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ORIGINAL ARTICLE

RELATIONSHIP OF LEARNED HELPLESSNESS AND SOCIAL INTEGRATION WITH PSYCHOLOGICAL DISTRESS IN MEDICAL STUDENTS

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ABSTRACT

OBJECTIVE: To explore the relationship of learned helplessness with psychological distress and relationship of social integration with psychological distress in medical students.

METHODS: This quantitative correlational survey research was conducted from September 2019 till January 2020, on 315 medical students, aging between 18-24 years, recruited from private and public medical colleges from Karachi, Pakistan. Data was collected through purposive sampling technique from students of all five medical years. To measure the variables, Learned Helplessness Scale, Social Inclusion Scale and Depression, Anxiety and Stress Scale were used. The institutes were visited as a part of survey-based methodology for this research.

RESULTS: Out of 315 medical students, 223 (70.8%) were females and 92 (29.2%) were males. Mean age of students was 21.33±2.19 years and mean time spent by participants in university was 7.49±2.06 hours. Majority (n=272/315; 86.3%) were single. About 41.6% (n=131/315) completed three years of medical education. Majority (n=250/ 315; 79.4%) lived with their parents and 303 (96%) student's parents could afford their medical education. Twenty-seven (8.6%) students consulted psychiatrist/psychologist at least once and 33 (10.5%) students had family history of psychological illness. Thirty-six (11.4%) students had other health-related problems. Outcomes depicts a weak positive correlation between learned helplessness and psychological distress ($r = 0.218$, $p<0.01$) and a weak negative correlation between social integration and psychological distress ($r = -0.272$, $p<0.01$).

CONCLUSION: Medical students who had more robust social networks had a reduced chance of psychological distress than their counterparts who had weaker ties.

KEYWORDS: Helplessness, Learned (MeSH); Social Integration (MeSH); Students, Medical (MeSH); Psychological Distress (MeSH); Social Support (MeSH); Social Isolation (MeSH).

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INTRODUCTION

University students generally have a lot of stressors in life, like failure in academics, relationships, financial, sports and personal problems. Medical students have high prevalence of anxiety and depression (70%).[1] Another research investigated the impact of medical education on psychological health of students and found the prevalence of unfavorable stress, depression and anxiety after the onset of medical training.[2] The study conducted by Shaikh BT and colleagues revealed that significant amount of stress is prevalent among medical students in Pakistan.[3] Student's persistent failure, may make them more passive in nature lapsing into utter helplessness which affects their mental health. This helplessness in recurrent times is more likely to be learned. This belief prevents the students to cope with the situation even when they can.[4] Learned helplessness is an uncomfortable form of cycle in students; those who think they are unable to succeed are unlikely to put much effort into it, which leads to even a reduced amount of success and lack of motivation and efforts.[5]

The learned helplessness may lead them to experience psychological distress in life such as depression, anxiety, stress.[6] Several findings support the framework of learned helplessness and depression.[7] Concisely, learned helplessness can lead to anxiety, distress and hopelessness.[8] Subsequently, it is observed that some students are more socially isolated, and they do not find help in these scenarios and evaluate themselves more negatively which eventually affects their mental health.

Social integration in this research targets a student's sense of belongingness within their community. One of the studies indicated that in medical students' high levels of academic stressor are due to low social support.[9] It is showed that low social support has found as predominant among psychologically distressed students therefore students become more distant from society.[10,11] Also, if individuals experience social rejection this can increase various types of negative emotions and high level or distress.[12]

In a recent survey, the rate of suicidal ideation among Pakistani medical students was reported to be 35.6%.[13] Comparing the data from Pakistan to those from China and the United States reveals that a greater proportion of Pakistani medical students experienced these views. The prevalence of anxiety, sadness, and psychological discomfort is greater among medical students, which worsens at the start of medical school and increases as the academic year's progress.[14] This conviction derived the researchers to find additional characteristics related with psychological distress among medical students in Pakistan and hence, the study aims to examine the relationship of learned helplessness and social integration with psychological distress in medical students.

While there are several studies on learned helplessness and psychological well-being or by linking social integration to psychological distress separately, the review of related literature revealed that these constructs were not studied together. The determination of relationship of these variables would help to identify any specific need of medical students. The results are assumed to be important for both research and counselling practice as obtained knowledge may be incorporated in making effective strategies for the students and help mental health practitioners to have a better understanding of more recent student life's problems, which ultimately, helps in reducing the rate of psychological distress among these students. The objectives of the current study were to assess the association of learned helplessness on psychological distress and to find out the association and contribution of social integration on psychological distress in medical students.

METHODS

This study was conducted from September 2019 till January 2020. Research was designed as Quantitative Correlational survey. The targeted population was undergraduate medical students from different private and public sector medical universities of Karachi, Pakistan.

Inclusion Criteria: All students enrolled in MBBS program, who provided informed consent and solved questionnaires, were able to take part in this research. Students who had been a part of medical studies for at least two months and belonged to Pakistan were eligible to be included in the study.

Exclusion Criteria: Participants who were previously diagnosed with a psychological illness were omitted.

Total of 315 medical students of both genders and all socioeconomic classes, from all 5 years of MBBS classes, ranging in age from 18-24 years were selected through purposive sampling technique.

Research was conducted after the permission of authors of scale and higher authorities of Institute of Professional Psychology, Bahria University Karachi Campus (IPP-BUKC). The study targets undergraduate medical students belonging to private and government universities. Several private and government medical universities of Karachi were visited, and authorities were briefed about the research purpose to obtain permission. Survey forms were distributed among students only after the permission from university management. During the collection of the survey forms, any questions from students were answered and thanked for participation in the research.

According to American Psychological Association (APA) ethical code, the consent of the authors to use their scale was obtained. Informed consent was obtained from the participants which briefed them about their right of privacy and right to withdraw from research at any time without any consequences. Participants were assured that their demographic details including name, age, name of university and other relevant information would be kept anonymous and would only be used for research purposes.

Three scales were administered on participants. Learned helplessness was measured through Learned Helplessness Scale.[15] This measure consists of 20 items rated on 4-point Likert-type scale ranging from 1 to 4 where: 1 represented "strongly disagree" and 4 being "strongly agree". The value of Cronbach's alpha for this scale was .77 indicating good internal consistency.

Psychological distress was measured by using DASS-21.[16] This self-report tool consisted of 21 items (7 per scale) which assessed three constructs including, depression, anxiety, and stress. The depression scale of DASS focuses on dysphoria, hopelessness, devaluation of life, self-deprecation, and lack of involvement, anhedonia and intertie. Anxiety scale measures autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. However, stress scale measures difficulty relaxing, nervous arousal, and being easily upset, over-reactive and impatient. All items have response set of 4-point Likert scale on which respondent mark their responses ranging from 0 (Did not apply to me at all) to 3 (Applied to me very much or most of the time). Mean was taken to calculate the scores of items in the scale. The Cronbach's values for depression, anxiety and stress were 0.82, 0.90 and 0.93.

Social integration was measured by using the Social Inclusion Scale.[17] The scale consists of 22 items and is divided into three subscales including, social isolation, social relations and social acceptance. Social isolation refers to the amount of contact an individual has with people. Social relations measure the relationship between people; and social acceptance refers to a person's sense of being accepted within their social context. Response set of this instrument is 4-point Likert scale in which respondent choose option between "Not at all", "Not particularly", "Yes a bit" and "Yes definitely" that describe respondent's relationship with people around over the last month. Items of the scales were computed using Mean. The Cronbach alpha value was 0.80.

Results were analyzed using the Statistical Package for Social Sciences (SPSS 21). Simple linear regression was performed to predict the role of Learned Helplessness and Social integration on Psychological Distress in Medical Students.

TABLE I: FREQUENCIES AND PERCENTAGES OF DEMOGRAPHIC VARIABLES OF MEDICAL STUDENTS (N=315)

Variable		Frequency	Percentage
Gender	Male	92	29.2
	Female	223	70.8
Monthly Income of father/ Guardian (Pakistani Rupees)	<30,000	63	20.0
	>30,000-60,000	15	4.8
	>60,000-90,000	22	7.0
	>90,000-150,000	25	7.9
	>150,000	40	12.7
Marital Status	Single	272	86.3
	In a relationship/ engaged	33	10.5
	Married	5	1.6
	Separated/divorced/ widowed	2	0.6
Year of Medical Education	1st Year	36	11.4
	2nd Year	66	21.0
	3rd Year	82	26.0
	4th Year	92	29.2
	5th Year	39	12.4
Residence Status	With Parents	250	79.4
	Hostel (single room)	8	2.5
	Hostel (shared room)	40	12.7
	With relative	12	3.8
	Private apartment	4	1.3
	Others	1	3
Parents Affordability	Yes	303	95.2
	No	8	2.5
Family History of Psychological Illness	Yes	33	10.5
	No	280	88.9
Psychiatrist/Psychologist Consultation	Yes	27	8.6
	No	285	90.5
Other Health related problems	Yes	36	11.4
	No	279	88.6

RESULTS

Total number of medical students were 315, 223 (70.8%) were females and 92 (29.2%) were males (Table 1). Mean age was 21.33±2.19 years. Mean number of hours that participants spent in their university were 7.49±2.06. Majority (n=272/315; 86.3%) were single. About 41.6% (n=131/315) completed three years of medical education.

Majority (n=250/ 315; 79.4%) lived with their parents, 40 (12.7%) were living in a shared hostel room, 8 (2.5%) were living in single hostel room and 12 (3.8%) students were living with their relatives in Karachi. Three hundred and three (96%) student's parents could afford their medical education. Twenty-seven (8.6%) consulted psychiatrist/psychologist at least once and 33 (10.5%) had family history of psychological illness. Thirty-six (11.4%) students had other health related problems.

Table II displays the Alpha reliabilities of the Learned Helplessness (LH), Social Integration (SI), and Psychological Distress (PD) Scales which are .61, .81 and .92 respectively. The Cronbach alpha reliabilities for the subscales of social integration were social inclusion (.68), social Relations (.57), and social acceptance (.78). As for the subscales of Psychological Distress, alpha reliabilities were as follows: Depression (.86), Anxiety (.75) and stress (.82).

Table III shows that there is a weak positive correlation between Learned Helplessness and Psychological distress (.218**) whereas there is a weak negative correlation between Social Integration and Psychological distress (-0.272).

Table IV reveals that model fits with the R value of .305 for both learned helplessness and social integration which means that they both contribute 30% in the psychological distress of medical students with variation of .145 and -.225, respectively. In addition, it also depicts with significant results that with the increase in Learned Helplessness, Psychological Distress will also increase and when social integration increases, there will be a decline in psychological distress.

DISCUSSION

Medical students experience higher level of stress as compared to the students of other academic disciplines and in general population.[18] Excessive stress can impair student's physical and mental health. Most of the authorities in medical colleges believes in competitive system of education instead of cooperation and team building among medical students which negatively affects them.[19] plenty of literature has been contributed to the understanding of the prevalence and sources of psychological distress among medical students.

This research is set to investigate the impact of learned helplessness and social integration on psychological distress among medical students. It has been noticed that medical students are more vulnerable towards depression, stress and anxiety because of their consistent exposure with patients having severe illnesses, patient's sufferings and cultural differences, moreover, they involved in dissection of corpses.[20]

The results of this study showed that there is a significant relationship between learned helplessness and psychological distress, however a weak positive relation (p=.218*). This finding might be due to the reason that medical students are susceptible to numerous factors in their academic years which includes academic workload, hectic schedules, long classes, clinical rotations, lack of sleep, personal trauma, family and patient's sufferings,

TABLE II: DESCRIPTIVE STATISTICS AND ALPHA RELIABILITY COEFFICIENTS, UNIVARIATE NORMALITY OF STUDY VARIABLES (N=315)

Variable	Items	Means	SD	SK	K	Ranges	
						Actual	Potential
LH	20	46.174	6.123	-0.412	3.677	20-78	20-80
SI	16	44.352	7.994	-0.428	0.524	18-64	16-64
SI	04	12.688	2.774	-0.829	-0.017	04-16	04-16
SR	09	21.781	4.645	0.310	0.340	09-36	09-36
SA	05	16.184	3.575	-0.993	0.392	05-20	05-20
PD	21	19.041	12.398	0.769	0.130	0-62	0-63
D	07	6.164	4.916	0.941	0.291	0-21	0-21
A	07	5.457	4.069	0.917	0.776	0-20	0-21
S	07	7.260	4.742	0.636	-0.180	0-21	0-21

LH= Learned Helplessness, SI= Social Integration, SI= Social Inclusion, SR= Social Relations, SA= Social Acceptance, PD= Psychological Distress, D= Depression, A= Anxiety, S= Stress.

TABLE III: CORRELATIONAL ANALYSIS BETWEEN LEARNED HELPLESSNESS, SOCIAL INTEGRATION AND PSYCHOLOGICAL DISTRESS

	LH	SI	PD
LH	1	-0.324**	0.218**
SI		1	-0.272**
PD			1

LH= Learned Helplessness, SI= Social Integration, PD= Psychological Distress. (**p<0.01)(*p<0.05)

TABLE IV: SIMPLE LINEAR REGRESSION SHOWING PREDICTING ROLE OF LEARNED HELPLESSNESS, SOCIAL INTEGRATION AND PSYCHOLOGICAL DISTRESS

Criterion	β	Sig	R	R^2	ΔR^2	95% CI	
						LL	UL
Learned Helplessness	0.145	0.012	0.305	0.093	0.093	0.071	0.562
Social Integration	-0.225	0.000	0.305	0.093	0.093	-0.503	-0.169

LH= Learned Helplessness, SI= Social Integration. *p<0.01

and parental pressure could also be one of the factors contributing to psychological distress among medical students which could possibly lead them to feel that they have no control over the situation and nobody can lessen the pain and discomfort. This universal learned helplessness leads to a state of psychological distress, specifically depression and stress. This result is also supported by add name[21] who found people, who feel universally helpless will have a tendency to find external reasons for their problems, therefore, socially disintegrate themselves and feel the lack of ability to solve their problems. Hence, leads to psychological distress.

The research also centrals the current study to negative relationship between social integration and psychological distress (p=-0.272*). Medical students, who believe that others could find a solution to their problems are likely to seek help from their social surroundings. Therefore, we can presume that students who had greater levels of social integration were correlated with fewer symptoms of psychological distress probably because relationship with others increase the chances for social support during times of difficulty. Social contact with friends has been found to be beneficial for mental health.[22] For the generalizability of the results, simple linear regression was also observed. Moreover, the carried out correlational analysis, also suggests a significant difference between the subscales of social integration i.e., social relations, social acceptance and social isolation and depression, stress and anxiety, the major contributing factors to psychological distress.

Current research findings should be interpreted considering its limitations. Scope of this research was to identify the relationship between learned helplessness, social integration and psychological research among medical students. However, most of the medical universities of Karachi didn't grant permission for the data collection in their premises, consequently collected data was majorly from public sector universities i.e., 70% of the data, due to this reason results of this research could not be generalized to private sector universities. Considering the fact that in this geographical region public and private sector universities have different standards for their students support i.e., extracurricular activities, counselling services for students, etc. which could be one of the factors that students both types of universities have different distress levels. Moreover, among 30% of the data from private sector universities, 23% of sample was from a university which has its own clinical setup of psychological services in the premises. Furthermore, sampling technique used in this research was convenient sampling which resulted in unequal data of males and females, final sample size of research could be large and equal, based on year of education, gender and universities, which could have provided more accurate findings. During the data collection process, examination timetable of the students was not considered which can also impact the level of stress students feel at that time. It is possible that some of the participants had exam in near future or some of them just had their exams, these two conditions could have different impact on the stress levels of students.

In future research, it is recommended that greater sample size could provide more accurate findings, as larger data provides greater number of analyses and decrease the risk of error. In addition, most of the data were collected from medical universities of Karachi city, so it would be beneficial to expand such studies beyond the area and include other medical universities of the Pakistan to acquire more diverse data for better generalizability. Also, upcoming research could focus on private and public universities separately in order to obtain further analysis on additional factors such as

socioeconomic status, parents' affordability etc. Forthcoming studies could use measures that assess key factors other than learned helplessness and social integration, to identify the reasons behind the distress in medical students. Other than this, our research did not find any significant association between student's residency, marital status, parent's monthly income, and parental status with depression, anxiety and stress. Therefore, this could be the area of interest for future researchers. Moreover, the current study emphasizes in finding the impact of learned helplessness on the level of psychological distress in medical students so another idea for further research is to come up with effective interventions to manage depression, anxiety and stress by working on researches that find the impact of learned helplessness on depression, anxiety and stress distinctly to help medical students in making a smooth transition through medical college and also to adjust with different learning environments during different phases of medical education.

The present study has important implications for medical student, as findings indicate that students who are more socially connected has lower levels of psychological distress, it demonstrates that students who are integrated with fellows and social groups are less likely developed psychological distress. Medical students with higher levels of campus connectedness may be protected from the adverse effects of stress and the development of depression and anxiety later. Our research has provided insight that lack of social integration can results in psychological distress. This awareness could be used to initiate interventions-based programs in medical universities to reduce the prevalence rates of depression, stress and anxiety in medical university students. Moreover, this study also suggest that learned helplessness in medical students can increase psychological distress. For this issue, psychological or counselling services can provide in premises of medical university. It would help psychologist/counsellors to work on institution-based strategies/interventions in reducing psychological distress in medical students. Moreover, they can guide medical students decreasing their learned helplessness and it will provide an insight to students that how low social integration leads to several problems. By doing so, psychologist/counsellors would help students to relief and reduce distress as well as increasing the psychological well-being.

CONCLUSION

It is evident from this research that there is a relation between learned helplessness and psychological distress i.e., higher the learned helplessness, higher would be the levels of psychological distress or vice versa, as suggested by current research's theoretical framework. This research and previous literature on the topic also suggest that social support can play a significant role in eliminating psychological distress of students. That is to say that, if medical students are encouraged in the earlier years of their education to integrate more into the society by taking part in curricular and extra curriculum, they will have a better psychological well-being and lesser stress levels in future. Besides, it is also important to note the certain impact of student's will to choose medical profession and their dissatisfaction on mental well-being.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

MN, MK, DM, & TR: Concept and study design, acquisition of data, drafting the manuscript, approval of the final version to be published.

RM & SS: Study design, analysis and interpretation of data, drafting the manuscript, critical review approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

CONFLICT OF INTEREST

Authors declared no conflict of interest

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DATA SHARING STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request

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