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Mental Health Distresses and Associated Risk Factors among Students at the Kenya Medical Training College, Nairobi Campus-Kenya

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Abstract

Mental Health Distress and Associated Risk Factors among Students at the Kenya Medical Training College, Nairobi Campus was investigated. 355 respondents were interviewed. Of the 335 participants, 183 (54.6%) fell within the normal range of depression while others had either mild, 143 (42.7%) or moderate, 9(2.7%) depression. Anxiety ranged from mild, 131 (39.1%, moderate, 93 (27.8%), severe, 4 (1.2%) and only 107 (31.9%) had anxiety within the normal range. No participant had stress within normal and severe ranges but participants mild stress levels constituted 333 (99.4%) followed by moderate, 2 (.6%). The risk factors included academic pressure, 95 (28.4%), depression, 77 (23.0%), peer pressure, 43 (12.8%), family problems, 32 (9.6%), financial pressure, 26 (7.8%), break ups, 25 (7.5%), 16 (4.8%) drug addiction, medical conditions, 9 (2.7%), and 7 (2.1%) were 'others. More females 136(73.1% than males had anxiety. Peer pressure 35 (81.4%) recorded the highest predictive variable on anxiety (p<.05. Gender was significantly associated with anxiety (p>.05) with further logistic regression indicating an adjusted odds ratio in the Exp(B) above 1.0 and confidence interval above 1.0, confirming that being female increases the odds of the outcome anxiety. The risk factors including academic, financial, family problems, depression, drug abuse, break ups, porn addiction, medical conditions and others increase the odds of anxiety among the participants. Tertiary level tailored measures therefore need to be put in place to help medical students at Kenya Medical Training College, Nairobi Campus to manage their mental health distresses which will help in improving health care delivery in Kenya.

Keywords: *Mental Health Distress, Risk Factors, Socio-demographic Factors.*

Introduction

Globally, approximately 450 million people have been documented to suffer from mental health and related disorders [1]. Depression has been documented as the leading cause of disability [2]. Depression (brain ill-health) presents in different ways including loss of enjoyment and interest, low energy, sleep disruptions and loss of appetite, low self-worth, feelings of guilt and lack of concentration [3]. Stress can become abnormal when it interrupts an individual's normal life [4]. Mental distress can be defined as any psychological anguish that presents in different forms including but not limited to loss of interest in certain activities like studies and manifests in other forms leading to avoidance tendencies, fatigue, helplessness, guilt, anger bursts, confusion and

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other aspects out of the ordinary [2, 5, 6]. It is mentally healthy to form a proper cognition and evaluation towards events and adopt a positive coping style in front of pressure [6].

Mental distress has negative effects on tertiary-level students and presents in different forms that include anxiety, depression, cognitive functioning impairment, and poor learning abilities [7, 8]. Subsequently, the existence of mental distress has been documented to increase the likelihood of developing other complicated mental health problems [9]. Several factors have been documented to be associated with mental distress among college-level students and they include major variables such as the female gender, loneliness, lack of close friends, lack of religious beliefs, an overload of college duties, exam-related stress and a lack of interest in the chosen field of study [8]. High levels of psychological stress and depression-related factors have been reported among medical students [9, 10]. The stress encountered by these medical training institutions often leads to adverse consequences, including diminished attention and learning concentration, negligence, poor body hygiene, self-medication and cheating during examinations [10, 11]. The medical curriculum has been reported as one of the most stressful academic curricula [9, 12]. The stress associated with the curricula, if not diagnosed and properly managed in a timely manner, can negatively affect both the physical and mental health of the students. Additionally, fear of examinations coupled with external pressure due to high parental expectations, peer influence, lack of leisure time, financial difficulties, toxic relationships and the saturated job market have been documented as some of the factors that contribute to depression among students in the medical colleges [9].

The growing number of college students presenting with mental health conditions is a global concern. According to the World Health Organization (WHO), slightly more than one-fifth of students in tertiary institutions met the minimum criteria for mental condition, but of these, only about 16.4% of the students meeting the criteria received treatment for the conditions [12-14]. Similar longitudinal studies documented a higher prevalence of mental health conditions of clinical significance manifesting in the different forms of depression (28%) and anxiety (33%). More still, the complexities in the learning methods and uncertainties imposed by the COVID-19 pandemic imposed additional mental health risk factors on students of higher learning [15].

There is limited data on mental distress prevalence in Kenya [16, 17]. Anecdotal medical data from the Kenya National Commission of Human Rights (KNCHR) indicates that 25% and 40% of outpatients and inpatients, respectively, undergo mental health distress [18]. According to the WHO report published in 2017, Kenya ranked 5th among the countries in Africa recording high cases of depression. The issues of mental health distress are on the rise in Kenya, with nearly one in every four persons presenting with a mental health distress condition [19]. Besides, according to the data from the World Population Review, Kenya ranks 114 out of the 175 countries with high rates of suicide at 6.5 per 100,000 persons [19, 20]. Among the factors associated with elevated mental health disorders in the country include depression, sexual and gender-based violence (SGBV), anxiety, substance abuse, the Human Immunodeficiency Virus (HIV) burden, cost of living including the COVID-19 menace that made the then president declare mental health a national disaster [20-22]. As a milestone, the Kenya Mental Health Policy (2015-2030) has provided a framework for mental health reforms in the country with the overall goal of ensuring that the citizens have access to comprehensive, high, and integrated mental health care [21, 22].

Despite being a pressing issue among the youth, who form most students in tertiary learning institutions in Kenya, including the

Medical Colleges, no studies have been conducted to establish the mental distress among the students at the KMTC in Nairobi campus. The demanding nature of the nursing students' academic programs, coupled with the stresses of urban life, has the likelihood of negatively affecting their mental health. Besides, the additional pressure posed by their study environment in hospital settings also presents an additional risk factor to their mental health. Understanding mental distress prevalence, severity, relationship with risky health behaviour, and the coping strategies employed by nursing students is critical for the betterment of their mental health and learning outcomes. Furthermore, an exploration of the relationship between mental distress and risky health behaviours can shed light on the broader societal and urban setting-related factors affecting these students' lives. This research, therefore, aims to provide valuable insights into the well-being of Kenya Medical Training College (MTC) students and provide the basis for informing interventions to enhance their overall college experience and future life prospects.

Methods and Materials Study Design, Setting, and Period

An institutional-based cross-sectional study was conducted at the medical training college, Nairobi Campus, Kenya, from August 15, 2024, to September 28, 2024. The Kenya Medical Training College, Nairobi campus, is situated directly opposite Kenyatta National Hospital. The campus hosts 41,000 students, all of whom are attending 76 medical courses. The university produces more than 12,000 graduates annually. This accounts for more than 85 per cent of the hospital's workforce.

Participants

The study was conducted among medical training college students in, Nairobi Campus, Kenya. Medical students who were academically active and present on the campus during the data collection period were included in the study whereas medical students who were severely ill and in difficulties responding to the questionnaires as well as those who declined to participate were excluded from the study.

Sample Size and Sampling Procedure

The sample size was determined by using a single population proportion by taking the prevalence of mental distress at 61.6%; with a 5% margin of error, 95% confidence, and assuming a 10% nonresponse rate [23], the final sample size was taken 355. The students were stratified based on their specific courses of study, which included, among others, clinical medicine, nursing, and pharmacy. Since data obtained from the University website indicated that the total number of medical students during data collection was more than 41,000 students, the proportional allocation of study subjects for each stratum was based on convenience sampling.

Study Variables

Mental distress was considered the dependent variable while the independent variables included socio-demographic factors such as age, sex, and religion and Risk Factors such as academic and peer pressure, drug abuse, depression, family problems, medical conditions, and porn addiction.

Data Collection Tool and Procedure

Data was collected using an English version of a self-administered questionnaire having six parts. The first part included the sociodemographic characteristics of participants. The second part assesses Depression, Anxiety and Stress. The standard English version of the 21-item Depression, Anxiety, and Stress Score (DASS-21) was used to identify participants with depressive, anxiety, and stress symptoms. Respondents were instructed to score from 0 (absence of symptoms) to 3 (symptom appeared most of the time) for each item. At the end of the questionnaire, scores were aggregated based on

the three domains that the item represented and multiplied by two. The cut-off points were set at ≥10 for depression, ≥8 for anxiety, and ≥15 for stress [24]. It was validated in this study, and the psychometric properties showed reliability coefficients of .71, .80 and .73 for depression, anxiety and stress, respectively, using a pilot study with 109 medical students.

Data Quality Control

For assurance of data quality, data collectors and supervisors were trained before the data collection exercise. Before the actual data was collected, the questionnaire was tested on 5% of the total sample size (15 individuals) among the University of Nairobi medical students. The collected data were checked for completeness, among other attributes, before the actual data coding and cleaning.

Data Processing and Analysis

Data was entered into Microsoft Excel and cleaned, coded, and analyzed using Statistical Packages for Social Sciences (SPSSv23). Then, the data was analyzed to generate descriptive statistics: frequency and percentages. Chi-square and Binary logistic regression were used to analyze the data. The variable was checked using bi-variable logistic regression to get variables that had an association with dependent variables, and then variables that had a *p*-value of less than 0.25 were entered into multivariable logistic regressions for further analysis. An adjusted odds ratio with 95% CI was computed for variables having a *p*-value less than 0.05 in the multivariable logistic regression model and considered as significantly associated with the dependent variable.

Results

Descriptive Presentation of Data

Table 1. Socio-demographic Presentation of Participants

Variable (S) (n=335)		**Frequency**	**Per cent %**
Course of Study	Nursing	61	18.2
	Pharmacy	30	9.0
	Clinical Medicine	41	12.2
	Health Records	46	13.7
	Medical Lab Tech	31	9.3
	Radiology	30	9.0
	Others	96	28.7
Time of Program	Day Program	333	99.4
	Weekend Program	2	.6
Age	Prefer not to say	3	.9
	14-24 years	299	89.3
	25-31 Years	32	9.6
	40 years and above	1	.3
Residence	Within College Hostels	280	83.6
	Away from the hostel	38	11.3
	Near private hostel	6	1.8
	Prefer not to say	11	3.3
Religion	Christianity	247	73.7
	Islam	43	12.8
	Others	45	13.4

Gender	Male	149	44.5
	Female	186	55.5

Source: Primary Data

Table 1 shows that 335 student respondents participated in this study with 61 (18.2%) from nursing, 46 (13.7%) from health records, 61(12.2%) from clinical medicine, 31 (9.3%) from medical laboratory technology, 30 (9.0%) for pharmacy and radiology respectively and 96 (28.7%) which constitute the majority falling into other medical courses in the university. The majority of the participants were for day programs (333, 99.0%) with only 2 (.6%) on weekend programs and 299 (89.3%) falling into 14-24 years with only 1 person who is higher than 40 years.

For the mode of residency, the majority of the students reside within the college hostels, 280 (83.6%), followed by those who stay away from the hostel, 38 (11.3%), 6 (1.8%) near private hostels and 11 (3.3%) who preferred not to respond. For religious affiliation, Christianity, 247 (73.7%), Islam, 43 (12.8%), and other religions, 45 (13.4%). Finally, males constituted 149 (44.5%) and females, 186 (55.5%).

Prevalence of Mental Health Distresses Among Participants

Table 2. Frequency and Percentages of Mental Health Distresses Levels (n=335)

	Frequency	**Percent (%)**
Depression		
Norma	183	54.6
Mild	143	42.7
Moderate	9	2.7
Anxiety		
Normal	107	31.9
Mild	131	39.1
Moderate	93	27.8
Severe	4	1.2
Stress		
Mild	333	99.4
Moderate	2	.6

Source: Primary Data

Table 2 showed that out of the 335 participants, 183 (54.6%) fall within the normal range of depression and others have either mild, 143 (42.7%) or moderate, 9(2.7%) depression with none showing symptoms of severe depression. The majority of the participants had anxiety ranging from mild, 131 (39.1%, moderate, 93 (27.8%), severe, 4 (1.2%) and only 107 (31.9%) had their anxiety within the normal range. For stress, none of the participants had within the normal range and severe range, but those with mild stress levels constitute 333 (99.4%) followed by moderate, 2 (.6%).

Table 3. Presentation of Risk Factors (n=335)

Variable	**Frequency**	**Per cent %**
Peer Pressure	43	12.8
Academic Pressure	95	28.4

Financial Pressure	26	7.8
Family Problems	32	9.6
Depression	77	23.0
Drug Abuse	16	4.8
Breakups	25	7.5
Porn Addiction	5	1.5
Medical Conditions	9	2.7
Others	7	2.1
Total	335	100.0

Source: Primary Data

Amongst the risk factors identified that makes the students vulnerable, the majority fall within the academic pressure, 95 (28.4%) as their risk factor followed by depression, 77 (23.0%), peer pressure, 43 (12.8%), family problems, 32 (9.6%), financial pressure, 26 (7.8%), break ups, 25 (7.5%), 16 (4.8%) drug addiction, medical conditions, 9 (2.7%), and 7 (2.1%) others.

Table 4. Likely Periods Students Experience Mental Distress

Response(s)	**Frequency**	**Per cent %**
Prefer not to say	9	2.7
Beginning of semester	71	21.2
All the time	101	30.1
During Exams	71	21.2
End of semester	28	8.4
Close to exams	16	4.8
Night	3	.9
After Exams	12	3.6
Yearly	3	.9
2-3 years	19	5.7
After receiving results	2	.6

Source: Primary Data

The participants who experienced mental distress who identified all the time were the majority, consisting of 101 (30.1%) followed by the beginning of the semester 71 (21.2%) with the least being after receiving results, 2 (6%).

Table 5. Unhealthy Habits by Students

a. When students here show signs of mental distress, what are some of the unhealthy habits or risky health behaviours that most of them indulge in?	**Frequency**	**Per cent %**
Drug abuse	295	88.1
Unhealthy Sex	7	2.1
Partying	11	3.3
Unnecessary fights	7	2.1
Useless sleep	1	.3

Missing classes	3	.9
Excessive Reading	3	.9
Confusion	2	.6
Prefer not to say	6	1.8
b. Do they do this consciously or subconsciously?		
Prefer not today	5	1.5
Yes	182	54.3
No	148	44.2

Source: Primary Data

The majority of the participants identified that students show signs of mental distress through the unhealthy habit or risky health behaviour of drug abuse, 295 (88.1%) followed by partying, 11 (3.3%), unhealthy sex and unnecessary fights, 7(2.1%), missing classes and excessive reading, 3(.9%), confusion, 2(.6%) and 6 (1.8%) preferred not to respond.

Table 6. Chi-Square of the Prevalence and Severity of Mental Distress of Depression among the Different Categories of Students at the Kenya Medical Training College, Nairobi Campus

		DEPRESSION				
		No	**Yes**	**X**	**Df**	**Sig.**
Gender	Male	83 (55.7%)	66 (44.3%)	.126[a]	1	.723
	Female	100 (53.8%)	86 (46.2%)			
Religion	Christianity	136 (55.1%)	111 (44.9%)	.072[a]	2	.965
	Islam	23 (53.5%)	20 (46.5%)			
	Others	24 (53.3)	21 (46.7%)			
Age	Prefer Not to say	2 (66.7%)	1 (33.3%)	1.371[a]	3	.712
	14-24 Years	161 (53.8%)	138 (46.2%)			
	25-31 Years	19 (59.4%)	13 (40.6%)			
	40 years and above	1 (100.0%)	0 (0.0%)			
Risk Factors	Peer Pressure	29 (67.4%)	14 (32.6%)	6.356[a]	9	.704
	Academic Pressure	52 (54.7%)	43 (45.3%)			
	Financial Pressure	15 (57.7%)	11 (42.3%)			
	Family Problems	14 (43.8%)	18 (56.3%)			
	Depression	38 (49.4%)	39 (50.6%)			
	Drug Abuse	8 (50.0%)	8 (50.0%)			
	Break Ups	14 (56.0%)	11 (44.0%)			
	Porn Addiction	3 (60.0%)	2 (40.0%)			
	Medical Conditions	5 (55.6%)	4 (44.4%)			
	Others	5 (71.4%)	2 (28.6%)			
Course of Study	Nursing	36 (59.0%)	25 (41.0%)	8.738[a]	6	.189
	Pharmacy	22 (73.3%)	8 (26.7%)			
	Clinical Medicine	23 (56.1%)	18 (43.9%)			
	Health Records	26 (56.5%)	20 (43.5%)			
	Medical Lab Tech	12 (38.7%)	19 (61.3%)			
	Radiology	15 (50.0%)	15 (50.0%)			
	Others	49 (51.0%)	47 (49.0%)			

Residence	Within College Hostels	152 (54.3%)	128 (45.7%)	1.580[a]	3	.664
	Away from the hostel	20 (52.6%)	18 (47.4%)			
	Near private hostel	3 (50.0%)	3 (50.0%)			
	Prefer not to say	8 (72.7%)	3 (27.3%)			

Table 6 shows that none of the predictor variables are significantly associated with the outcome variable (p>.05).

Table 7. Chi-Square of the Prevalence and Severity of Mental Distress of Anxiety among the Different Categories of Students at the Kenya Medical Training College, Nairobi Campus

		Anxiety				
		No	**Yes**	**X**	**DF**	**Sig.**
Gender	Male	57 (38.3%)	92 (61.7%)	4.923[a`]	1	.018
	Female	50 (26.9%)	136 (73.1%)			
Religion	Christianity	79 (32.0%)	168 (68.0%)	.022[a]	2	.989
	Islam	14 (32.6%)	29 (67.4%)			
	Others	14 (31.1%)	31 (68.9%)			
Age	Prefer not to say	0 (0.0%)	3 (100.0%)	2.775[a]	3	.428
	14-24 Years	99 (33.1%)	200 (66.9%)			
	25-31 Years	8 (25.0%)	24 (75.0%)			
	40 years and above	0 (0.0%)	1 (100.0%)			
Risk Factors	Peer Pressure	8 (18.6%)	35 (81.4%)	18.901[a]	9	.026
	Academic Pressure	30 (31.6%)	65 (68.4%)			
	Financial Pressure	8 (30.8%)	18 (69.2%)			
	Family Problems	11 (34.4%)	21 (65.6%)			
	Depression	21 (27.3%)	56 (72.7%)			
	Drug Abuse	6 (37.5%)	10 (62.5%)			
	Break Ups	13 (52.0%)	12 (48.0%)			
	Porn Addiction	1 (20.0%)	4 (80.0%)			
	Medical Conditions	3 (33.3%)	6 (66.7%)			
	Others	6 (85.7%)	1 (14.3%)			
Course of Study	Nursing	21 (34.4%)	40 (65.6%)	4.426[a]	6	.619
	Pharmacy	13 (43.3%)	17 (56.7%)			
	Clinical Medicine	14 (34.1%)	27 (65.9%)			
	Health Records	12 (26.1%)	34 (73.9%)			
	Medical Lab Tech	8 (25.8%)	23 (74.2%)			
	Radiology	7 (23.3%)	23 (76.7%)			
	Others	32 (33.3%)	64 (66.7%)			
Residence	Within College Hostels	94 (33.6%)	186 (66.4%)	4.273[a]	3	.233
	Away from the hostel	8 (21.1%)	30 (78.9%)			

	Near private hostel	3 (50.0%)	3 (50.0%)	
	Prefer not to say	2 (18.2%)	9 (81.8%)	

Source: Primary Data

Table 7 showed that gender and risk factors from the predictor variables are significantly associated with the outcome variable of anxiety ($p<.05$). There were more females with anxiety compared to males, 136 (73.1%), and risk factors had peer pressure 35 (81.4%) being the highest predictive variable on anxiety among the participants.

Table 8. Chi-Square of the Prevalence and Severity of Mental Distress of Stress among the Different Categories of Students at the Kenya Medical Training College, Nairobi Campus

		Stress				
		No	**Yes**	**X**	**Df**	**Sig.**
Gender	Male	149 (100.0%)	0 (0.0%)	1.612[a]	1	308
	Female	184 (98.9%)	2 (1.1%)			
Religion	Christianity	246 (99.6%)	1 (0.4%)	2.415[a]	2	.299
	Islam	43 (100.0%)	0 (0.0%)			
	Others	44 (97.8%)	1 (2.2%)			
Age	Prefer Not to say	3 (100.0%)	0 (0.0%)	242[a]	3	970
	14-24 Years	297 (99.3%)	2 (0.7%)			
	25-31 Years	32 (100.0%)	0 (0.0%)			
	40 years and above	1 (100.0%)	0 (0.0%)			
Risk Factors	Peer Pressure	43 (100.0%)	0 (0.0%)	6.243[a]	9	715
	Academic Pressure	94 (98.9%)	1 (1.1%)			
	Financial Pressure	25 (96.2%)	1 (3.8%)			
	Family Problems	32 (100.0%)	0 (0.0%)			
	Depression	77 (100.0%)	0 (0.0%)			
	Drug Abuse	16 (100.0%)	0 (0.0%)			
	Break Ups	25 (100.0%)	0 (0.0%)			
	Porn Addiction	5 (100.0%)	0 (0.0%)			
	Medical Conditions	9 (100.0%)	0 (0.0%)			
	Others	7 (100.0%)	0 (0.0%)			
Course of Study	Nursing	59 (96.7%)	2 (3.3%)	242[a]	3	970
	Pharmacy	30 (100.0%)	0 (0.0%)			
	Clinical Medicine	41 (100.0%)	0 (0.0%)			
	Health Records	46 (100.0%)	0 (0.0%)			
	Medical Lab Tech	31 (100.0%)	0 (0.0%)			
	Radiology	30 (100.0%)	0 (0.0%)			
	Others	96 (100.0%)	0 (0.0%)			
Residence	Within College Hostels	280 (100.0%)	0 (0.0%)	15.725[a]	3	001
	Away from the hostel	36 (94.7%)	2 (5.3%)			
	Near private hostel	6 (100.0%)	0 (0.0%)			
	Prefer not to say	11 (100.0%)	0 (0.0%)			

Source: Primary Data

Table 11 showed that none of the predictor variables are significantly associated with the outcome variable of stress (p>.05) apart from residents (p<.05) who stay away from the hostel having more stress compared to others.

Logistic Regression for Hypotheses

Table 9. Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	408.171[a]	.034	.047

Source: Primary Data

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

The .047 in the Omnibus Test of Model Coefficients is less than .05, which means the model is significant for further interpretation.

Table 10. Hosmer-Lemeshow Test

Step	Chi-square	df	Sig.
1	9.415	7	.224

Source: Primary Data

Since the p-value is greater than .05 in the Hosmer and Lemeshow Test table, it means the model is fit for the data to be further interpreted.

Table 11. Association of Gender and Risk Factors on Mental Distress

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	Gender	.494	.239	4.273	1	.039	1.638	1.026-	2.616
	Risk factors	-.133	.052	6.563	1	.010	.875	.791-	.969
	Constant	1.019	.274	13.839	1	.000	2.772		

Source: Primary Data

a. Variable(s) entered on step 1: Gender, Risk Factors.

Since the adjusted odds ratio in the Exp(B) is above 1.0 and the confidence interval is entirely above 1.0, it means being a female (as a predictor of gender) increases the odds of the outcome (anxiety). Also for the risk factors, since the adjusted odds ratio in the Exp(B) is above 1.0 and also the confidence interval is entirely above 1.0, it means being exposed to the risk factors of academic, and financial pressures as well as family problems, depression, drug abuse, break ups, porn addiction, medical conditions and others (as a predictor) increases the odds of the outcome (anxiety) among the participants.

Discussion

The study investigated the prevalence of mental health distress among medical students at the Kenya Medical Training College, Nairobi Campus, which covers areas of mental distress such as depression, anxiety and stress. The findings showed that medical school is in fact, a high-pressure and overwhelming environment with the prevalence of ranging from mild, 143 (42.7%) to moderate, 9(2.7%) depression and the majority of the participants had anxiety ranging from mild, 131 (39.1%,

moderate, 93 (27.8%), severe, 4 (1.2%) and with stress levels of mild 333 (99.4%) followed by moderate, 2 (.6%). The current study revealed that the prevalence of mental distress is 45.4% for depression, 68.1% for anxiety and 100.0% for stress which confirms the increasing prevalence of mental health distress among Medical Students not only in Kenya but across the world [25-28].

The increasing prevalence of mental distress among medical students is a concerning issue that has garnered significant attention in recent years.

A systematic review of 54 studies found that 27.2% of medical students experienced depression, 33.5% experienced anxiety, and 11.1% experienced suicidal ideation [29], and another study found 4,897 medical students from 49 medical schools in the United States alone reporting that 63.4% experienced burnout, 42.3% experienced depression, and 11.3% experienced suicidal ideation[30], the findings of the prevalence of mental distress among Kenyan Medical students corroborate other literature of the increasing trends in mental distress.

Several risk factors were found that predispose medical students to develop varying mental distress including academic pressure, depression, peer pressure, family problems, financial pressure, break ups, drug addiction, medical conditions, and other factors. This is consistent with the findings of other researchers who found that academic pressure is a risk factor for stress, lack of family support and isolation [30], exposure to traumatic events and patient suffering [28], stigma and fear of seeking help [31, 32]. The major findings of the risk factors in this study are both internally and externally generated from the environment, most especially around the pressure that is heaped on students to meet up with their curriculum as well as certain expectations for medical students compared to other students [33]. Academic pressure is the top factor that serves as a risk factor in the study, which, not surprisingly, is followed by depression and several others that weaken the student's ability to cope with eventual mental breakdown that affects the students generally, including high-quality healthcare delivery expected of them.

Since academic pressure is the leading risk factor for mental distress as found in this study, the universities urgently need to address academic workload, expectations, and support systems for medical students which will have a ripple effect on the general well-being of the students concerning their mental health. The importance of mental health screenings and counselling services cannot be overemphasized due to the identification of depression in this study as a risk factor. This will help in the early identification of the problem and possible solutions are met. Also. Peer pressure plays a substantial role in mental distress, highlighting the need for healthy social connections and support networks which can be encouraged through peer support networks.

Conclusion

The study on the prevalence of mental health distress and associated factors among students at the Kenya Medical Training College, Nairobi Campus, reveals alarming rates of mental health issues. Key findings include the high prevalence of mental health distress with risk factors including academic pressure, depression, peer pressure, family problems, financial pressure, break-ups, drug addiction, and medical conditions. Also, being a female student was found to make the students more vulnerable to developing mental distress. The findings call for an urgent need for institutional support and interventions that will address academic and socioeconomic factors as well as the need for mental health education, awareness, and stigma reduction. Learning environments are expected to be conducive in such a way that students can cope and thrive in their training to become healthcare professionals who will help meet the health needs of Kenyans, Africa, and the world at

large. That can only be made possible when the students can manage the daily stresses that come from the pressure of medical school. As the saying goes, there is no health without mental health. As such, there is a need to prioritize the health of healthcare providers in training who will contribute to the growth of the nation. Mental health is a critical aspect of overall well-being. Addressing mental health distress among students is essential for their academic success, personal growth, and future professional endeavours.

Recommendation

Based on the outcome of this study, some recommendations to address mental health distress among students at the Kenya Medical Training College, Nairobi Campus were made as follows:

1. Medical tertiary learning should ensure that mental health units or counselling centres are established on campus to help in the early identification and intervention of mental health distress among medical students. This will also assist in the development and implementation of stress management programs and provide mental health education and awareness campaigns in the school environments.
2. A review and adjustment of academic workload and expectations should be made where flexible academic scheduling for students is made possible.
3. There is an urgent need for peer support groups and mentorship programs to assist students in building resilience.
4. Access to Financial aid and scholarship opportunities.

Ethical Approvals and Consent

Ethical approval was obtained from the Texila American University Ethics and Review Committee (ERC). Participants gave written informed consent before answering the questionnaires. All methods, including participant recruitment and consent taking, data collection, data handling, and analysis, were performed according to relevant guidelines and regulations.

Availability of Data and Materials

The datasets generated and/or analyzed during the current study are not publicly available because no permission has been obtained from participants and the hospital/university (where the study was conducted) to publish datasets publicly. The authors also intend to further explore the data to generate more insights/findings and publish those new insights/findings. The data are available from the corresponding author on reasonable request.

Competing Interests

The authors declare that they have no competing interests.

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