

Mentoring: The Need for Medical Undergraduates

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Abstract: Medical education, though respected in the society, has always been regarded as a highly stressful profession. Such a stressful environment can often exert a negative effect on the academic performance, physical health and psychological well being of the medical undergraduate. The present study was done to find out routine life events and academic difficulties faced by the medical undergraduates (hostelites as well as nonhostelites), their coping strategies to stressful events, their psychological needs in career as well as academic life. Based on data collection from the modified questionnaires it was found that hostelites faced more tough life events in their campus lives. They were found to have difficulty in understanding of subjects but at the same time had cordial relations with hostel friends, colleague, and seniors as well as with junior faculty members too as compared to non hostelites. Coping strategies of all hostelites and non hostelites of I and II year students for overcoming academic stress and routine event stress were miniscule and they would greatly benefit from proper guidance and psychological support for their career development. Thus, in order to fulfill this requirement, the suggestion of establishment of mentoring cell, with proper co-ordination from the Dean's office, would help in fostering mentor –mentee relationship.

Key words: Hostelites, mentor, medical undergraduates, nonhostelites

INTRODUCTION

Medical education though respected in the society, is a highly stressful profession. Only the cream of population in the society is eligible for medical education (Ko *et al.*, 1999). A stressful environment can often exert a negative effect on the academic performance, physical health and psychological wellbeing of the medical undergraduates. (Ko *et al.*, 1999).

During their undergraduate medical tenure; students are expected to imbibe and master an avalanche of knowledge. (Ko *et al.*, 1999). In order to excel in the academic career, students have to make tremendous personal and social sacrifices. Such a highly achievement oriented and competitive environment would definitely make medical undergraduates perturbed. While many students may develop to their fullest intellectual potential however, others may break down (Garmel, 2004).

These psychological casualties are a waste of valuable human resources. Many schools of thoughts consistently comment that professionals with strong mentors are more productive and have a greater satisfaction in the career and the personal life (Paice *et al.*, 2002). Thus, mentoring is an important aspect of career development for medical students, residents and

junior faculty (Garmel, 2004). It is an important process for the professional growth and maturation of individuals early in each phase of their career. Many professional societies have formal mentoring programs, especially in business and nursing. Mentor relationships though informally encouraged, lack proactive nurturing in the medical specialties (Garmel, 2004).

Mentoring, being a lifelong process is a highly personal and individualized form of educational service, which by the virtue of its dynamic nature is constantly evolving over a period of time. Therefore, both parties can continuously define and redefine their roles (Waugh, 2002). Since it is essentially an intentional process of interaction between two individuals, it includes nurturing, growth promoting and developing career of the mentee. Thus, it is a supportive and often protective process (Garmel, 2004).

Effectiveness of any mentoring relationship depends upon the openness of both mentor and mentee; for e.g. if relevant in current situation, personal experiences and struggles shared by the mentor, would definitely inspire mentee (Garmel, 2004). Thus, such process helps the students to blossom and come out with flying colors in spite of adverse situations. Few studies have been conducted on the mentorship and adult learners and very

few on mentoring between faculty and medical students. Literature survey indicates that students having a mentor were more successful and satisfied in their career as well as personal life (Ramanan *et al.*, 2006). With this background, the present study was carried out to establish the mentoring cell at institutional levels for various academic years in medical undergraduates. In this study, the coping strategies of hostelites and nonhostelites with daily activities, hostel life, stressful events in academic and hostel life, their relationship with batch mates and teachers, nutrition, and academic performance were analyzed.

MATERIALS AND METHODS

This study was carried out at MGM's Medical College, Kamothe, Navi Mumbai, Maharashtra, India, in a period of 2008-2009. The prospective study was carried out following Institutional Review Board approval. Initially informed consent document were sought from the students who were willing to participate in this study. Self administered questionnaire was distributed to all first, and second year students who were enrolled at the MGM Medical College, Kamothe, Navi Mumbai.

The questions in the questionnaire were derived from the literature (Garmel, 2004; Lartey, 2009) and a focus group discussion. The focus group discussion was conducted with 8-10 students of each year during the month of August and September 2008 in order to identify their needs. The draft questionnaires were sent to five experts in the field of medical education as well as to the clinical psychologist for review. Comments and suggestions made were incorporated into the final design. These modified pre-validated questionnaires were used in this study.

The students of first year (n = 83) and second year (n = 103 including casual batch students) were administered an exhaustive questionnaire (modified pre-validated) aimed at probing the various aspects of the medical life in the campus as well as in the hostel. Hostelites also included those students who though not staying in the campus hostel were staying in rented accommodation nearby. To increase the response rate; representative of each undergraduate medical class, and coordinator of each academic year were contacted. They were urged to encourage their batch mates to participate in the study.

Basic information gathered included age, gender, place of residence (hostelites and nonhostelites) and nationality. Questions related to demographic characteristics, socio-economic statuses as well as modified version of Life Event Scale (Yvonne and Ylanko, 1984) along with the stress coping strategies were recorded.

Questions related to the study, hostel life, traveling and relationship with college friends, dress code and knowledge of banking transactions were also included. The students were asked to complete questionnaire and informed consent. This study was the first of its kind carried out in our college in order to evaluate the specific needs of the hostelites and non hostelites medical undergraduates and to lay down the foundation for the establishment of Mentoring Cell in our medical college. Confidentiality was maintained throughout the study.

Data analysis: Only questionnaires with complete background and demographic information were coded and recorded in a computer. Questionnaires with missing background and demographic information were not recorded and were excluded from the study. The data analysis was done by using Likert scale where 4 is assigned to most positive response and 1 to extreme negative response.

The commonest life events experienced in the past 9 months by the undergraduate medical students were:

Communication with teacher as well as colleague: Thirty-five percent from Ist Year and only 8% from II year students were found to have a greater difficulty in communicating with teachers and colleagues. Especially first year students found greater difficulty in communicating and approaching to the teacher (Table 1 and 2).

Difficulty in understanding of subject: Eighty six percent from Ist year undergraduates found medical subjects difficult to understand and grasp while 14% found that all medical subjects were extremely difficult to understand and grasp. On the contrary, only 45% IInd year undergraduates complained about subject difficulty and understanding of subjects. In IInd year 50% students specified that understanding and grasping power of subject improves in second year (Table 1-2).

Personal care: Thirty three percent of Ist year students observed that they got little time for personal care and sleeping while 67% students complained about lack of time for personal care and insufficient time for sleeping. Their major concern was food available in the mess. Due to poor quality of food in mess, 67% of Ist year undergraduates turned to junk food as an alternative in order to satiate their appetite. On the contrary, only 25% II year undergraduates complained about lack of time for sleeping and time for personal care with 70% having no issue about the mess food, time for sleep and personal care (Table 1-2).

Coping strategies with stress and career choice: Both Ist and IInd year undergraduates unanimously agreed that

Table 1: Comparison between first and second year MBBS

S.No.	Factors included in GHQ	I-Year MBBS (%) = 83			II-Year MBBS (%) = 100			p -value by using chi square test
		Highest (%)	Moderate (%)	Negative (%)	Highest thinker (%)	Moderate (%)	Negative thinker (%)	
1	Relation with Friends/Teacher	0	65	35	52	40	08	<0.0001
2	Understanding of subjects	0	86	14	50	45	5	<0.0001
3	Personal care	0	33	67	5	70	25	<0.0001
4	Coping strategies with stress and career	0	0	100*	0	0	100*	<0.0001
5	Leisure activities	0	99	1	0	56	44	<0.0001
6	Socioeconomic status	2	95	3	0	76	24	<0.0001

Table 2: Overall comparison of GHQ between hostelites and nonhostelites of first and second year MBBS

S.No.	Factors included in GHQ	I-Year MBBS (%)						II-Year MBBS (%)					
		Highest		Moderate		Negative thinker		Highest		Moderate		Negative thinker	
		H	NH	H	NH	H	NH	H	NH	H	NH	H	NH
1	Relation with Friends/Teacher	0	0	26 (74%)	27 (56%)	9 (26%)	21 (44%)	14 (52%)	38 (52%)	8 (30%)	32 (44%)	5 (18%)	3 (4%)
2	Understanding of subjects	0	0	30 (86%)	42 (88%)	5 (14%)	6 (12%)	16 (59%)	35 (48%)	7 (26%)	36 (49%)	4 (15%)	2 (3%)
3	Personal care	0	0	14 (40%)	14 (29%)	21 (60%)	34 (71%)	5 (18%)	0 (52%)	14 (77%)	56 (30%)	8 (23%)	17 (23%)
4	Coping strategies with stress and career	0	0	0	0	35 (100%)	100 (100%)	0	0	0	0	27 (100%)	73 (100%)
5	Leisure activities	0	0	35 (100%)	47 (98%)	00	1 (2%)	0	0	18 (67%)	36 (49%)	9 (33%)	37 (51%)
6	Socioeconomic status	-	-	34 (97%)	48 (100%)	1 (3%)	00	0	0	18 (67%)	59 (81%)	9 (33%)	14 (19%)

Ist year: Hostelites, (H) = 35, Nonhostelites (NH) = 48, Total = 83; IInd year: Hostelites (H) = 27, Nonhostelites (NH) = 73, Total = 100

they needed the guidance and moral support in order to face the highly stressful events of medical life (Table 1-2).

Leisure activities: Ninety nine percent of I-year agreed that they got moderately enough time for leisure activity while 44% of II-year complained about total lack of time for recreational and leisure activity (Table 1-2).

Socioeconomic status: Ninety five percent from I-year were moderately tense due to high fee structure and expenditure on medical education. On the contrarily 24% population from II-year undergraduates (only 3% from I-year) felt overburdened by expenditure on medical education and fee structure.

Hostelites faced more real life events than nonhostelites. Hostelites were affected by irregular and disturbed sleep due to mosquitoes and food. 60% hostelites turn to junk food as alternative to fill up the stomach. When faced with problems in studies and in day-to-day activities, more than 86% of hostelites turned to friends and classmates for help, especially in first year (Table 1, 2). The other common avenues of support were the family, hostel friends for hostelites and family (50% nonhostel turn to friends) and religion for nonhostelites. Interestingly 28.57% of the hostelites turn to religion for emotional support. Very few hostelites turned to counsellor for emotional support. 68.57% of hostelites were worried about studies as compared to 31.25 % nonhostelites. From the data related to career guidance,

it was observed that students needed expert guidance and psychosocial support for career development.

The socioeconomic data revealed that majority of undergraduate population were from good economic background. A substantial proportion of students were affected by high fee structure of the medical education as they were not getting any financial support from institution or from any other mean but had to depend on family.

RESULTS

Figure 1a shows in I year 56% (27 out of 48) nonhostelite showed moderate relationship and 74% (26 out of 35) hostelites showed moderate relationship with hostel friends teachers while 44% (21 out of 48) nonhostelites said that friends were indifferent. On the contrary only 26% (9 out of 35) hostelites were in accordance with nonhostelites regarding relationship with friends and teachers. These values are statistically significant for p = 0.0076.

Figure 1b shows in Second year 52% (38 out of 73) nonhostelite showed good relationship and 52% (14 out of 27) hostelites also showed good relationship with hostel friends, teachers while 44% (32 out of 73) nonhostelites showed moderate relationship with friends. On the contrary only 30% (8 out of 27) hostelites were in accordance with nonhostelites regarding relationship with friends and teachers. Only 4% (3 out of 73)

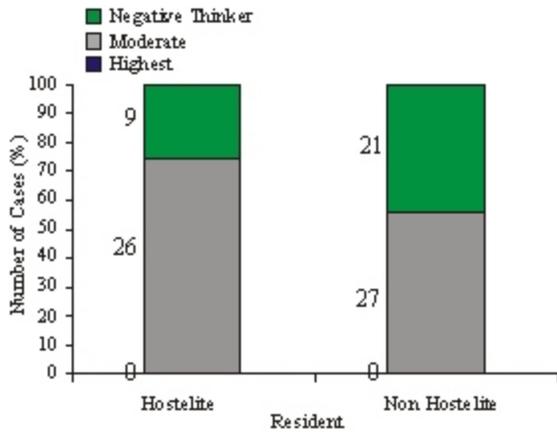


Fig. 1a: Relationship of Ist year medical undergraduates with Friends/Teachers

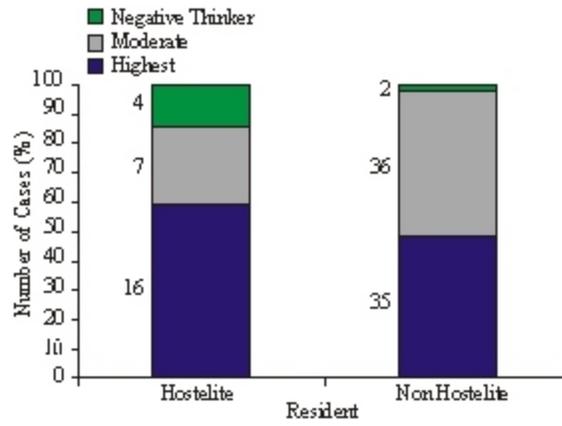


Fig. 2b: Understanding of subjects in IInd year medical undergraduates

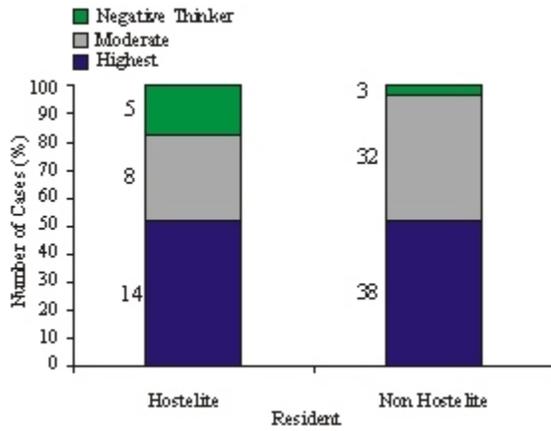


Fig. 1b: Relation of II year medical undergraduates with friends/ teachers

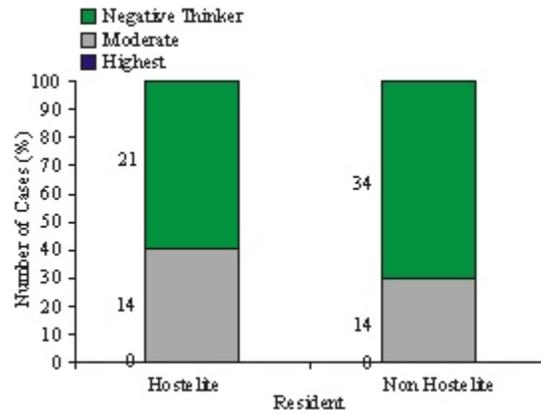


Fig. 3a: Time for personal care for Ist year medical undergraduates

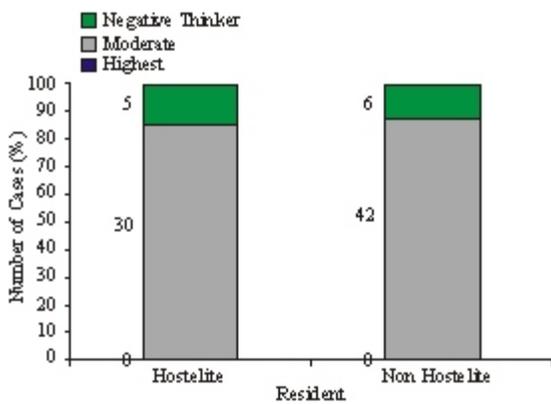


Fig. 2a: Understanding of subjects in Ist year medical undergraduates

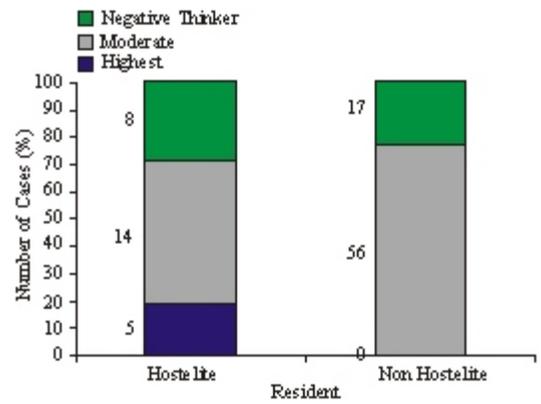


Fig. 3b: Time for personal care for IInd year medical undergraduates

nonhostelites and 18% (5 out of 27) hostelites said teachers and college as well as hostel friends were indifferent. These values are statistically significant for $p = 0.0031$.

Hostelites of first year MBBS (74%) were having cordial relationship with friends and teachers compared to second year MBBS students (30%) but 26% of first year hostelites said friends and teachers were indifferent

compared to 4% second year hostelites. These values were statistically significant at $p < 0.0001$ (Fig. 1a, b).

Figure 2a shows that in Ist year, both hostelites (86%) and non hostelites (88%) had moderate difficulty in understanding of subjects. Figure 2b shows that in IInd year, understanding of subjects improved in hostelites (59%) compared to nonhostelites (48%) but some hostelites (15%) had greater difficulty in understanding of subjects compare to nonhostelites (3%). On the other hand 26% hostelite and 49% nonhostelites showed moderate difficulty in subject understanding. These values were statistically significant at $p = 0.0003$.

When comparison of Ist and IInd year hostelites was done, it was observed that understanding of subjects improved in IInd year hostelites (highest score in 59% of IInd than 0% in Ist year students). Only 3% IInd year hostelites showed difficulty in understanding of subjects compared to 14% Ist year hostelites. These values were statistically significant at $p < 0.0001$ (Fig. 2a, b). In nonhostelites 48% of IInd year showed better understanding of subjects (compared to 0% Ist year nonhostelites). Only 3% IInd year showed great difficulty in subject understanding compared to 12% Ist year nonhostelites. These values were statistically significant at the level of $p < 0.0001$.

Figure 3a shows in Ist year, both hostelites (60%) and nonhostelites (71%) complained about lack of time for personal care. Figure 3b shows in II year only 18% hostelites got enough time for personal care compare to 0% nonhostelites. On the contrary 77% nonhostelites got moderate time for personal care compared to 52% hostelites. While both hostelites (30%) and nonhostelites (23%) unanimously told that there were lack of time for personal care in IInd year medical undergraduates. These values were highly statistically significant at the level of $p = 0.0001$.

When comparison of Ist and IInd year hostelites was done, it was observed that 18% IInd year undergraduates got enough time for personal care than 0% in Ist year students while 40% of Ist and 52% of IInd year students got time for personal care. Only 23% IInd year hostelites complained about lack of time for personal care. On the contrary 60% of Ist year undergraduates were complained badly regarding total lack of time for personal care. These values were statistically significant at the level of $p < 0.0001$ (Fig. 3a, b).

DISCUSSION

Our study was carried out to analyze the need and problems faced by I and II year undergraduate medical students in order to establish the formal mentoring program in the medical school. This study explored various factors influencing the educational development

of the medical undergraduates. Some of these factors had earlier been reported by Ko *et al.* (1999) who found that hostelites and non hostelites shared similar stressful life events like difficulty in understanding the subjects, books as well as lecture, little time for personal activities etc. Busy school work left hostelites little time to exercise. In identifying perceived barriers to good nutrition, the majority of hostel students identified the following time constraints and unavailability of nutritious food.

The curriculum in the tertiary medical education is crammed with information. More emphasis is given on the factual knowledge which is acquired largely through passive learning model by the students (Ko *et al.*, 1999). In a medical school, mid-career faculty members usually have a history of varied jobs and experiences, as well as have an intense quest to teach. Knowledgeable and competent professionals who are one or more career step ahead of the trainee are ideal as mentors and it has been reported that mentors play an active part in the development of young physicians career (Garmel, 2004).

Such persons usually have successfully navigated the professional landscape and thus can provide successful mentoring (Papandimos, 2007). In our data, both Ist and IInd year medical undergraduates faced difficulty in understanding the subjects, lectures, and due to exam tension might become more prone for depression. This is one aspect where a good mentor can make a huge contribution. A true mentor can take teaching as an opportunity to help de stress the tensed students and provide much needed succors to them. Thus a lesson learned today will help to avert tomorrow's catastrophe. Hence, biographies of the faculty interested in mentoring, that include professional and personal interests as well as previous mentoring experiences, should be made available to the students. What the mentor does is important and also who the mentor is matters a great deal (Garmel, 2004). This information can be offered through the Dean's office or during orientation program, or via student association early in the medical school (Garmel, 2004).

It is reported that such relationship facilitates career selection, career advancement, publication productivity, and achievement of grants and funding (Garmel, 2004; Paice *et al.*, 2002). Moreover, being symbiotic, healthy relationship aimed at advancing careers and career satisfaction for both the mentor and the mentee are achieved (Garmel, 2004).

However, care must be taken to maximize the satisfaction and productivity of such a relationship with self-awareness, focus mutual respect and explicit communication about the relationship (Gail *et al.*, 2005).

In this study the various stress factors along with the students' perceptions, their needs were analyzed by administering a questionnaire. It was found that there is an

urgent need for a mentoring cell at institutional level in order to address and fulfill the specific needs of both hostelites and nonhostelites.

CONCLUSION

Medical students dream of a successful medical practice as a professional. But they are often stymied due to numerous pressures of undergraduate studies and a vast curriculum. Coupled with the stressful and new surroundings, they also suffer psychological damage and low self-esteem. Analysis of our data of our study reveals that hostelites need some psychological support, timely help and guidance from teachers or seniors to combat psychological casualties as compared to the nonhostelites. The teaching environment should be a place where students are nurtured and cared for; before their inevitable confrontation with the practice of medicine. (Papandimos, 2007) Good mentor and role models are important to temper their optimism, and to help them to be realistic, not only about their expectations of medical practice, but what society expects from them (Papandimos, 2007).

In this study it was pointed out by the students (hostelites and nonhostelites) that, they were more likely to discuss personal issues with peers and seniors. Professional advice is very much sought after and is found to be beneficial. All these reasons reinforce the value of encouraging successful mentoring relationship at all levels of training program for medical undergraduates.

This study has highlighted the specific needs of the medical undergraduates staying at the campus and off campus. It has also helped to identify some barriers influencing their personal and professional developments, the perceived barrier to study, selection of career, relationship with batch mates, teacher and patients, lack of healthy food, time constraint, language barrier, low socioeconomic status and high fee structure etc., As mentoring skills are valuable assets for academic medicine, faculty should help to shape the professionalism of next generation of physicians (Garmel, 2004).

The mentor serves as a teacher, role model, resource, advisor, supporter, and advocate who work one-on-one with his or her protégé to guide and support him or her through education and training. This support system can be made accessible to the medical undergraduate students

with an established mentoring cell. The above study strongly advocates the need of mentoring cell in the medical college.

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