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Chapter

Conflict Settings and COVID-19's Effects on Psychological Health

Derebe Madoro

Abstract

The COVID-19 epidemic's ongoing effects on the conflicted, disturbed environment tend to exacerbate mental health issues. People from areas afflicted by conflict are put under double stress as a result. The majority of displacement due to conflict has occurred in Ethiopia. Mental disturbance among those affected by conflict has been recognized as a significant public health issue. Therefore, this study's objective was to assess how the COVID-19 outbreak in Ethiopia's conflict-affected population affected people's mental health and its correlates. Mental distress was reported at about 49.4% with a 95% CI of 47 to 52.9%. Being female gender (AOR = 3.01, 95% CI 1.61, 5.44), fired house materials when present (AOR = 3.49, 95% CI 1.61, 5.44), Living in a host community (AOR = 1.8, 95%CI 1.97, 3.35), living alone (AOR = 3.57, 95%CI 2.06, 6.19), and sexual assault (AOR = 4.1, 95% CI 2.37 to 6.94) were found to be substantially correlated. Conflict-affected people have a high risk of mental distress during COVID-19 era. Therefore, the ministry of health and humanitarian organizations should work collaboratively in providing consistent; psychosocial support and appropriate intervention for conflict-affected people.

Keywords: psychological health, conflict, setting, COVID 19, Ethiopia

1. Introduction

In order to address the health and development catastrophe brought on by the virus, low- and middle-income countries get assistance from the UN COVID-19 Response and Recovery Fund [1]. The COVID-19 conference took place in Eastern Africa while the region's governments struggled with a number of problems. Millions of people have been compelled to leave their homes due to protracted hostilities, droughts, and insecurity [2]. Millions more have fled to neighboring countries where they live in makeshift refugee camps. The majority of the countries in the region are in some type of fragile and conflict-prone state (for example, Somalia and South Sudan) and/or are undergoing political reform (for example, Sudan and Ethiopia). They have a very low capability to contain the COVID-19 pandemic and lower the ensuing unemployment, poverty, and hunger [2].

Some of the most significant political, security, and conflict developments related to COVID-19 and its effects on neighboring nations include the postponement of Ethiopia's August 2020 elections and the declaration of a state of emergency by the government. Given that many of Ethiopia's most potent opposition groups and one of

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its most potent regional governments (Tigray) have voiced their opposition to these changes, this might be a significant source of conflict. If COVID-19 spreads widely across the nation, the mounting costs of the disease could cause significant sociopolitical instability. COVID-19's rising economic expenses could become sources of serious socio-political instabilities if it spreads broadly across the country. Since November 4, 2020 war has been started following Ethiopian Northern Command attack by Tigray People Libration Front (TPLF). A millions were displaced, thousands massacred, all public and private infrastructures destroyed in the conflict setting, children were raped in group, thousands killed [3, 4]. This in turn highly influences the mental well-being of conflict-affected people in Ethiopia during COVID-19 era.

"One in five persons in conflict zones lives with some type of mental disease, ranging from mild sadness or anxiety to psychosis," was according to WHO data from 2019. To contain the COVID-19 epidemic and reduce the accompanying unemployment, poverty, and starvation, it is also stated that "almost one in ten people live with a mild or severe mental disorder [5]." Despite the fact that there was limited research among students from conflict-affected areas, various research on the impact of the pandemic on individuals' mental and psychological well-being, notably at the college and university level, were undertaken during COVID-19 in Ethiopia. In the Benchi Sheko zone, for instance, the prevalence of sadness, anxiety, and stress was 21.2%, 27.7%, and 32.5%, accordingly [6], while the psychological impact of COVID-19 was 16.2% among college students [7]. According to another study, 22.2%, 39.6%, and 40.2% of graduating class members, respectively, suffered from stress, anxiety, or depression [8]. In a related study, depression was shown to be widespread in 46.3% of participants, anxiety in 52%, and stress in 28.6% [9]. The prevalence of depression, anxiety, and stress among university students in Addis Abeba was 51%, 51.6%, and 11.1%, respectively [10].

Students are subjected to both direct and indirect repercussions of violence during armed conflict, including erroneous military enlistment, murders, gender-based violence, trafficking, illegal detentions, and family separation [11]. Schoolchildren who have experienced conflict are more likely than those who have not to experience post-traumatic stress disorder, sadness, or anxiety [12]. Direct and indirect exposure to traumatic events, as well as increased levels of daily stressors, are suggested to be the causes of these effects [13]. There are not many mental health therapies available for conflict-affected students, and treatment disparities between adults and primary school students in low-resource settings are even worse [14].

People who have had to move frequently have gone through various traumas, acts of violence, wounds, and economic crises, making them more vulnerable to psychiatric issues [15–17]. The following issue is likely to get worse as a result of the COVID-19 epidemic's ongoing spread. Despite this, there are no reports on the influence of the pandemic and the conflict environment on the mental health of those affected by the conflict in Ethiopia. For people affected by armed conflict, mental anguish has been identified as a key public health concern and has been connected to social network alterations, poverty, unemployment, community violence, and unsecured living situations. Therefore, even when the hostility has subsided and the crisis has passed, emotional distress is substantially associated with a lower quality of life [18, 19]. Additionally, mental trauma can affect anyone and have a detrimental effect on everyday activities, sleep quality, productivity, and job performance [9]. Their long-term academic, social, and mental health results may be significantly impacted by their capacity to manage the epidemic and to effectively and correctly regulate their emotions and behavior during the pandemic [20].

The prevalence of mental disorders appears to be significantly higher than the general population in post-conflict and conflict-ridden cultures, including student populations [21]. Statistical estimates from a number of general population studies indicated that the prevalence of mental distress ranges from 1% to 5% [22, 23], and for high-risk populations such as displaced people [24, 25], it ranges from 3% to 58%. When COVID-19 was in effect, it was anticipated that mental anguish would increase in a conflicting environment [26]. To the best of the investigators' knowledge, Ethiopia has not had any particular published studies. As a result, this study aimed to close that gap by generating new knowledge regarding the mental health of conflict-affected people in Ethiopia during the COVID-19 era.

2. Methods

From April 1 to April 30, 2021, a community-based cross-sectional survey was undertaken. During the mid-COVID-19 outbreak in south Ethiopia, the survey was done in conflict-affected areas. In which more than a million were displaced in year 2018 due to inter-communal violence and conflict between Gedeo and Guji zone in south Ethiopia [27]. The respondents were chosen using a systematic random selection procedure. Because the conflict-affected people resided in different sites, proportional allocation to the number of household in each site was used to ensure that the sample was representative. The study covered all houses in the conflict-affected area of south Ethiopia that are situated on the border between the Gedeo and West Guji zones, as well as those that were accessible during the data collection period. Seriously ill people were not allowed to participate in the study.

According to a study conducted in Adama, Ethiopia, the sample size was calculated using the single population proportion technique, with a 3% margin of error (d), a 95% confidence interval of certainty (alpha = 0.05), and a 10% non-response rate, assuming p = 21.6%. [28]. A total of 795 people were chosen as a representative sample size. Mental distress was the study's dependent variable. Conflicted- and trauma-related factors, clinical-related factors (history of mental illness, family history of mental illness, pre-existing medical illness), COVID-related factors (suspected/confirmed for COVID-19, knowledge about COVID-19), and social support were all independent variables. Using pretested questionnaires, data was collected by six Bsc nurses and routinely monitored by three psychiatry professionals. The questionnaire was translated into Amharic and then back to English to verify uniformity. Data collectors were taught how to conduct interviews with respondents and how to clarify any ambiguous questions as well as the study's goal. They were also taught about ethical principles and how to gain informed consent from respondents.

Mental distress was measured using the Kessler Psychological Distress Scale (K-10, [29]). The K10 scale, which consists of 10 questions on emotional states and a five-point rating scale for each response, is an easy way to gauge psychological distress. The K10 scale is a 10-item survey that asks respondents to score their recent 30-day anxiety and depressive symptoms on a five-point Likert scale. Participants in this study were classified as normal if they received a score of 20 or less, whereas those who had a score of 20 or more were identified as experiencing emotional distress [30]. It was validated with a consistency of 0.93, sensitivity of 84.2%, and specificity of 77.8% at a cut-off point of 6/7. It was reasonable as a result [31].

The Oslo-3 social support scale, which goes from 3 to 14, is used to assess social support. According to this scale, those who score between 3 and 8 are considered to have insufficient social support, those who score between 9 and 11 have moderate social support, and those who score between 12 and 14 have high social support [32]. According to this study's findings, pupils who scored below the minimum requirements during the study's conduct had lower law achievement. Data on sociodemographics, drug use history, clinical variables, COVID-19-related characteristics, and conflict and trauma-related events were gathered using yes/no response questionnaires and operationalized in accordance with a number of academic works.

Epidata version 4.2 was used to clean, code, and enter data, which was subsequently exported to SPSS Data was cleaned, coded, and entered using Epidata version 4.2 before being exported to SPSS version 24 for descriptive methods analysis and data summarizing. Logistic regression analysis was used to establish links between mental anguish and related factors. In bivariable logistic regression, variables with a P value of less than two were included in the multivariable logistic regression model. An adjusted odds ratio (AOR) with a 95% confidence interval was used to assess the strength of associations, and a P value of less than 0.05 was considered statistically significant (CI).

3. Results

A total of 795 participants participated in the study, and all of them responded. Men made up the majority of the 412 responders (51.8%). The responders were, on average, 21.98 (2.22) years old. Urban areas produced the bulk of responses (517, or 65.1%) (**Table 1**).

Variables	Frequency(n)	Percent (%)
Age		
15–19 years old	403	50.6
20–24 years old	238	29.9
≥25 years old	154	19.3
Gender		
Male	412	51.8
Female	383	48.2
Religion		
Orthodox	117	14.7
Protestant	588	73.9
Catholic	74	9.3
Muslim	11	1.4
Other*	5	0.6
Perform less well than anticipated		
Yes	354	44.5
No	441	55.4

Variables	Frequency(n)	Percent (%)
Living area		
Urban	517	65.1
Rural	278	34.9
Living with		
Alone	185	23.3
With single parents	166	20.9
With friends/relatives	67	8.4
With both parents	377	47.4
Financial constraint		
Yes	496	62.4
No	299	37.6
Living in host community		
Yes	431	54.2
No	364	45.8

Table 1.Description of socio-demographic factors among people from conflict affected setting in South Ethiopia, 2021 (n = 795).

Regarding the COVID-19-related factors, 93(11.5%) of respondents had a history of possible or proven positive for COVID-19. Out of the total respondents, 17(2.1%) had experienced death in the household and most of the respondents 598(75.2%) had Sufficient familiarity with COVID-19. With regard to clinical characteristics, 122 (15.3%) of the respondents had ever been treated for a known psychiatric illness. Of a total study participants, 150(18.9%) were khat users within 3 months. With respect to psychosocial characteristics of respondents, more than one-third of respondents 306(38.5%) had a poor social assistance (**Table 2**).

Out of the total participants, 461(57%) of participants reported aversion to safety and 358(45%) observe firing house materials around them. Whereas, more than one-third (68%) of participants family's houses were destroyed during conflict (**Table 3**). The prevalence of mental distress among conflict-affected people from conflict-affected settings were determined to be 49.4% in this study, with a 95% confidence interval of (47–52.9%). Multivariate logistic regression revealed significant correlations between respondents' mental distress and sexual assault, house fires when present, female gender, residing in the host community, and living alone, all with a P value of 0.05.

Sexual assault victims were 4.1 times more likely than their peers to experience mental distress (AOR = 4.1, 95% CI 2.37–6.94). When compared to their counterparts, people who had their homes fired upon during hostilities or war had a 3.49 higher risk of developing mental distress (AOR = 3.49, 95% CI 1.61, 5.44). Females were 3.01 times more likely than males to experience mental distress (AOR = 3.01, 95% CI 1.61–5.44). Those living in the host community were 1.8 times more likely to have mental distress (AOR = 1.8, 95%CI 1.97, 3.35), and participants living alone were 3.57 times more likely to have mental distress (AOR = 3.57, 95%CI 2.06, 6.19) (**Table 4**).

Variables	Frequency(n)	Percent (%)
Possible or proven positive for COVID-19		
Yes	93	11.7
No	702	88.3
I read about COVID-19 for the majority of the time		
Yes	128	16.1
No	667	83.9
Known mental illness		
Yes	122	15.3
No	673	84.7
Psychiatric problem in the family		
Yes	92	11.6
No	703	88.4
Health issue that was present before		
Yes	168	21.1
No	627	78.9
COVID death in the household		
Yes	17	2.1
No	778	97.9
Sufficient familiarity with COVID-19		
Yes	598	75.2
No	197	24.8
Received education on COVID-19		
Yes	205	25.8
No	590	74.2
Social assistant		
Low	306	38.5
Medium	352	44.3
High	137	17.2
Alcohol use in the past 3 month		
Yes	39	4.9
No	756	95.1
Khat use in the past 3 month		
Yes	150	18.9
No	645	81.1
Tobacco use in the past 3 month		
Yes	21	2.6
No	774	97.4

Table 2.

Description of COVID related, psychosocial, clinical and behavioral factors of participants from conflict affected setting in South Ethiopia, 2021 (n = 795).

Variables	Percent (%)
Childhood abuse	15
Family tragedy	17
Injury	19
Engaged in the conflict	22
Abducting	25
Split from family	27
Torture	30
Sexual assault	32
Absence of shelter	39
Observe firing house materials	45
Food security	55
Aversion to security	57
Assets devastation	68
Imprisonment	27
Being in war	21
Childhood abuse	39

 Table 3.

 Trauma and conflict related events from conflict affected setting in South Ethiopia, 2021 (n = 795).

Explanatory variables	Mental distress		COR(95%CI)	AOR(95%CI)
	Yes	No		
Gender				
Male	185	227	1	1
Female	275	108	3.12 [1.84, 4.37]	3.01 [1.61, 5.44]
Age				
15-19	318	85	3.55 [1.32, 3.99]	2.9 [0.17, 3.4]
20–24	166	72	2.1 [2.18, 4.33]	1.9 [0.89, 3.1]
> = 25	79	75		1
Living area				
Urban	329	185	1.58 [1.18, 2.14]	1.41 [0.56, 3.04
Rural	147	131	1	1
Social support				
Poor	102	204	4.1 [2.49, 6.29]	3.33 [0.95, 5.70
Moderate	56	296	1.54 [0.87, 2.50]	1.34 [0.76, 2.38
Strong	15	122	1	1
Health issue that was present before				
Yes	111	57	1.45 [0.95, 2.25]	1.26 [0.76, 2.0
No	359	268	1	1

Explanatory variables	Mental distress		COR(95%CI)	AOR(95%CI)
	Yes	No		
Sexual assault				
Yes	74	99	3.26 [2.05, 5.04]	4.06 [2.37, 6.94]
No	116	506	1	1
Sufficient familiarity with COVID-19				
Yes	122	476	0.68 [0.55, 2.64]	1.1 [0.87, 2.19]
No	54	143	1	1
Fired house martials when present				
Yes	292	66	3.69 [2.54, 5.39]	3.49 [2.7, 5.89]**
No	238	199	1	1
Living in host community				
Yes	145	286	2.12 (1.95,4.15)	1.8 [1.97, 3.35]*
No	70	294	1	1
Living with				
Alone	70	114	2.87 (2.03, 5.31)	3.57 [2.06, 6.19]
With single parents	29	137	0.98 (0.51, 1.86)	1.19 (0.62, 2.26)
With friends/relatives	11	55	0.92 (0.71, 2.19)	1.46 (0.80, 2.68)
With both parents	67	311	1	1

^{***}p < 0.001.

Table 4.Multivariable logistic regression analysis showing an association between factors and mental distress among people from conflict affected setting in South Ethiopia, 2021 (n = 795).

4. Discussion

The prevalence of mental distress was found to be 49.4% in this study, with a 95% confidence interval of (47–52.9%) among conflict-affected people, according to the findings of this study. The prevalence found in this study resembles that found in Saudi Arabia (58.1%) [9], and Pakistan 57.6% [33]. On the other hand, the results of the present investigation were lower than those of a Pakistani study, which registered 68.4 [34]. The gap may be because of different methodologies utilized in Pakistan to conduct an online cross-sectional survey, which could have produced results that were more subjective and biased than those acquired through the in-person interviews used in this study. Financial, cultural, or environmental disparities could also have a role. Nevertheless, the prevalence found in this study was higher than that seen in earlier studies conducted in Canada 39.5% [35, 36], Malaysia 30.7% [34], China 27% [37], Croatia 19.4% [38], and Ethiopia 21.2% [6] 51.3% of the students at Addis Ababa were from Ethiopia [9], followed by Gondar 46.3% [39], 47% from students in Europe [40], and Pakistan 48% [41]. This study was conducted in a conflict-affected

environment during the COVID-19 era, however, specific participants from conflict-affected environments were not included in the earlier investigations. Each country may have a distinct level of understanding and perception of COVID-19, which measures people's capacity to cope with stress.

Participants who experienced firing house materials when present were 3.49 times more likely than those who did not experience firing household materials during the conflict/war to experience emotional distress. People, like other creatures, become anxious or terrified when exposed to or seeing a terrible scenario. The possible reason might be, the participants feel that those types of losses will be difficult, if not impossible, to replace, resulting in increased psychological distress. Also following a traumatic event like the destruction of personal property, acute stress is a typical response, if this problem persists may become a risk to develop PTSD. This finding is supported by a study done in northwestern Nigeria [42–44].

Being a female was found to be one of the strongest predictors of mental distress. Mental distress was three times more common in females than in males. According to the report, girls suffer more harm than boys because they are more likely to experience sexual assault on school property or because their parents keep them at home when the security situation deteriorates. According to research, girls usually quit school after it is full, and their educational outcomes in countries afflicted by violence are frequently worse than boys'. One of the reasons is a fear of sexual assault in the classroom [45]. During times of war, gender inequality is entrenched and women are disproportionately disadvantaged in terms of personal safety, resource access, and human rights. Girls who live in a nation that is experiencing conflict are about 2.5 times more likely to be out of school, and adolescent girls are almost 90% more likely to have dropped out of secondary school [46]. This collectively worsens people's mental health in a situation of conflict.

When compared to their counterparts, those who were living alone were 3.57 times more likely to have mental distress. These findings are in line with the studies done in Arbaminch town, Ethiopia, in Harar, and southeast Nigeria [47–50]. The answer could be that parents are more concerned about their daughters than their friends and relatives, which can reduce the likelihood of sexual abuse which in turn influences the mental health of thechildren who live with them in conflict areas during the era of COVID-19.

The odds of having mental distress among participants living in a host community due to internal displacement were 1.8 times higher as compared to their counterpart. Sexual abuse followed by mental distress in the past year and throughout the course of one's lifetime is strongly correlated with displacement. Those who have experienced displacement and living in a host community are 9–10% more likely to experience sexual violencewhich negatively influences their mental health at some point in their lives and 6–8% more likely to experience past years sexual violence [51–53].

When compared to counterparts, those who had sexual assault were 4.1 times more likely to have mental distress. The disparity could explain the observed disparities in tool, socioeconomic, environmental, and study design (in Croatia, for example, an 8-wave longitudinal study was used). In addition to the prevalence of wartime rape and sexual violence committed by people outside the home, rates of intimate partner violence are significantly higher in conflict settings [54]. For survivors of sexual and other gender-based violence, there can be a number of detrimental effects, including social ramifications and poor health [55]. A study found a considerable frequency of psychological distress and other mental issues among survivors of sexual and gender-based violence in areas of armed conflict. Anxiety disorders (including Posttraumatic

Stress Disorder (PTSD), major depressive disorder, medically unexplained problems, substance use disorders, and suicidal ideation are among the mental disorders reported [56].

5. Conclusion

High rate of mental distress was found from conflict affected setting. Being female, fired house materials when present, sexual assault, living host community, and living alone were all significant indicators of mental distress. As a result, the ministry of health and humanitarian organizations should collaborate to provide persons living in conflict-affected areas with constant psychosocial assistance and appropriate intervention. To reduce the double burden of COVID-19 and conflict on mental health, special attention is needed.

6. The Study's strengths and limitations

First, this is the first research of its kind in Ethiopia, involving peoples from conflict-affected areas. Second, it included key variables that had previously been overlooked in previous research. One of the study's strengths was that it measured the outcome variable with an updated standardized and validated instrument. Only students from conflict-affected parts of south Ethiopia were included, which was one of the disadvantages.

Ethical approval

All data collection methodologies, as well as the Helsinki Declaration, received ethical approval from Dilla University's college of health science and medicine's ethical review board under the number DU/225/7/111. Following a brief description of the study's purpose, we obtained written informed consent from those aged 18 and up, as well as assent (parental informed consent) from those under 18. The information was kept completely confidential.

Acknowledgements

The author of this chapter would like to express his gratitude to all of the university administration's personnel. Dilla University's Department of Psychiatry, College of Health and Medicine, merits our gratitude. Finally, I want to express my gratitude to all of the participants for their cooperation and assistance in gathering the essential information.

Author's contribution

The author participated in the article's drafting, revision, or critical review, gave final approval of the version that would be published, agreed on the journal to which the article would be submitted, and agreed to take responsibility for all aspects of the

Conflict Settings and COVID-19's Effects on Psychological Health DOI: http://dx.doi.org/10.5772/intechopen.107466

project. The author made a significant contribution to the work reported, whether it was in the conception, study design, execution, data acquisition, analysis, and interpretation, or all of these areas.

Funding

Non applicable.

Statement on data sharing

On reasonable request, the corresponding author made the data for this study available.



Derebe Madoro

Department of Psychiatry, College of Medicine and Health Science, Dilla University, Dilla, Ethiopia

*Address all correspondence to: derebemd@gmail.com

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