

Original Research Article

Do social factors influence learning among undergraduate medical students? A cross sectional analytical study

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ABSTRACT

Background: Student self-assessment occurs when learners make judgments about aspects of their own performance. There are several social, educational, demographic and environmental factors that have a direct bearing on learning. This study helps to identify these. The objectives of this study are to assess student's ability to cope with academic environment based on their self-evaluation and to study the effect of socio-demographic factors on their academic coping ability.

Methods: The present cross section study was done in Gandhi Medical College on all first year MBBS students. It was conducted between 1st January to 20th January 2016. A pre designed pre structured self-administered questionnaire was given to all students willing to participate in the study. The responses were analysed to study the influence of social factors on student learning outcomes. The study participants included a total of 179 students.

Results: This study found that majority of the students (64.2%) were 18 years old. Most of the students (89%) belonged to urban area; fathers of majority of students (49.2%) were professional degree holders. Majority (97%) students were educated in English medium but majority (70.9%) students communicated with friends in Telugu. A majority of 54% felt that teachers should local language also during lectures to prevent language barrier while learning.

Conclusions: We found that students educated in Telugu medium and students with fathers engaged in unskilled occupations showed poorer coping ability with an odds ratio of 9.1 and 3.2 respectively at 95% CI.

Keywords: Barriers in learning, Medical students

INTRODUCTION

Student self-assessment occurs when learners make judgments about aspects of their own performance.¹ The role of such assessment is to detect and highlight differences in student learning and to understand what cause these differences.² There are several social, educational, demographic and environmental factors that have a direct bearing on learning.³ These factors must be identified and specific concerns addressed if we are to

make medical education more responsive to the need of students. In the Indian setting these concerns are rarely addressed.

Gandhi Medical College, Secunderabad sees a lot of students from rural backgrounds and poorer socio-economic strata. This study helps instructors understand the emotional dynamics of students which are often inaccessible to us in our routine as instructors.⁴ This will make medical education more effective and truly

accessible to all type of students: No such study has been done in this setting

Objectives

1. To assess student’s ability to cope with academic environment based on their self-evaluation.
2. To study the effect of socio-demographic factors on their ability to cope.

METHODS

The present cross section study was done in Gandhi Medical College on all first year MBBS students. This study was conducted between 1st January to 20th January 2016. A pre designed pre structured questionnaire was used and distributed to students. It was self-administered in nature. The questionnaire has two parts. First part contains questions on student information such as age, sex, medium of study till 10th class, profession of father. For the purpose of analysis, students with fathers engaged in unskilled and semi-skilled were grouped under unskilled and those with fathers engaged in skilled and professional occupations were grouped under skilled. Second part contains questions on student self-assessment scaled on a Likert’s scale which was developed for the purpose of this study after conducting a pilot study to check for content validity. The pilot study was conducted from 1st to 8th of December on 20 students to pretest the questionnaire and assess feasibility of the study. It contains questions like ‘I feel a language barrier exists in my learning at college’, ‘I feel out of place in college surroundings’, ‘I am able to ask and answer questions in class’ etc. Responses were scaled on the Likerts scale as ‘always’, ‘most of the time’, ‘sometimes’ & ‘never’. Necessary modifications were made and a modified questionnaire was prepared. Students with scores corresponding to ‘always’ and ‘most of the time’ were considered to be coping well with the current academic environment and students with scores corresponding to ‘sometimes’ and ‘never’ were considered to be coping poorly. Students were approached after their morning session of classes. The nature of the questions and the purpose of the study were explained and the questionnaires were distributed. A drop box was placed outside the class for collection of responses. Confidentiality was maintained and verbal informed consent was taken for participation in the study. The responses were analyzed to study the influence of social

factors on student learning outcomes. The study participants included a total of 179 students.

The data was entered in excel sheet and analysed for proportions. Risk factors associated with poor ability to cope with academics were estimated using odds ratio and 95% confidence intervals. Chi square test was performed to assess statistical significance (p<0.05%).

RESULTS

The study consisted of a total of 179 students of whom 123 (69%) were females and 56 (31%) were males. A total of 115 (64.2%) were 18 years old, followed by 41 (22.9%) students who were 17 years old, 19 (10.7%) who were 19 years old, 21 (1.1%) who were 20 years old and 2 (1.1%) who were 21 years old. 20 (11%) students belonged to rural area and 159 (89%) belonged to urban area. Father’s of 17 students (9.5%) were occupied in unskilled work, 24 (13.4%) students fathers were engaged in semiskilled work, 50 (27.9%) in skilled work and 88 (49.2%) fathers were professional degree holders. Total of 173 (97%) students were educated in English medium and only 6 students (3%) were Telugu medium educated. However, a majority of 127 students (70.9%) communicated with friends in Telugu, 50 (27.9%) students communicated in English and 2 (1.1%) communicated in Hindi. A majority of 54% (96 students) felt that teachers should try to use local language also during lectures so as to prevent language barrier in their learning. 83 students (46%) felt communication in English alone was sufficient.

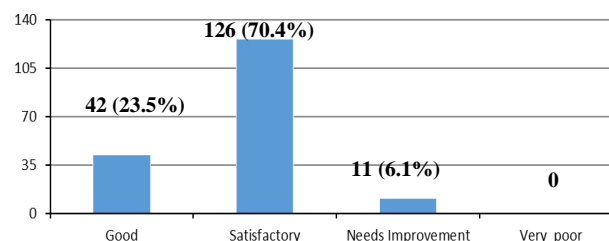


Figure 1: Distribution of study subjects based on their self-assessment scores (n=179).

A total of 42 students (23.5%) had good scores, 126 (70.4%) had satisfactory scores, 11 (6.1%) scored ‘needs improvement’, and none of the students scored ‘very poor’.

Table 1: Association between medium of study till class 10 and coping ability (n=179).

	Coping well	Coping poorly	Total	OR (95% CI)
English	164 (94.8%)	9 (5.2%)	173 (100%)	9.1* (1.5-56.5)
Telugu	4 (66.7%)	2 (33.3%)	6 (100%)	
Total	168 (93.9%)	11 (6.1%)	179 (100%)	

*p <0.05.

A total of 164 students who studied in English medium were coping well as opposed to only 4 students from Telugu medium who were coping well. This association between medium of study till class 10 and coping ability

was found to be statistically significant with English medium educated students who were 9.1 times better at coping with medical curriculum as compared to Telugu medium educated students.

Table 2: Association between place of residence and coping ability (n=179).

	Coping well	Coping poorly	Total	OR (95% CI)
Urban	150 (94.3%)	9 (5.7%)	159 (100%)	1.85 (0.4-9.2)
Rural	18 (90%)	2 (10%)	20 (100%)	
Total	168 (93.9%)	11 (6.1%)	179 (100%)	

Table 3: Association between father’s occupation and coping ability (n=179).

	Coping well	Coping poorly	Total	OR (95% CI)
Skilled	131 (94.9%)	7 (5.1%)	138 (100%)	3.2* (1-10.2)
Unskilled	35 (85.4%)	6 (14.6%)	41 (100%)	
Total	166 (92.7%)	13 (7.3%)	179 (100%)	

*p <0.05

A total of 150 students who resided in urban areas were coping well as opposed to only 18 students from rural areas who were coping well. This association between place of residence and coping ability was not found to be statistically significant (p>0.05).

A total of 131 students whose fathers were involved in skilled work were coping well as opposed to only 35 students whose fathers were engaged in unskilled work who were coping well. This association nature of father’s occupation and coping ability was found to be statistically significant with students of fathers in skilled professions 3.2 times better at coping compared to students of fathers in unskilled professions.

DISCUSSION

A total of 42 students (23.5%) had good scores, 126 (70.4%) had satisfactory scores, 11 (6.1%) scored needs improvement, and none of the students scored very poor.

These findings are in agreement with study done by Sabbour et al in Egypt where a majority of students (56.3%) were coping well.⁵ A majority of students in our study (70.9%) preferred to communicate in Telugu. These findings were in agreement with those of Sabbaur et al where a majority (70.6%) preferred Arabic over their medium of instruction i.e. English.⁵

A total of 164 students who studied in English medium were coping well as opposed to only 4 students from Telugu medium who were coping well. This association between medium of study till class 10 and coping ability was found to be statistically significant with English medium educated students who were 9.1 times better at coping with medical curriculum as compared to Telugu medium educated students.

This is in agreement with studies done by Sabbaur et al where a majority of students (57%) who were traditionally Arabic educated were coping poorly compared to 43% of English medium educated students.⁵ Our results were also in agreement with the study done by Dolhun et al in U.S.A where 59% of immigrant students communicating in their native tongues were coping poorly with medical academic environment.⁶ Study done by Solet et al found similar results.⁷

A total of 150 students who resided in urban areas were coping well as opposed to only 18 students from rural areas who were coping well. This association between place of residence and coping ability was not found to be statistically significant (p>0.05). Our results were in agreement with the results of study done by Dolhun et al where students from rural settings (23.2%) coped poorly compared to urban students.⁶ This association was however statistically not significant p<0.05.

A total of 131 students whose fathers were involved in skilled work were coping well as opposed to only 35 students whose fathers were engaged in unskilled work who were coping well. This association nature of father’s occupation and coping ability was found to be statistically significant with students of fathers in skilled professions 3.2 times better at coping compared to students of fathers in unskilled professions. Our study findings were in agreement with the study done by Sabbaur et al where students with professional fathers were 1.8 times better at coping with the medical academic curriculum compared with non-professional fathers.⁵

CONCLUSION

Students educated in Telugu medium till 10th class & students with fathers engaged in unskilled occupations

showed poorer coping ability. This association was statistically significant.

Recommendations

Teachers should be trained & sensitized to identify the special needs of these students. Their social rehabilitation is necessary which should happen in a cordial and trusting environment. Interactive exercise with other students should be organized to help their better integration.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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