 41.09±2.86 | 24.63±3.68 | <0.00* |
| | Female (81) | 43.28±5.08 | 38.87±3.70 | 29.35±3.60 | 41.77±3.73 | 24.92±2.36 | |
| | Total (114) | 43.50±4.88 | 38.80±3.46 | 29.48±3.56 | 41.57±3.50 | 24.84±2.79 | |

*ANOVA test. Geriatrics course at Federal University of Rio Grande do Sul, Brazil. 2016

contemporary international trends.^[2,4,10] The learning environment can influence the comprehensive formation of the students, their social responsibility, and act based on professors' and mentors' guidance. A Latin American study, regarding dental students' perception, presented information that the learning environment keeps the student participatory and proactive, with updated teaching methods, and motivates them to provide further professional challenges.^[6]

The average DREEM score is higher for females. This finding is similar to another study which showed that females had a more positive perception of the education environment.^[3] However, young men have a more positive perception of their self-social life which reflects in positive self-perception of their academic life. A study from Saudi Arabia, with the similar results, showed that problems in social life increase students' failure and lead to low achievements.^[11] According to the students' perception, findings of the present study corroborate with literature, which shows that professors do not minimize students in the academic environment.^[6,9,11,12]

One of the weaknesses of the geriatrics at UFRGS, shown by means of the student perception, is the absence of a psychological support in case of being emotionally stressed. An environment at a nursing home sometimes can be very sad and stressful and the student may need a psychological support, added to the professor support, to face this reality. At the same time, students perceive that geriatrics is important to their education and the nursing home environment motivates them to learn geriatrics. Some studies show similar perceptions regarding these topics.^[3,6]

The association between gender and age to the five DREEM domains is similar, but young men report positive perceptions in domains associated with social life and self-learning. The perception of the academic learning environment by gender is something that was identified in other studies with DREEM.^[5,12,13] Disparity between genders suggests that female students perceive curriculum, structure, and goals more positively than male students,^[5] probably because they exhibit different learning styles.

Conclusions

The students from the south of Brazil recognize the importance of the course of geriatrics to their education and training. Furthermore, they recognize the importance of learning outside the university boundaries. According to students' perception of the learning environment, young men have a positive perception on DREEM domains and at the same time, they need more psychological support during accomplishing the geriatrics subject. Those situations might help educators, from all over the world, when developing and applying geriatrics at a dentistry course and other courses that are possibly overgrown of emotional stress to the student.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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