



Comparison of two educational environments in early clinical exposure program based on Dundee Ready Educational Environment Measure

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Abstract

Introduction: The undergraduate curriculum of Shiraz medical school underwent a major reform during the recent years. It comprised of integrated education, supplemented with an early clinical experience program. This study was carried out to find out how early experience in clinical experience affects medical students' perception and identify strengths and limitations of the available methods and the environment of its delivery.

Methods: During the academic year 2011-2012, this descriptive study was undertaken and the subjects were first year students studying medicine at Shiraz University of Medical Sciences using a DREEM questionnaire.

Results: The DREEM questionnaire showed evidence of desirable educational climate during the program. Overall, 98 percent of the students were satisfied with the course and believed that the program helped them to become more familiar with the clinical environment and reduce their fear.

Conclusion: The students' satisfaction and their positive attitudes toward early clinical exposure suggested that this program improve the quality of basic science courses and implementation of personal and professional identity and also reduce students' stress of hospital practice.

Keywords: Education, Early clinical exposure, Educational environment

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Introduction

Different teaching methods have been used to introduce an Early Clinical Exposure program consisting of patients- based visit and a hospital round to learn about patients' needs and health care system to both increase students' interest and enhance their learning(1). Recommendations for 'Tomorrow's Doctors' have stimulated educational innovations and new curricula in British medical schools(2).

Measurement of the learning environment is a way of evaluating the quality of the educational practice in order to identify the strengths and weaknesses of curriculum change as a baseline for improving a learning environment and introducing appropriate changes(3). The Dundee Ready Education Environment Measure (DREEM) is specific to the environment experienced by medical students in healthcare related courses (4,5).

This study was carried out to compare the perceptions created by educational environment in

first year undergraduate medical students exposed to the two different modalities of early clinical exposure.

Methods

During the academic year 2011-2012, this descriptive study was undertaken. The subjects were first year students studying medicine at Shiraz University of Medical Sciences and the instrument used was the DREEM questionnaire. The original DREEM questionnaire could not be used because of national and cultural inconsistency, so after some brief changes the questionnaire was tailored to our program with 43 items: students' perceptions of learning, students' perceptions of atmosphere, students' perceptions of teachers, students' academic self-perception, students' social self perception.

The validity of this questionnaire was confirmed by comments of experts in medical education and its reliability was confirmed by the test-retest method. All 86 first year medical students were divided randomly

into two equal groups (n=43).

In the first group, the students became familiar with Nemazi hospital environment and quickly rounded some hospitalized patients with their medical teacher and the second group, divided into smaller subgroups, directly visited the patients at the bedside with senior moderators and after taking a history and physical examination began to talk and discuss patients' condition with the medical teacher.

Finally, the questionnaire was distributed among the students. They were asked to read each item carefully and then answer using a 5 point Likert-type scale from strongly agree to strongly disagree. The students responded the questionnaire anonymously and the data was collected by the students' representative.

The respondents consisted of 22 (51%) and 36 (84%) students in the first and second groups, respectively.

Each item was scored on a Likert scale ranging from zero to 4 with scores of 0, 1, 2, 3 and 4 categorized as strongly disagree, disagree, uncertain, agree and strongly agree, respectively. The negative items were scored reversely. Based on the modified questionnaire, the total maximum score for all subscales was 172 indicating the ideal educational environment according to the respondents.

Zero to 43 points are very unfavourable and would be a very worrying result, 44 to 86 unfavourable, 87 to 129 favourable and 130 to 172 are very good or ideal.

Regarding the responses to individual items, the DREEM can also show more specific strengths and weaknesses. For example, statements with a mean score of 3 or more were taken as positive and statements with a mean score of 2 or less indicated problem areas. Statements with a mean between 2 and 3 were considered as areas that could be improved (6).

Results

Out of a possible total 172 across five educational subscales, the DREEM questionnaire yielded an average score of 103 in Group one and 110 in the group two, both showing evidence of desirable educational climate during the program.

The students were found to be more satisfied with the learning environment for group 1 (as indicated by their higher DREEM score) compared to that for group 2.

The mean score on the domains of students' perception of learning, students' perception of teachers, and students' perception of the environment were more in group two, and the scores on students' social self perception and students' academic self-perception were higher in Group one although there was no significant difference between the two groups.

Overall, 98 percent of the students were satisfied with the course and believed that the program helped

them to become more familiar with the clinical environment and reduce their fear.

Conclusion

The students' satisfaction and their positive attitudes toward early clinical exposure suggested that this program improve the quality of basic science courses and implementation of personal and professional identity. It also reduces students' stress of hospital practice. Regarding the strengths and shortcomings of each method applied in this study, the problem areas should be remediated and an integrated method based on successful elements must be considered in different stages of future planning.

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