Original research

Effect of national crisis on mental health and academic performance of pharmacy students at Attahadi University

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Abstract: Among the consequences of armed conflict, the effect on the mental health of the civilian population is one of the most significant aspect of psychiatric disorders. Studies of the general population show a positive increase in the incidence and prevalence of mental disorders. This study is aimed to determine the relationship of the national crisis on the mental health conditions of university students and their academic performance. Specifically, this study was aimed to evaluate the national crisis effects on the mental health and the academic performance as well as the association of the national crisis, mental health and academic performance. 40 sample size of pharmacy students at the academic year 2019-2020 at Attahadi University, Tripoli, Libya were used in this study and a survey of validated questionare for mental health was considered. The findings revealed that the effects of national crisis on the mental health of the students disclosed the verbal interpretation of rarely grade. Indeed it can be found that mental health of the students was not of greatly affected in this sample. The academic performance of the students disclosed that academic year levels one and three have verbal interpretation of good and academic year level two has fair. Though the academic performance of the students did not show a verbal interpretation of weak or very weak. It is still worthwhile to note that none of them has reached the very good and the excellent performance. It can be concluded that a need for the students coping strategies be enhanced for them to reach their maximum potential with their academic performance. This study shows also that a weak positive relationship among the variables. Though it's not that high, indeed, the mental health of the students can be a predictor to their academic performance.

Introduction

In general, among the consequence of war, the negative impact it had on mental health of people of society has been catastrophic. War destroys usually communities and families and lives. It leads to widespread human suffering and population displacement. It often disrupts the development of

the social and economic fabric of nations. It disturbs and interrupts people's ability to live in peace and harmony. It corrupts nations and ruins generations and effects the youth especially on a large scale studies have shown that conflict situations cause more mortality and disability. Studies of the general population show a definite increase in the incidence and prevalence of mental disorders [1]. The effects of war include long-term physical and psychological harm to children and adults, as well as reduction in material and human capital. Death as a result of wars is simply the tip of the iceberg. Other consequences, besides death, are not well documented. They include endemic poverty, malnutrition, disability, economic/social decline and psycho-social illness, to mention only a few [2]. It becomes very difficult for children to grow up normally in an environment filled with fear and death and hopelessness and still manage to find a way to live their lives to its full potential. When the different governments and cities of Libya fight each other to death for power and money and status, the balance of peace and well-being will be disrupted and although the situation in Libya has extremely been difficult to live with and to handle, the youth of the society are still fighting through it all to have a good chance at education and to achieve their goal of being a part of the next generation that would build a better future for our country.

The impact of Libya's ten-year war on civilians is incalculable, a UN official has said, with rising casualties and nearly 900 000 people needing assistance. The impact of wars on the mental health of the civilian population is one of the most significant studies of the general population show a definite increase in the incidence and prevalence of mental disorders. Women are more affected than men. Other vulnerable groups are children, the elderly and the disabled. A prevalence rate is related with the degree of trauma and the availability of physical and emotional support. The use of cultural and a religious coping the strategies is frequent in developing countries [3]. In certain countries like Middle East and North Africa region (Syria, Yemen and Libya), the healthcare system is weak and sometimes very weak. For example, the first case of COVID-19 was reported on March 2020 in these countries. Thus, these countries are not prepared to confront the pandemic alone. In addition, ongoing conflict can hinder the efforts to fight the pandemic and may act as a catalyst for its spread; more serious consequences are expected [4]. However, the effects of armed conflict and COIVID-19 pandemic on mental health of adolescents is multifaceted on different life aspects such as mental health. The objective of this study, so, was to analyse these effects as a national crisis on mental health among university students with their academic performance in Libya.

Materials and methods

This study employed a descriptive correlational method of research. The respondents were the students of Attahadi University at Faculty of Pharmacy, Tripoli, Libya, with sample size of 40 students (age between 19 and 23 years, mostly female students). Out of the 59 of the total population, 40 students formed the respondents (67.8%, response rate). The study was performed during academic year 2019-2020. The investigators made use of triangulation in research where we employed combination of two sampling techniques.

The convenience or accidental sampling and purposive sampling to ensure validity of data for the academic performance. Those students present during the actual data collection were the one who formed the respondents of the study. The investigator made use of primary and secondary data and as a tool in collecting data. A questionnaire with the use of Likert scale measures the effect of the national crisis on the mental health of the students. The investigator also made use of the secondary data to measure the academic performance of the respondents. The general weighted average of the students for each year level was taken into an account to measure the second variable of the study. An ethical approval obtained from ethics committee of Attahadi University (2-2021), for conducting the survey and for data

collection. A direct permission from each student was also obtained by an oral and written agreements before starting the survey. After getting permission, the researchers proceed on the actual conduct of data collection by distributing questionnaires to the respondents and retrieving it on the same day. For the secondary data, a personal communication with registration office to seek perusal on the retrieval of grades. After the data was retrieved, it was statistically analysed and calculated by using Likert scale test and Spearman Pearson correlation test. A level of $p < 0.05$ was considered statistically significant.

Results

The present study included 40 healthy university students (age between 19 and 23 years) who participated voluntary and agreed to take part in this study (response rate was 67.8%). Since this is a new university regarding faculty of pharmacy, the sample size was small but all the registered students were involved (90%, female students). In **Table 1**, a detailed scrutiny of data reveals an overall mean of 3.83 which have a verbal interpretation of rarely level. All the 20 indicators of the survey were included as shown in **Table 1** for mental health of the participants, with different ranges of the means including never (4.1 - 5.0), rarely (3.1 - 4.0) and sometimes (2.1 - 3.0) verbal interpretations. In **Table 1**, no mostly or always interpretations were observed in this study (< 2.0). The overall mean of all the questions related to the mental health of the students is 3.83 which indicates that this level corresponds to rarely interpretation.

Table 1: Mean and verbal interpretation of the effects of national crisis on student mental health

Indicator	Mean	Verbal interpretation
1. I felt sad, unhappy or depressed.	2.85	Sometimes
2. I feel lethargic, apathetic or as if I have no energy.	2.70	Sometimes
3. I feel hopeless about the future.	4.22	Never
4. I feel lonely, isolated or alone.	3.92	Rarely
5. I have trouble sleeping.	3.07	Rarely
6. I sleep too much.	3.55	Rarely
7. I have no appetite.	4.12	Never
8. I overeat.	3.14	Rarely
9. I feel unproductive or get distracted easily at work.	3.57	Rarely
10. I have trouble focusing on projects, work or activities.	3.30	Rarely
11. Activities or work no longer interest me.	3.69	Rarely
12. I have trouble getting along with family, friends, co workers.	4.49	Never
13. I feel tense or nervous.	2.54	Sometimes
14. I feel agitated, angry or irritable.	2.77	Sometimes
15. I think about hurting myself.	4.55	Never
16. I consider suicide.	4.87	Never
17. I drink or do drugs to escape or dull the pain.	4.80	Never
18. I binge drinks (more than 5 drinks in 1 hour)	4.94	Never
19. People express concern about my drinking or drug use.	4.80	Never
20. I have had trouble at work/school due to alcohol or drugs.	4.80	Never
Overall	**3.83**	**Rarely**

In **Table 2**, with regard to first year students, the individual detailed scrutiny of the study reveals an overall mean of 68.9 which has a verbal interpretation of good grade. The grade levels of the study was based on 100 - 85.0 as excellent, 84.9 - 75.0 as very good, 74.9 - 65.0 as good, 64.9 - 50.0

as fair, 49.9 - 35.0 as weak and 34.9 -00.0 as very weak. However, the sample size of this group is low but all students were involved, and it reveals a preliminary good academic performance of the students at this university in the national crisis.

A detailed scrutiny of **Tables 3 and 4** reveal an overall mean of 63.76 for second year and third year students and an overall mean of 74.08 for third year students, respectively. The obtained means indicate fair and good verbal interpretation, respectively. However, with a small sample size in both groups but at least the findings indicate that the mental health condition related to the academic performance in this crisis.

In **Table 5**, a detailed analysis for correlation of the data regarding mental health and academic performance is shown. An analysis of the data revealed a weak relationship between the two variables of the study which indicates a non-significant positive correlation (r = 0.03).

Table 2: Verbal interpretation of the extent of first year student's academic performance

Indicator	Mean	Verbal interpretation
First year weighted average grade	68.9	Good

Table 3: Verbal interpretation of the extent of second year student's academic performance

Indicator	Mean	Verbal interpretation
Second year weighted average grade	**63.76**	Fair

Table 4: Verbal interpretation of the extent of third year student's academic performance

Indicator	Mean	Verbal interpretation
Third year weighted average grade	**74.08**	Good

Table 5: Correlation of national crisis on mental health of students and academic performance

Variables		Data
National crisis effects on the Mental health of students (X)	Pearson correlation level of significant n	0.03 0.26 **40**
Academic performance in major nursing subjects (Y)	Pearson correlation level of significant n	0.03 0.26 **40**

Discussion

The findings of this study of Attahadi University pharmacy students from levels one to three reveal that effects of national crisis on mental health falls with the category of rarely. It is worthwhile to note that despite the crisis that the students are currently experiencing, the results showed that they were able to adapt and was rarely affected. Students were able to develop some sense of resiliency. According to previous studies, mental health of adolescents has taken considerable attention worldwide, because of

a dramatic upward trend in suicide. More than twenty-five percent of adolescents in the U.S. have a mental health disorders and one in five of them are affected by mental health problems, which is estimated to account for larger burden of disease than any other class of health conditions [5, 6]. Most of the mental health problems are related to deprivation, poverty, inequality and other social and economic determinants of health. Economic crises are, therefore, times of high risk to the mental well-being of the population and of the people affected and their families [7]. Symptoms of a mental illness can be better or worse at times. This happens when people are doing their best to manage their illness too. Experiencing worsening symptoms for a short period of time is normal part of the recovery process. Sometimes an outside help is needed when symptoms become worse. Some people may also need urgent emergency help if they are at risk of hurting themselves or others. Fortunately, it takes steps to help control mental health crises and emergencies. Most people affected by emergencies will experience distress (e.g. feelings of anxiety and sadness, hopelessness, difficulty sleeping, fatigue, irritability or anger and/or aches and pains). This is normal and will for most people improve over time. However, the prevalence of common mental disorders such as depression and anxiety is expected to more than double in a humanitarian crisis [8]. WHO stresses that mental health is more than just the absence of mental disorders or disabilities. Peak mental health is about not only avoiding active conditions but also looking after ongoing wellness and happiness. Multiple social, psychological and biological factors determine the level of mental health of a person at any point of time. For example, violence and persistent socio-economic pressures are recognized risks to mental health. The clearest evidence is associated with sexual violence. Poor mental health is associated with rapid social change, stressful work conditions, gender discrimination, social exclusion, unhealthy lifestyle, physical ill-health and human rights violations [9].

According to WHO, in armed conflict generally, an estimated 17% and 15% of the population will suffer from depression and post-traumatic stress disorder (PTSD), respectively. Several other major studies in post-conflict, low-income countries have reported even higher rate of mental health challenge among the population. In a recent Libyan university study, pharmacy students are at a risk of being susceptible to getting mental disorders. It was found that mental disorder affects academic performance and quality of student life [10]. Indeed, a study carried out during 2010, covering a region of Liberia revealed that some 45% of the population exhibited symptoms of PTSD nearly 20 years after the end of the conflict [11]. Importantly, some studies have also shown a link between trauma exposure and views regarding conflict resolution, with one study on Northern Uganda finding that PTSD was correlated with support for violence as a means of conflict resolution [12]. The links between trauma exposure, including war-related trauma exposure, and the emergence of psychological distress. The 2015 Global Burden of Disease study found a positive association between conflict and depression and anxiety disorders. While most of those exposed to emergencies suffer some form of psychological distress, accumulated evidence shows that 15 - 20% of crisis-affected populations develop mild-to moderate mental disorders such as depression, anxiety and post-traumatic stress. Also, 3.0 - 4.0% develop severe mental disorders, such as psychosis or debilitating depression and anxiety, which affect their ability to function and survive [13]. A study of Sudanese refugees in northern Uganda study found correlations between the exposure to a conflict, the prevalence of PTSD and depressive as well as behavioural problems. It further found that the day-to-day hassles of life the children experienced were higher, relative to children in the same area who had not experienced conflict. PTSD is associated with comorbidity of wide-ranging symptoms, from attempted suicide, to bronchial asthma, hypert-ension and peptic ulcer among others [14].

According to International Organization for Migration (IOM), over the last decade, the Libyan people have suffered tremendously from conflict,

indiscriminate violence, but also from direct attacks on health care facilities, schools, water resources and residential areas. Damage and destruction of essential facilities consequently led to collapse of functionality of society and to a major economic crisis [14]. Another finding from the study reveals that the academic performance of the students are the same for levels one and three which have a verbal interpretation of good and only the second year level got the verbal interpretation of fair. Amidst crisis and uncertainties, none from the different year levels were able to get a verbal interpretation of weak. Though this result is a good indicator that students can cope with their studies, it cannot discount the fact that we still need to pay attention to developing or enhancing their coping strategies and ensuring for them to achieve their optimum mental health so as they can achieve their maximum potentials too in their academic performance. Adolescents showing strong mental health have good social skills with both adults and peers and their enhanced social and emotional behaviours have a strong impact on academic achievement. Therefore, mental health problems in adolescents may have an important influence on academic achievement, which in turn have lifelong consequences for employment, income, and other outcomes.

Frequent feelings of mental health problems exhibit school difficulties, including poor academic achievement. Adolescents displaying strong mental health are likely to have a better academic work and achievement, compared to adolescents displaying weak mental health [15]. The present study showed weak positive correlation between two variables, the mental health of the students and their academic performance. Student life can be stressful and for some students it may cause mental distress. Besides being a major public health challenge, mental distress can influence academic achievement [15]. Mental health problems can affect many areas of students' lives, reducing their quality of life, academic achievement, physical health and satisfaction with college experience and a negative impacting relationships with friends and family members. These issues can also have long-term consequences for students, affecting their future employment, earning potential, and overall health [15]. Mental health problems can affect a student's energy level, concentration, dependability, mental ability, and optimism, hindering performance. Research suggests that depression is associated with lower grade point averages and that co-occurring of depression and anxiety can increase association this. Depression has been linked to dropping out of school [16]. Current analysis aimed to determine the relationship between mental health and academic achievement in adolescents. This, as expected, confirmed a positive relationship between mental health and academic achievement. The research also indicated that mental health of adolescents is very important for schooling, in that, it has a potential to effect academic achievement. It is deemed crucial for adolescents to have a strong mental health to perform better academically in school, which in turn have life-long consequences for employment, income and outcomes. The present findings showed that mental health was a stronger predictor of academic performance than other predictors and students whose mental health improved made better academic progress than students whose mental health did not improve or worsened.

Conclusion: Mental health of the students at Attahadi University is not affected by the national crisis but it is still worthwhile to note that effects do exist and that mental health could be one area of concern to look into as WHO advocates a complete state of health. Although, the academic performance of some students are not that high but there is no weakness which proves that students are coping despite the crisis that they are experiencing. A relationship that was established in this study concludes the state of mental health of the students affects their academic performance.

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