ORIGINAL ARTICLE

Health status appraisal of women students and correlation with socio-academic outcomes

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Abstract

Background: Mental health is important factor for the maintenance of general health. According to experts of World Health Organization, health is a status of well-being of body, mind, society and not only the lack of disease. The purpose of study was to examine effects of associated factors on health status and academic performance of female students staying at hostel. The study aimed to establish correlations between various factors pertaining to health and academic performance of the students. **Aim:** To find out important predictors of academic performance & mental health of women students. **Methods:** The current study was an observational cross sectional study. The 373 female students taking pharmaceutical education were selected using systematic random sampling. The survey involved meetings of investigators with participants, explanation of study objectives to participants, filling of designed proforma and analysis of collected data. **Results:** Among 373 students; 247 (66.21%) were experienced homesickness initially, 56 (15.01%) students were homesick at the time of survey, while 70 (18.76%) students never experienced homesickness. The 85 (22.78%) students had poor, 212 (56.83%) students had average & 76 (20.37%) students had good academic performance. Majority of students (60.58%) were found to take measures for relieving stress. Out of 85 students having poor academic performance, 47 (55.29%) students were found to be mentally poor. Alternatively, among 152 students with poor mental health, 69 (45.39%) students had poor academic performance. **Conclusion:** Academic related stressors, victimization by tutors, relationship problems with parents and colleagues, homesickness due to staying away from families, conflicts between parents and hesitation to share personal problems with others were found to be important predictors of mental health problems & academic performance of women students.

Key Words

Academic Performance; General Health Questionnaire; Mental Health; Stress; Women Student

Introduction

Mental health is a state in which individual has ability to create harmonious relations with others, manage normal stresses of life, improve the environment, work efficiently and contributes to the community (1,2). The quality of life refers to a person's overall sense of well-being, including all aspects contributing to one's subjective satisfaction. These aspects include health, family, work, social network and residential environment. Quality of life is greatly affected by quality of the environment in which one lives because it is simply the space where most aspects of life are articulated (3). The quality of life of the students who are residing at the hostel depends on the environment and facilities (Quality of living) which are present at their places.

Attending college or university is supposed to be a very pleasing experience that could give satisfaction to students. However, there are many students who are unable to complete their studies. Several factors like functional relationships with teachers, financial status, family burden, academic discipline, adjustment with new environment, program competitiveness, social support, homelessness etc. are contributing to the

health of the students and obviously to their academic performances (4,5). Mental illnesses not only is a key risk factor for someone to become homeless but also increases the social isolation and problems of engagement when delivering health care (6). Cultural and social factors, as well as economic conditions, are significantly related to mental health inequalities (5).

The students perceive academic life as stressful and demanding and report experiencing emotional and cognitive reactions to such stress which is due to external pressures and self-imposed expectations (7). The combination of many stressors of college life, such as planning for future, struggling with exams, coping with demands and challenging professors, transitioning into financial and emotional independence can be an overwhelming experience for many students. Hence, almost all the new students go through an adjustment phase upon entry to a college with each student varied in his or her own pace of development (4). The causes of student's withdrawal from college were academic difficulties, adjustment difficulties, narrow goals, weak commitments, financial inadequacies & isolation. Social isolation is a key factor in the health of homeless people and links the housing and health issues for homeless people. Social isolation means the lack of social networks and not belonging within a community (6).

Depression in the students has been shown to be associated with increased risk of suicidal behaviour, homicidal ideation, tobacco use and other substance abuse into adulthood. It has been noted that the majority of suicides in India are by those below the age of 30 years and also that around 90% of those who die by suicide have a mental disorder. The world health report has quoted India as having a substantial prevalence of childhood and adolescent mental health disorders (8).There are several factors that could be possible predictors of student's life satisfaction, their mental health status is very important. Many studies showed that mental health has effect on life satisfaction. The individuals who have better mental health are more satisfied from their life (9). Untreated mental health problems are significant contributors to graduate student dropout and also for the suicides of the youth. Academic problems and adjustment difficulties are common among students and have been a subject of many investigations (10). Thus, taking into account the recent concerns about poor health & academic related problems of the youth; present survey was conducted to assess the health status of hostel indwelling female students.

Aims & Objectives

This study aims to establish correlations between various factors pertaining to health and academic performance of women students.

Material and Methods

Inclusion criteria: The women students who were staying at the hostel; students taking pharmaceutical education and from the different classes; students with varied socioeconomic status; varied family background; students with good/average/poor academic records were included in this study.

Exclusion criteria: Those participants who hesitated to answer the questions and fill the proforma were not included in this study. **Study design:** The present study was an observational cross sectional study in which students were selected using systematic random sampling. The study was conducted by interviewing every alternate student satisfying the inclusion criteria during data collection. **Study area:** The study was carried out at the Ladies Hostel, Shirpur, Dist- Dhule, within Maharashtra state in India. **Collection of data:** The study involved survey of female students, staying at hostel. About 373 students perusing pharmaceutical education were assessed in this survey. The main objective was to collect data from students staying at hostel. Investigators meet the students in groups during their hostel stay. The details of study were explained to individual student. The voluntary nature of study was emphasized and informed consent was obtained from students who satisfied inclusion criterion. Detailed instructions on how to complete the self-rated questionnaires were given. It was emphasized that information will be kept confidential. The details of psychological and social supports available for students were further mentioned (10).

Data collection involved gathering of information related to different aspects such as name and permanent address of the student, family history, type of family, parent's qualification, conflicts between parents, previous experience to stay in hostel, accommodation problem, hesitation to contact parents, unwillingness to admission, access to pocket money, interactions with other students, homesickness experience and academic performance of the student etc. The socio-economic status was assign on the basis of Kuppuswamy's socioeconomic status scale with brief modifications. The students were classified into three socioeconomic classes: good, average & poor on the basis of education, occupation & monthly family income of parents (11,12). Assessment of academic performance of the student were based on two criteria: marks obtained in previous semester and attendance of student in previous

semester. The previous semester marks were split into three class values on the basis of percentage of marks obtained: Good having more than or equal to 60% marks, Average having marks more than 50% but less than 60% and Poor having marks less than 50%. Attendance is divided into three classes on the basis of percentage attendance: good having more than 80% attendance, average having more than 60% but less than 80% attendance and poor having attendance below 60%. The overall academic performance of the student was calculated as average score of each student for marks obtained & attendance in previous semester. The academic performance of students were graded into three classes: good (having more than or equal to 70% score), average (having more than or equal to 55% but < 70% score) & poor (having more than or equal to 55% score) (13).The important part of the proforma contained systematic general health questionnaire for the assessment of health status of students. General health questionnaire (GHQ) (14,15,16) is a standardized self-report questionnaire used to screen for psychological distress and common mental disorders and has been widely used in primary care. Its main focus is psychological components of ill health. Data was collected through filling a pretested questioner by participants & successively analyzed to conclude results. **Statistical analysis:** Statistical analysis of data was performed by using Graph Pad Prism software. The p value was calculated for various correlations by using Fisher's exact test and two-tailed analysis. The P < 0.05 was considered statistically significant.

Results

The overall distribution of students considering different aspects about their mental health and academic performance is given in Table 1.

Homesickness was commonly found in majority of students; particularly those who were newly admitted to the course. The results showed that out of 373 students; 303 students had homesickness experience. About homesickness, 247 (66.21%) students experienced homesickness initially, 56 (15.01%) students were homesick at the time of survey, while 70 (18.76%) students never experienced homesickness. Students who had previous experience to stay in hostels do not experienced homesickness. The students tackle significant academic, psychological & existential stressors throughout their studies. In this study, 85 (22.78%) students had poor, 212 (56.83%) students had average & 76 (20.37%) students had good academic performance. It was observed that among 373 students, 152 (40.75%) students had poor mental health. When students were asked regarding whether

they were victimized by their instructor/ lecturer, it was found that 131 (35.12%) students were victimized by lecturer while remaining 242 (64.87%) students were not experienced such victimisation. It is believed that measures taken to relieve stress can help in improvement of mental health. We observed that 129 (34.58%) students had accommodation problem & 27 (7.23%) had relationship problems with friends, 42 (11.26%) students hesitated to discuss problems with parents, 58 (15.54%) students were admitted to the course unwillingly & only 5 (1.34%) students reported the presence of conflicts between parents. Regarding, socioeconomic status of the student; out of 373 students, 93 (24.93%), 173 (46.38%) & 107 (28.68%) students had poor, average & good socioeconomic status respectively.

Correlation between various parameters and academic performance of students: An attempt was made to investigate effect of various parameters on academic performance of students. The parameters involved in present study were homesickness experience, victimization by lecturer, accommodation facility related problems, relationship problems with friends, socioeconomic status, hesitation to discuss problems with parents, unwillingness to admission, conflict between parents & previous experience to hostel stay. In this study, 23 students from 303 homesick students had poor academics while others were either academically good or average. Only 32 (24.42%) students who were victimized by teacher were found to have poor academic performance. Out of 373 students, 129 students reported that they were facing problems regarding their accommodation specifically noisy & overcrowded environment of hostel. Out of these, only 30 students were found to be academically poor. The homesickness experience & 1relationship problem with friends has significant (P <0.0001) effect on academic performance of students. The victimization by lecturer (P = 0.0296), accommodation problem (P = 0.0209) & socioeconomic status (P = 0.0499) was found to be significant predictors of poor academic performance of the students (Figure 1).

Among 58 students who were admitted to course due to force of parents, only 34.28% students had poor academic record. Unwillingness to admission (P = 0.0014) & previous experience to hostel stay (P = 0.0501) had significantly affected academic performance. The results showed that hesitation to contact parents & conflict between parents are significant (P <0.0001) factors responsible for poor academic performance of students. Although, only 1.34% students reported the presence of conflicts

between parents, it has significantly (P <0.0001) effect on academic performance (Figure 2).

Correlation between various parameters and mental health of students: Present study was aimed to assess the effect of some parameters on mental health status of students. To address this issue, we included systematic general health questionnaire in the proforma filled by student. Homesickness experience, victimization by lecturer, relationship problem with friends & socioeconomic status had significant correlation (P<0.0001) with poor mental health of students. The accommodation problem also had significant (P=0.7467) effect on mental health. Home sickness is the common problem which is faced by majority of the student specifically when they were new to hostel or course to which they were admitted. The reason behind poor correlation may be the adjustment of the students to the environment in which they were admitted and possible delay in adjustment is obvious as it need some time to acclimatize in new environment. Total 56 students were found to have poor mental health from 303 homesick students. The prevalence of homesickness experience, victimization by lecturer, relationship problem with friends & accommodation problem with poor mental health was 15.01%, 32.70%, 5.36%, & 11.26% respectively (Figure 3).

The factors of critical importance in relation to mental health of the students were found to be conflict between parents, unwillingness to admission, hesitation to contact parents and poor academic performance (P < 0.0001). Prevalence for conflict between parents and poor mental health was 100%. Mental health of student having hesitation to contact parents was found to be poor with 83.33% prevalence. The 12.60% students were found with poor mental health & poor academic performance (Figure 4).

Discussion

Social exclusion is constructed by different combinations of socioeconomic and political processes. It enables people to engage with services and have a fundamental sense of caring. Social exclusion and homelessness operate in parallel, as a homeless person is unable to maintain adequate accommodation, employment and social network (6).

Homesickness is a complex syndrome in which preoccupation with the home and past are associated with distress. Studies have consistently reported that a large proportion of male and female students experienced homesickness in at least first few months of their academic career (17). Homesick individuals are

generally in constant contact with home, anxious to social situations which leads to poor decision making & withdrawal from otherwise enjoyable activities (18). In present study, majority of students who reported homesickness were studying in first or second year of the course. Some students reported that initially they were homesick whereas others never experienced homesickness. Homesickness at initial phase is normal phenomenon as it need time to adjust with new conditions of accommodation & academics (19). Students are coping over this situation as they acclimatized and familiar with the new environment thus their mental health become normal and academic performance is not hampered. It has been noticed that the previous stay in the hostel helped the students to comfortably stay in the hostel & cope up with problems more easily.

Study stress was found to be the most important independent risk factor of mental health problems. Because stress may influence academic performance and well-being, it has been identified as an important psychosocial factor in the educational process. Therefore, coping with study stress should be looked as a challenge for students during their academic studies (20). In present study, significant correlation was observed between studies related stressors & academic performance. Majority of the students with stress had poor academic performance. Thus, academic stress including expectations of new tutor & novel study environment are most important factor responsible for poor academic performance of the students. Students can take measures like physical activity, aromatherapy, express of feelings, setting goals, etc. to relive study related stress (21).

The college student, especially newcomers experiences both developmental issue and college related stress. For most of the students, entry into college for first time is also challenge of experiences. New students tend to apply their family and cultural values in new setting, which may lead to misunderstanding among the peers, staff and faculty members (22). In academic life of students, person in most contact is lecturer or instructor. Knowledge given by lecturer, style of teaching, way of answering queries etc. is very important and it directly affects mental health and academic performance of the students. The present study revealed that students who were victimized by lecturers were found to be under stress. Although few students were victimized by lecturers but had poor academic performance.

Personal health depends partially on the social structure of life. The maintenance of strong social relationships is linked to good health conditions,

longevity, productivity and positive attitude. It was found that significant correlation exists between these two parameters. The students who had not good relationship with their friends, classmates & colleagues were experiencing stress and had poor mental health as well as academic performance. Thus, healthy relationships with others are a key factor for mental wellbeing and better academics.

Few students reported that conflicts are present between their parents. Though the prevalence is rare; all the students with this problem were found to be under stress and having poor academic performance. Thus, it can be concluded that if problems are present between parents then it should not exposed at least in presence of children which can adversely affect heath and performance. The students having poor socioeconomic status were found to be under stress while it was not usual that those students from poor socioeconomic status had poor academics. The reason behind stress may be related to the compromises due to poor finance. Significant correlation observed between socioeconomic status & poor academic performance of students. Some students with poor socioeconomic status had good academic performance. It implies that such students may had more sense of responsibility, awareness regarding family conditions and therefore more serious about their studies. Thus, we can conclude that besides stress due to poor economic background students can perform well in their academics. There is no barrier of economy for academic excellence. In joint family, each child has multiple role models and the supervision and training of children is shared by all family members. The role of children is to bring honor to their families by exhibiting good behaviour, high achievement and contributing to the well-being of the family.

The students who were not able to contact their parents directly or who were not free to discuss their problems freely with parents are found to have poor mental health. Most probable barrier for this hesitation may be the unnecessary strictness, dominance & more expectations from children. This lead to formation of conflicts and relationship become complex rather than gracious. Some parents are forcing their children for completing the professional courses. Due to compulsion by the parents some students are admitted to the courses unwillingly which results in stress and withdrawal of admissions, dropouts by the students and moreover suicidal attempts. Instead, stress was experienced initially by the students due to their unwillingness; once they adjust with their new friends, hostels and academics they can acclimatized to the course without any compromise in academic performance.

Conclusion

Academic related stress and conflict between parents were found to be major factors responsible for poor mental health & academic performance of students. The other associated factors were victimization by tutors, relationship problems with friends, classmates & colleagues, and hesitation to discuss personal problems with parents. The students are pillars of future development and are important asset for any nation. The poor mental health of youth can lead to decreased academic performance.

Recommendation

Further attention need to address this issue and measures should be taken by institutes and universities to manage problems related with mental health of students.

Authors Contribution

Designed the study, helped analyze the data, prepared & corrected the manuscript: KRP. Collected data & executed the study: AOZ, RBW, TDY. Analyzed the data: MBG.

Acknowledgement

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Tables

TABLE NO. 1 THE DISTRIBUTION OF STUDENTS ACCORDING TO VARIOUS PARAMETER

Parameter	Outcome	Frequency/ Number	Correlation with poor academic performance		Correlation with poor mental health	
			No of students	P value	No of students	P value
Homesickness experience	Yes No	303 70	23	P < 0.0001	56	P < 0.0001
Victimization by lecturer	Yes No	131 242	32	P = 0.0296	122	P < 0.0001
Accommodation problem	Yes No	129 244	30	P = 0.0209	42	P = 0.7467
Relationship problem with friends	Yes No	27 346	20	P < 0.0001	20	P < 0.0001
Socioeconomic status	Poor/low Average Good	93 173 107	33	P = 0.0499	53	P < 0.0001
Hesitation to contact parents	Yes No	42 331	20	P < 0.0001	35	P < 0.0001
Unwillingness to admission	Yes No	58 315	20	P = 0.0014	25	P < 0.0001
Conflict between parents	Yes No	5 368	5	P < 0.0001	5	P < 0.0001
Previous experience to hostel stay	Yes No	62 311	17	P = 0.0501	21	P = 0.0027
Poor academic performance	Yes No	85 288	-	-	47	P < 0.0001
Poor mental health	Yes No	152 221	69	P = 0.3317	-	-

Figures

FIGURE NO. 1 CORRELATION BETWEEN VARIOUS PARAMETERS AND POOR ACADEMIC PERFORMANCE OF STUDENTS
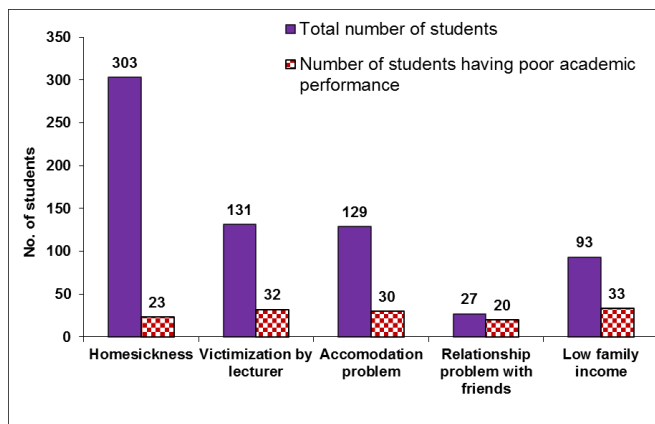

FIGURE NO. 2 EFFECT OF SOME PARAMETERS ON ACADEMIC PERFORMANCE OF STUDENTS
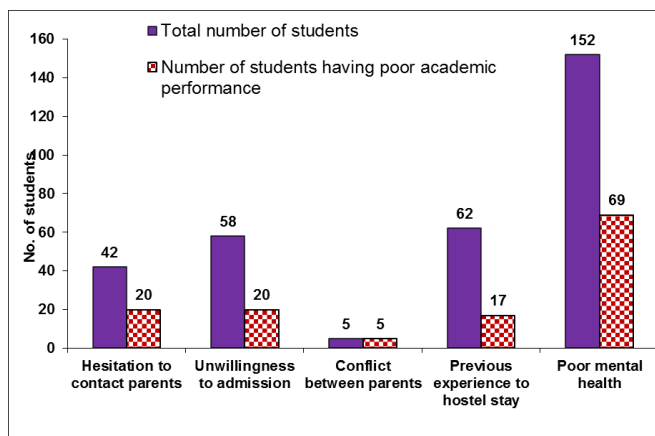

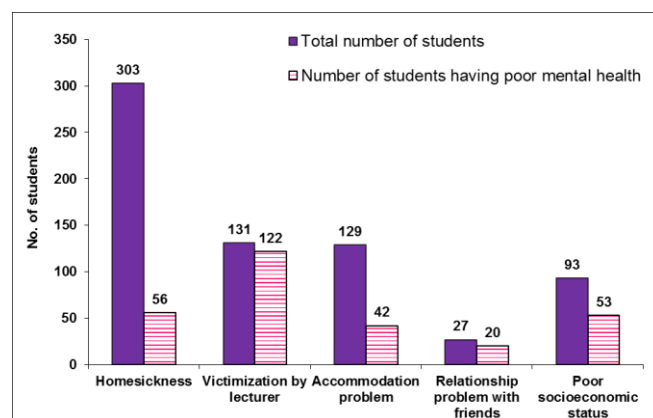### FIGURE NO. 3 CORRELATION BETWEEN VARIOUS PARAMETERS AND POOR MENTAL HEALTH OF STUDENTS

FIGURE NO. 4 EFFECT OF SOME PARAMETERS ON MENTAL HEALTH OF STUDENTS