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PREVALENCE AND FACTORS ASSOCIATED WITH POST TRAUMATIC STRESS DISORDER AMONG INTERNALLY DISPLACED PEOPLES FROM ETHIOSOMALI REGION AND SETTLED IN ADAMA TOWN, ESTERN OROMIA, ETHIOPIA

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Abstract

Posttraumatic stress disorder is a condition marked by the development of symptoms after exposure to traumatic life events. Following the conflict in Ethiosomali region in Ethiopia peoples are internally displaced and have been subject to mental illness.

Objective – To assess the prevalence and factors associated with Post traumatic stress disorder among internally displaced people in Adama town.

Method- Community based cross sectional study was employed in Adama town of four camps where internally displaced peoples are settled. The duration of study was from May 2021 to June 2021.

Result - Study conducted on peoples who are displaced from Ethiosomali region and settled in Adama town a total of 623 individuals are interviewed for 96.65% respondent rates. As of among the total respondent 339[54.4%] are male and 284 [45.6%] are females. Age 19 -30 was 346 [55.5%] which are highly respondents. From the total of 623 of the respondent 475 [76.2%] them are married, 76 [12.2%] single, 36 [5.8%] Separated or divorced and additional 36 [5.8%] are widowed. Regarding educational level of the respondent 190 [30.5%] are illiterate, 325 [52.5%] grade 1-8, 88[14.1%] are 9-12 grade and only 15 [2.2%] of them are above TVET level. Concerning their daily income 469 [75.3%] of them are below 1000 Ethio

birr, 129 [20.7%] are earn 1000 -3000 birr per month and only 25 [4.0%] of them earn >3000 birr per month.

Conclusion -This study identified significantly higher Post traumatic stress disorder prevalence among internally displaced peoples, when compared with general population in the same town, three years after the Ethino region civil conflict. Mental health programs that are well coordinated should respond to the high prevalence of Post traumatic stress disorder in the study communities.

Key words –Associated factors, internally displaced people**,** Post traumatic stress disorder and Prevalence

1. INTRODUCTION

Posttraumatic stress disorder is a condition marked by the development of symptoms after exposure to traumatic life events. The person reacts to this experience with fear and helplessness, persistently relives the event, and tries to avoid being reminded of it, [1].

In the United States about 3.5% of adults have post-traumatic stress disorder in a given year, and 9% of people develop it at some point in their life [2]. In much of the rest of the world, rates during a given year are between 0.5% and 1%.[2] Higher rates may occur in regions of armed conflict.[3] It is more common in women than men.[4] Symptoms of trauma-related mental disorders have been documented since at least the time of the ancient Greek.[4] During the world wars the condition was known under various terms including shell shock" and "combat neurosis".[5] The term "posttraumatic stress disorder" came into use in the 1970s in large part due to the diagnoses of U.S. Military veterans of the Vietnam War.[6] It was officially recognized by the American Psychiatric Association in 1980 in the third edition [6]

With course and prognosis, posttraumatic stress disorder usually develops sometime after the trauma [1]. The delay can be as short as 1 week or as long as 30 years. Symptoms can fluctuate over time and may be most intense during periods of stress. Untreated, about 30 percent of patients recover completely, 40 percent continue to have mild symptoms, 20 percent continue to have moderate symptoms, and 10 percent remain unchanged or become worse [1]. After one year, about 50 percent of patients will recover. A good prognosis is predicted by rapid onset of the symptoms, short duration of the symptoms, less than 6 months, good pre morbid functioning, strong social supports, and the absence of other psychiatric, medical, or substance-related disorders or other risk factors [1].

People of all ages can have post-traumatic stress disorder [8]. However, some factors may make some one more likely to develop post-traumatic stress disorder after a traumatic event, such as: experiencing intense or long-lasting trauma, Having experienced other trauma earlier in life, such as childhood abuse, Having a job that increases your risk of being exposed to traumatic events, such as military personnel and first responders, Having other mental health problems, such as anxiety or depression, having problems with substance misuse, such as excess drinking or drug use, lacking a good support system of family and friends and having blood relatives with mental health problems, including anxiety or depression [8]

Symptoms of PTSD fall into four categories in which Specific symptoms can vary in severity. The first one is Intrusive thoughts such as repeated, involuntary memories; distressing dreams; or flashbacks of the traumatic event. Flashbacks may be so vivid that people feel they are re-living the traumatic experience or seeing it before their eyes. Secondly avoiding reminders of the traumatic event may include avoiding people, places, activities, objects and situations that bring on distressing memories. People may try to avoid remembering or thinking about the traumatic event. They may resist talking about what happened or how they feel about it [9].

Additionally there are negative thoughts and feelings may include ongoing and distorted beliefs about oneself or others (e.g., “I am bad,” “No one can be trusted”); ongoing fear, horror, anger, guilt or shame; much less interest in activities previously enjoyed; or feeling detached or estranged from others. Lastly patient also suffers from arousal and reactive symptoms may include being irritable and having angry outbursts; behaving recklessly or in a self-destructive way; being easily startled; or having problems concentrating or sleeping [9].

The main treatments for people with post traumatic stress disorder are medications, psychotherapy, or both. Everyone is different, and PTSD affects people differently, so a treatment that works for one person may not work for another. It is important for anyone with PTSD to be treated by a mental health provider who is experienced with PTSD. Some people with PTSD may need to try different treatments to find what works for their symptoms. If someone with PTSD is going through an ongoing trauma, such as being in an abusive relationship, both of the problems need to be addressed. Other ongoing problems can include panic disorder, depression, substance abuse, and feeling suicidal [10].

2. OBJECTIVE

2.1. GENERAL OBJECTIVE

-To assess the prevalence and factors associated with post-traumatic stress disorder among internally displaced peoples from ethio somali region and settled in Adama town

2.2. SPECIFIC OBJECTIVE

To assess the prevalence of post-traumatic stress disorder among internally displaced peoples from ethio Somali region and settled in Adama town, 2021

To identify factors associated with post-traumatic stress disorder among internally displaced peoples from ethio Somali region and settled in Adama town, 2021

3. METHODS AND MATERIALS

3.1. Study Area

Adama town is geographically located in east Showa, Oromia, Ethiopia at a distance of 84 kilometers east of capital city through express way. The geographical coordinate is 8”330 north; 39”160 east. The total area covered is 44,793meter square. Adama town is contiguous with Modjo town in south, Wonji and Awash in the east, from west Minjar shenkora and Boset woreda in the north side. In its entirety Adama town is subdivided into six sub cities and 18 kebeles. The sub cities are named as Abageda, Boku, Dabesoloke,Lugo, Bole, and Dembela. Projected total population is 356,660 in the city. Among the major ethnic group living in the Adama Oromo nation is dominant population. Others include Amhara, Gurage, and Tigre in descending order. Seven thousand internally displaced peoples are resettled in Adama city from Ethiosomali region in four camps under 1345 families.

3.2. Study Design and Period

Community based cross sectional study designs was employed from March to June /2021

3.3. Population

3.3.1. Source population

- The source population was all internally displaced people from Ethio Somali region and settled in Adama town

3.3.2. Study Population

- The study population were age >12years internally displaced peoples from Ethio Somali region and settled in Adama town

3.4. Eligibility criteria

3. 4.1. Inclusion criteria

- Person above age 12 years who are internally displaced from Ethio Somali region and settled was included in the current study

3.4.2. Exclusion criteria

- We excluded people age bellow 12 years, peoples who are non-coherent and who refused interview to have relevant information.

3.5. Sample size determination

The sample sizes were determined by using a formula for estimation of a single population proportion considering the following assumptions;

Z= 1.96; the corresponding standardized value of normal distribution at 95% confidence interval

P= 0.15; the prevalence of post-traumatic stress disorder among internally displaced people in Ethiopia has been reported to be 15.8%.

d = 0.02; the maximum level of tolerable error in estimating outcome of interest

n= minimum required sample size

Accordingly the minimum required sample size determined as follow;

$$n = \frac{(Z_{\frac{\alpha}{2}})^2(\mathrm{P})(1-\mathrm{P})}{(d^2)} = \frac{(1.96)^2(0.158)(0.842)}{(0.03)^2} = 568$$

Adding 10% non-response rate finally 1404subjects will be incorporated in the current study;

n_f =568+57= 625 clients.

Specific objective 2- Factors associated with post-traumatic stress disorder among internally displaced peoples from ethio Somali region.

The sample size for the second specific objective of this study is determined by considering factors that are significantly associated with the outcome variables. The sample size is

calculated using three factors from the studies done on post-traumatic disorder and associated factors among internally displaced people with two sided confidence level of 95%, the margin of error of 5%, power of 80% and the ratio of exposed to unexposed1:1 using Epi InfoVersion7software (Table 1).

The sample size for the second objective, the factor with maximum sample size is chosen which is 164 and .By considering both the objectives, the first objective sample size is greater than the second one Thus, the sample size of the first objective is taken as final sample size which is 625 including 10% non-response rate

Table 1: sample sizes for factors associated with post-traumatic disorder

Factors	P1(Percentage of control)	P2(Percentage of case)	Power	CI	Odds ratio	Ratio	Sample size	Reference
Sex	31.4	22.5	80%	95%	2.40	1:1	164	(29)
Displacement characteristics	16.3	23.3	80%	95%	4.14	1:1	88	(16)
Murder of family/friend	41.1	13.5	80%	95%	0.059	1:1	26	(29)

3.6. Sampling Procedure

Seven thousand internally displaced people were displaced during oromia Somali region conflict and settled in four camps of Adama town called, Chokonu- 1, 2, 3 and sekekelo village of Adam town with total populations of 3279, 594, 1327 and 1800 in each respectively. Therefore all camps were selected for the current study and the Sample size was allocated for each camps based on population they hold. So data were collected 293 from chokonu one, 53 from chokonu two, 118 from chokonu three and 161sample from Sekekelo. The list of household in each camp was received from administrative office and household were selected using simple random sampling technique from the list. Population greater than age 12 years were randomly selected. Those people who refuse to participate in the study were compensated by the next household.

3.7. The variable

Dependent Variables

- ✓ Post-traumatic stress disorder

Independent Variables

- ✓ Sex
- ✓ Age
- ✓ Educational status
- ✓ Marital status
- ✓ Occupation
- ✓ Family size
- ✓ Monthly income of the family

3.8. Operational definition

Prevalence -It is the proportion of a particular population found to be affected by a medical condition. It is derived by comparing the number of people found to have the condition with the total number of people studied.

Associated factors –Make conceptual connection between, dealing with, allow oneself to be connected with or seen to be supportive.

Post-traumatic stress disorder - is a debilitating psychological condition triggered by a major traumatic event, such as rape, war, a terrorist act, death of a loved one, a natural disaster, or a catastrophic accident. It is marked by upsetting memories or thoughts of the ordeal, “blunting” of emotions, increased arousal, and sometimes severe personality changes.

Internally displaced persons - are “persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border (OCHA 1999).

3.9. Data collection tool

The tool applied in this study was adopted from Harvard trauma assessment and board certified. The questionnaire applied in the study consisted of two parts. The first part contained the demographic and socioeconomic data, including age, sex, parental marital status, parental kinship, parental occupation, family size, and other variables such as bereavement, social support strength; the second part consists of various kinds of associated factors.

3.10. Data collection method

An interview questionnaire was completed voluntarily by the peoples of age >12 years. The study was conducted in conjunction with social and public health department, Adama Hospital Medical College. The duration of study was from March/2021 – June/2021. The study was community based cross sectional study. It will be carried out in the Adama town of four camps where internally displaced people settled.

Data were obtained according to a questionnaire. The data collectors' was trained to gather data accordingly for 625 peoples of > 12 years age included in the study.

3.11. Data quality assurance

To ensure data quality standard questionnaire was adapted from Harvard trauma assessment tool. Corrections and modifications were made based on DSM –VR criteria to diagnosis of post traumatic stress disorder. Conceptual framework for assessment of factors associated with Post traumatic stress disorders adapted from different literatures. Data collection process was monitored. Training was given for data collectors and supervisors on data collection tools and procedures. Data was checked for completeness and consistency. Any incomplete information was checked and completed during supervision.

3.12. Data Processing and Analysis

The collected data was entered in to Epi info version 7 then exported to SPSS version 20 for analysis. Before analysis data cleaning, categorizing and coding were done. Descriptive analysis was performed to explore the characteristics of study participants. Binary logistic regression analysis was used to identify the factors associated with Post traumatic stress diaorder. Bi variate logistic regression analysis were undertaken to select candidate independent variables associated with post traumatic stress disorder. At this level P-Value less than 0.25 was used as cut off point for selection of variables. Multivariate logistic regression analysis was used to estimate the adjusted effects of independent variables on post traumatic stress disorder. The magnitude of association between independent and dependent variable was estimated using Odds Ratio (OR) with 95%CI and the significance of association was declared at P-value less than 0.05.

3.13. Ethical Consideration

To conduct the study, the research proposal was examined and screened for scientific and ethical clearance by institutional review board for approving research in the college of medical science, Adama Hospital Medical College. Prior to administering the survey and

collecting data, permission letter were given to, Adama town municipality and authorities of different levels, in Adama town where the study was conducted. Data collectors also ask permission from respondents' to gain full commitment about the study. They were given clear information about the study and each voluntary participant was sign out on consent prepared in local language. The informed consent of all study participants were obtained prior to the commencement of the study. All data was treated in a way that protects the confidentiality and of the participants involved in the study.

3.14. Dissemination of the results

The finding of the study was disseminated to Adama city administrators, Adama Hospital Medical College stuffs, Oromia health Beuro, zonal health department to update the available information and use for intervention. In addition the copy of this study was reserved in Adama Hospital Medical College as a reference for other students. Finally the outcome of the study will be published on reputable journal for scientific community.

3.15. Limitation

This study adopted a cross sectional design and therefore it is difficult to determine the direction of causality of the factors associated with PTSD.

The study could not incorporate survivor treatment and psychosocial interventions due to financial scarcity. The low education level of the respondents became hard for some respondents to remember the number of events three years after the conflict. The events reported in this study could have been lower than the actual events experienced.

We also depended on verbal reports from respondents to determine symptom manifestation and yet family members may not have accessed mental health services for a diagnostic interview/assessment.

We used only a few Psychiatric nurses to collect data and the remaining data collectors are general Nurse which creates a problem in understanding PTSD symptom even though training was sought for them. Though this is quite the fact that there are few mental health workers by the time this study was conducted.

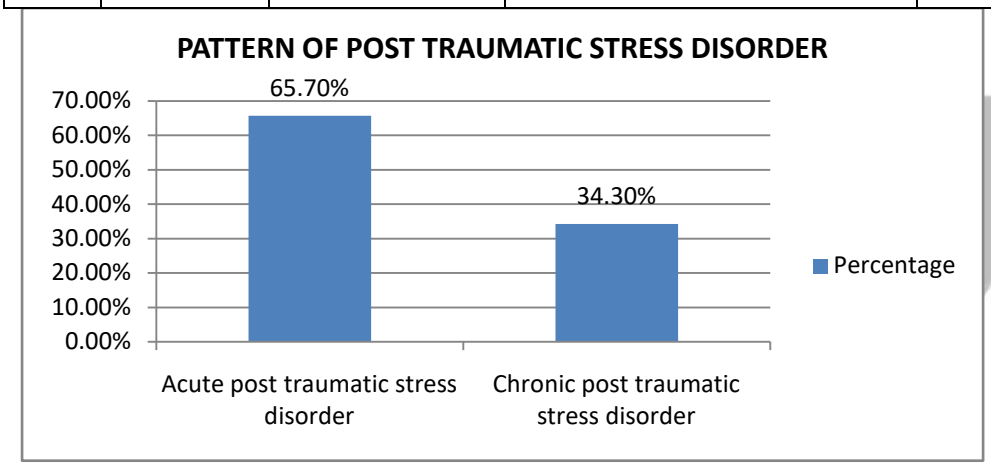
CHAPTER FOUR- ANALYSIS AND DISCUSSION

4.1. ANALYSIS

Table.1. Socio demographic characteristics of the respondent

S/No	Characteristics		Frequency	percentage
1	Sex	Male	339	54.4
		Female	284	45.6

		Total	623	100
2	Age	12 -18 years	42	6.7
		19 -30 years	346	55.5
		31 -45 years	191	30.7
		46 -65 years	41	6.6
		>65years	3	0.5
		Total	623	100
3	Marital status	Unmarried	76	12.2
		Married	475	76.2
		Separation/Divorce	36	5.8
		Widowed	36	5.8
		Total	623	100
4	Education	Illiterate	190	30.5
		1 -8 grad	325	52.2
		9 -12grade	88	14.1
		TVET	14	2.2
		>Degree level	1	1.0
		Total	623	100
5	Income /month	<1000 birr	469	75.3
		1001 -3000birr	129	20.7
		>3001	25	4.0
		Total	623	100



Bar chart.1-Shows prevalence of traumatic stress disorder.

S/No	Forms of the traumatic stress disorder		
		Frequency	100%
1	Witness of others injury	391	66.1
2	Bereavement	205	34.7
3	Relocation	140	23.7
4	Loss of property	239	25.1

Table 2- Shows forms of post traumatic stress disorder

S/No	Substance use by respondent	Yes	Percentage	No	percentage
		202	34.2	389	65.8

	Types of substance use	Frequency	Percentage
1	Kchat	180	30.5
2	Cigarette	81	13.7
3	Alcohol	8	1.4
4	Shisha	10	1.7

Table 3-Current Pattern of Substance uses by traumatic stress disorder symptom respondent

4.2- DISCUSSION

Conducted study on prevalence and factors associated with Posttraumatic Stress Disorder is still meager in Ethiopia like countries, yet PTSD can be a public health problem in post conflict areas. In order to respond to the burden of PSTD in Eastern Ethiopia, an area that experienced civil strife for over three decades, we need accurate data on its prevalence and the associated risk factors to facilitate public mental health planning.

In the study conducted on peoples who are displaced from Ethiosomali region and settled in Adama city a total of 623 individuals are interviewed for 96.65% respondent rates. The assessment shows that the prevalence rate of PTSD in Adama town among IDP is 34.3%. In USA its prevalence extends to 15 – 24%, in low income countries it is upto15%, Cambodia 28.4%, Algeria 37.4, Gaza 28.4, in Ethiopia 17.8% especially 37.3 in Koshe landslide survivor in Addis Ababa. These modest differences could be attributed to the differences in sample size, economic difference and tolerance for symptom in culture.

As of among the total respondent 339[54.4%] are male and 284 [45.6%] are females. Age 19 -30 was 346 [55.5%] which are highly respondents. From the total of 623 of the respondent 475 [76.2%] them are married, 76 [12.2%] single, 36 [5.8%] Separated or divorced and additional 36 [5.8%] are widowed. Regarding educational level of the respondent 190 [30.5%] are illiterate, 325 [52.5%] grade 1-8, 88[14.1%] are 9-12 grade and only 15 [2.2%] of them are above TVET level. Concerning their daily income 469 [75.3%] of them are below 1000 Ethio birr, 129 [20.7%] are earn 1000 -3000 birr per month and only 25 [4.0%] of them earn >3000 birr per month.

In Ethiopia, according to the study conducted on prevalence and factors associated with PTSD among IDP in Adama Town, 391 [66.1%] of them suffer from witness of others injury, 205[205]34.7% bereaved important part of their close relative, 140[23.7%] relocated and displaced, 230[25.1%] of them loss their property. Similarly in Nigeria, according to study conducted on Prevalence of Violence and Symptoms of Post-Traumatic Stress Disorder

among Victims of Ethno-Religious Conflict, 67.2% respondents had witnessed some form of ethno-religious violence ranging from seeing someone get killed 36.8%, someone get stabbed 16.7% or shot 20.6% to loss of property 31.4%, and relocation from residence 26%. 8.8% respondents reported that they had been hospitalized as a result of injuries sustained during the violence, [21].

Findings from the Australian National Survey of Mental Health and Well-Being, six percent had an alcohol use disorder, 2.2% had a cannabis use disorder, 0.5% had a sedative use disorder, 0.4% had an amphetamine use disorder, and 0.3% had an opium use disorder. It is important to note that 85% of the people with a substance use disorder had only one substance use disorder, and at best [26]. This study analysis the types of the substance frequently used by trauma survivor as, Kchat consumed by 180[30.5%] of the respondent, Cigarette 81[13.7%], alcohol 8[1.4%] and 10 [1.7%] of them smoke shisha. The difference in the types of the substance that survivors use and frequency depends on culture, religion and availability of the substance in the area. Based on conducted study 47[8%] of PTSD manifest symptom on day time, 143[24.25%] of them show symptom at night time and 401[67.9%] both day and night time.

Respondent response in relationship to traumatic stress disorder state that not worth living 345[58.4%] of them respond to yes and 246[41.6%] of the respondent react to with no response. 370[62.6%] respond to yes for suicidal thought and 221 [37.4%] respond with no any suicidal thought. Regarding the pattern of sleep 254[43%] of them suffer from lack of sleep and 337[57%] with no difficulties of sleeping. During incident only 53[9%] provided social support and 538[91%] did not provided any kinds of social support. From among those who suffer incident 524[94.2%] had previous any kind of mental illness in their family and 557 of the have mental illness within themselves.

4.3 –Conclusion

This study identified significantly higher PTSD prevalence among IDPs, when compared with general population in the same territories, three years after the Ethino region civil conflict. Mental health programs that are well coordinated should respond to the high prevalence of PTSD in the study communities. Reducing the burden of PTSD is vital since this disturbance can interfere with the normal functioning and productivity of community members.

Bivariate logistic regression revealed that Age, marital status, educational status, monthly income, loss of appetite, had waves of strong feelings about PTSD, tried to remove it from my memory, Bereavement and Make you want to run away were a candidate for the final

model. But only had waves of strong feelings about it and Bereavement were significantly associated with PTSD in multivariable logistic regression. This study showed that having felt strong wave about displacement is three times (AOR=3.23, 95% CI: 1.19-8.32) more likely to be exposed to PTSD than not. Those with non bereavement is 42% (AOR=0.58, 95% CI: 0.46-0.96) less likely to contract PTSD compared to their counter parts.

4.4-Recommendation

1. Post traumatic stress disorder was common among internally displaced people from Ethiosomali region and settled in Adama city. Above all those associated factors worsen the existing condition. Though this study recommend the need of creating awareness for health extension workers in the study area to combat the disturbance that participate families of survivor.
2. There is a considerable burden of PTSD among IDP peoples in Adama city. PTSD was associated with both war trauma experiences and negative life events in a response manner. PTSD had a tendency for co morbidity with major depressive disorder. We recommend inclusion of psycho-trauma treatment services including treatment of PTSD and depression in the treatment care services in post-conflict communities. Town health Beuro must prepare training day and arrange treatment center to react up on procedure.
3. Researcher identifies low level of education in his analysis among internal ethnio conflict survivor. So establishment of school in the area and other similar facilities are mandatory.
4. More research on population level prevalence is needed to determine the burden of associated factors and PTSD in Adama city and to identify acceptable and feasible approaches to address this burden given limited mental healthcare resources

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References

1. Kaplan &Sadock's [2007]. Concise textbook of clinical psychiatry, 3rd edition, Newyork
2. American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders (5th ed). Arlington, VA: American Psychiatric Publishing. pp. 271–280. ISBN 978-0-89042-555-8
3. Bisson, JI; Cosgrove, S; Lewis, C; Robert, NP (26 November 2015). "Post-traumatic stress disorder", BMJ (Clinical research ed) 351: h6161. doi:10.1136/bmj.h6161. PMC 4663500. PMID 26611143
4. National Institute of Mental Health. February [2016] Archived from the original on 9 March 2016, Retrieved 10 March 2016
5. Carlstedt, Roland (2009). Handbook of Integrative Clinical Psychology, Psychiatry, and Behavioral Medicine Perspectives, Practices, and Research, New York: Springer Pub. Co. p. 353, ISBN 9780826110954
6. Herman, Judith (2015). Trauma and Recovery: The Aftermath of Violence—From Domestic Abuse to Political Terror, Basic Books. Page 9, ISBN 9780465098736
7. Klykylo, William M. (2012). Clinical child psychiatry (3. ed.). Chichester, West Sussex, UK: John Wiley & Sons. p. Chapter 15. ISBN 9781119967705
8. Mayo, [2019] post traumatic stress disorder. How can you help a love one, CDT
9. Diagnostic and Statistical Manual of Mental Disorders, (DSM-5)[2003], American Psychiatric Publishing, USA.
10. National Institute of Mental Health Office of Science Policy, Planning, and Communications 6001 Executive Boulevard, oom 6200, MSC 9663 Bethesda, MD 20892-9663, Last Revised: May 2019
11. .Rutherford A, Zwi AB, Grove NJ, Butchart A. Violence: a priority for public health? J Epidemiol Community Health. 2007;61:764–70. doi: 10.1136/jech.2006.049072. [PMC free article][PubMed] [Cross Ref]
12. Caetano R, Cunradi C. Intimate partner violence and depression among Whites, Blacks, and Hispanics. Annals of Epidemiology. 2003;13:661–5. doi: 10.1016/j.annepidem.2003.09.002.[PubMed] [Cross Ref]
13. Breslau N, Kessler RC, Chilcoat HD, Schultz LR, Davis GC, Andreski P. Trauma and Posttraumatic Stress Disorder in the Community: The 1996 Detroit Area Survey of Trauma. Archives of General Psychiatry. 1998;55:626–32. doi: 10.1001/archpsyc.55.7.626. [PubMed] [Cross Ref]
14. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National

Comorbidity Survey Replication. Arch Gen Psychiatry. 2005;62:593–602. doi: 10.1001/archpsyc.62.6.593. [PubMed] [Cross Ref]

15. De Jong JT, Komproe IH, Van OM, El MM, Araya M, Khaled N, Put W van de, Somasundaram D. Lifetime events and posttraumatic stress disorder in 4 postconflict settings. JAMA. 2001;286:555–62. doi: 10.1001/jama.286.5.555. [PubMed] [Cross Ref]
16. Sintayehu Asnakew, Shegaye Shumet, Worknesh Ginbare, Getasew Legas, Kalkidan Haile [2019]. Prevalence of post-traumatic stress disorder and associated factors among Koshe landslide survivors, Addis Ababa, Ethiopia: a community-based, cross-sectional study, Ethiopia.
17. Kalkidan Yohannes, Abebaw Gebeyehu, Tewodros Adera, Getinet Ayano & Wubalem Fekadu, 2018. Prevalence and correlates of post-traumatic stress disorder among survivors of road traffic accidents in Ethiopia.
18. Antonia Barke, el, [2018]. Prevalence of PTSD, Depression, and anxiety among abused and neglected adolescent in charitable children institution in Nairobi, Kenya.
19. Onab A Sulfab [2018]. Prevalence of PTSD among Sudanese armed force veterans, Kahrtoum, Sudan.
20. Eugene, el [2015]. Prevalence and factors associated with Posttraumatic Stress Disorder seven years after the conflict in three districts in northern Uganda.
21. Christopher, el [2014]. Prevalence of Violence and Symptoms of Post-Traumatic Stress Disorder among Victims of Ethno-Religious Conflict in Jos, Nigeria