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Traumatic events consequences on the Georgian internally displaced person's mental health: an epidemiological national survey

V. Kovess-Masfety^{1,2*}  and Nino Makhashvili^{3*}

Abstract

Background Georgia has experienced large waves of internal displacement and has one of the highest prevalence of internal displacement in the world, with IDPs representing about 7.5% of the population. Internal Displacement of Persons (IDP) carry multiple traumas that could affect the displaced populations.

Objective To evaluate IDPs traumas and its mental health associations as compared to the non-displaced persons (non-IDPs) in Georgia.

Methods This study employed a cross-sectional survey using representative sampling of IDPs and a randomized sample of non-IDPs totalling 1765 non-displaced people and 203 IDPs. Interviews were conducted face to face using ITQ (International Trauma Questionnaire) for PTSD, Composite Diagnostic Interview (CIDI) short form for anxious and depressive disorders, questions on suicidal behaviour; ASSIST for addictions, MH5 from SF36 for psychological distress.

Results IDPs and non IDPs populations differed on many aspects: IDPs were older, retired, from rural areas with lower education than non IDPs. Exposure to multiple traumatic events was higher in IDPs: 22.08% reported 4 or more events versus 1.27% for non IDPs. IDPs had much higher PTSD impairing symptoms from ITQ than non-IDPs (8.59% versus 1.32%). They suffered more from psychological distress and anxiety disorders but have equal prevalence of depressive disorders and moderate or severe risk of addictions. IDPs have lower prevalence of suicidal thoughts than non IDPs. Once controlled for most of the sociodemographic factors, IDPs remained at very higher risk as compared to non-IDPs for PTSD symptoms with impairment (OR = 12.12, GAD OR = 3.38, and panic anxiety OR = 1.72).

Conclusions Georgian IDPs are more likely to suffer from PTSD and anxious disorders than non-IDPs. Special attention should be paid to the population experiencing internally displacement securing their surrounding and providing psychosocial support.

Keywords War-affected displaced population –, IDPs Internally Displaced Persons, PTSD and other mental disorders, Long-term consequences of war, Georgia, Republic of

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Background

Due to the rising of territorial conflicts all around the world and more recently in the Eastern European region, an increasing number of persons are at risk to forced displacement within their home country. Internal Displacement of Persons (IDP) always happened in a context of conflict and violence and therefore can have profound mental health impacts on the persons. Understanding the complex interplay of trauma, dislocation, and adjustment in this intra country migration process is an essential foundation for a trauma-informed perspective (Pumariega et al. [28]). However, a recent review (Cantor et al. [5]) noted a broader gap in research on displaced persons, especially in low- and middle-income countries (LMICs).

Indeed, comparison studies on such internally displaced populations with the local non displaced are very rare, though evidence suggests the prevalence of mental health disorders appears higher among IDPs than non-IDPs: the few available stemmed from the Sri-Lanka's Northern province - Jaffna District: the displaced participants were more likely to report symptoms of PTSD anxiety and depression compared with long-term residents (Husain et al. [14]) and from Columbia, where PTSD was 5.1 times higher among IDPs than in general population (Lagos-Gallego et al. [20]).

Georgia, a former soviet Caucasian country, has experienced large waves of internal displacement and has one of the highest prevalence of internal displacement relative to its overall population in the world, with IDPs representing about 7,5% of the population. The Georgian population displacements first took place in the beginning of the 1990s due to Abkhazia conflict, followed by the displacement resulting of the Russian Georgian war of 2008. As a consequence, 20% of the territory of Georgia has been occupied; in 2018, there were 277,398 registered Internally Displaced Persons - IDPs (89,169 families) (The Ministry of Internally Displaced Persons from the Occupied Territories) [32].

To this day, they live in protracted displacement as there is no progress in terms of the implementation of their right to return in safety to their places of origin. The Government of Georgia provides IDPs with long-term accommodation. However, many IDPs are in adjacent areas of the border zones of their former residence or in major cities (77% of IDPs live in urban areas due to the housing and economic opportunities). This means that most of them originating from rural areas were not able to maintain their traditional livelihoods. In addition, 38% still inhabit collective centres where living conditions are substandard. IDPs who still live in non-rehabilitated collective centres away from the capital are one of the most marginalized sub-groups. The number of IDPs is growing (in comparison, the number of IDPs in 2015 was 267,000

persons and represents almost 4% growth from 2015 to 2022). This growth of IDPs is related to the growth of birth rate in the IDPs families (among them, in mixed families), the census absence on the places of temporary registration and the fact that IDP status can be inherited.

In 2011, a cross-sectional survey compared patterns of mental disorders and their influence on disability between IDPs and returnees (i.e., previous IDPs) in the Republic of Georgia and revealed high levels of symptoms of mental disorders (Makhashvili et al. [22]). However, no study in Georgia has compared the mental health outcomes of IDPs with the general Georgian population (i.e. non-displaced Georgians).

The present study aimed at comparing the mental health situation of the IDPs to the one of the general Georgian population (non-IDPs) through a large national population survey using diagnostic epidemiological instruments to cover the most common mental health disorders.

Methodology

A cross-sectional survey was conducted using multi-stage sampling of IDPs and non-IDPs. 6 geographic clusters were selected. Based on expected prevalence, it was proposed to approach 1950 households taking into consideration the non-response rate around 14%. For the general Georgian population, the sampling Frame was based on the 2014 General Population Census data for Georgia.¹ Primary Sampling Units were used, Geographic Clusters selected by the diversity principle that is to maximise the diversity of territories. The Secondary Sampling Units were the administrative units (cities and villages) selected by the Probability Proportional to Size (PPS) approach: 65 Sampling Units were chosen in total. The tertiary sampling units were households. 30 households were selected randomly from each 65 SSUs. Kish methodology was used for selection of study participants from the selected household, taking in account the household size and imposing to the interviewer a randomised person into the household. Allocation of the 65 sampling units to the selected clusters, based on the Probability Proportional to Size (PPS) approach, was used. This brought a sample of 1765 non-displaced people.

For the IDP population, it was assumed that by selecting the territories where they were living densely, the sample will be large enough, but an additional sample had to be gathered months later to reach 203 IDP and to allow some comparisons. IDP population samples came mainly from Samegrelo, Shida Kartli regions and Tbilisi – the capital city. Indeed, according to the statistics: 32% of the IDP population lives in Samegrelo, 6% in Shida

¹ <https://www.geostat.ge/en/modules/categories/41/population>.

Kartli and 38% in Tbilisi¹. Accordingly, the percentage of IDPs in the study reached 11.5% that is more than their numbers in general population (7.52%).

All participants were asked to sign an informed consent form and those who refused to sign it were excluded from the study. Ethic committee approval was obtained from the Institutional Review Board (23/09/2019). Data were collected from the 23 of October 2019 to the 17 of February 2020. Refusal rate was 13,4% as an average. All interviews were conducted face to face by trained interviewers in Georgian language.

Instruments

Questionnaires were similar for the general and IDP populations: it contained questions on gender, age, education level, employment situation, marital situation, place of birth, ethnicity and considering him or herself as an internally displaced person, plus some questions on physical health problems.

Psychological distress was evaluated through SF-36, a widely used quality of life instrument that assesses eight health concepts among them the MH5 which measures last-month psychological distress in five questions. This short scale produces a score 0 to 100 (Jenkinson et al. [16]); the lowest corresponds to the most distressed and the higher to the least, for which a threshold of 55 is available to classify people in two categories (distressed or not) (Korkeila et al. [19]); in this study the Cronbach alpha of the MH5 was 0.81.

Mental health diagnoses were measured through the Composite International Diagnostic Interview - Short Form (CIDI SF), developed by Kessler et al. for the National Canadian survey and validated in different European languages (Pez et al. [27]), 3 sections of the CIDI Short Form were selected to measure: 12-months prevalence of: major depressive episode, mania, generalized anxiety, plus some questions on lifetime suicidal behaviour.

PTSD symptoms were measured by ITQ (International Trauma Questionnaire) (Cloitre et al. [8]; Hyland et al. [15]) for each person who declared having experienced any lifetime “extremely traumatic” or “life-threatening event”. ITQ questions have been translated-back-translated-refined and used by Georgian clinicians during recent years (Makhashvili et al. [22]). Only the ITQ PTSD questions were used (6 questions) distributed across the three symptoms clusters (re-experiencing in the here and now, avoidance of traumatic reminders and a sense of threat), plus the 3 questions on impairment. The diagnostic scoring was applied as proposed by the author (Cloitre et al. [8]) to produce ICD11 PTSD. The Cronbach alpha of this scale was 0.90.

The Sheehan Disability Scale (SDS), developed to assess functional impairment in the three inter-related domains:

work/schools, social and family life was added, following diagnostic assessment as in WHO World Mental Health Survey Initiative (Wang et al. [33]) in order to evaluate the impairment and complete diagnostic criteria.

Psychotic experiences were measured by the CIDI psychosis module on 6 PE types: 2 related to HEs (visual and auditory hallucinations) and 4 related to DEs (2 bizarre delusional items - thought insertion and/or withdrawal and mind control and/or passivity) and 2 paranoid delusional items (ideas of reference and plot to harm and/or follow). Additional questions allowed to measure their frequency and last month prevalence (McGrath et al. [23]).

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) WHO [34] was used to detect use and related problems with substances. It has already been used in Georgia and investigates addictions during last 3 months. Questions are asked about nine substances: alcohol, tobacco, cannabis, cocaine, amphetamines, inhalants, sedatives, hallucinogens, opioids and others to be specified, and allows three categories: low or none, moderate, high, which correspond to risks for health and other problems. These three levels also correspond to three needs for intervention: no intervention, brief intervention, and more intensive treatment.

This developed questionnaire was translated into the Georgian language with the support of a Georgian psychiatrist, familiar with classifications and backtranslated and adjusted. Field workers underwent the training in applying the instrument.

Statistics

Analyses were done using STATA/IC 15; Pearson chi square and logistic regression standard model were used to produce the tables combining IDP and non-IDP samples. To compare trauma number on PTSD, a stratified analysis was done IDP/non-IDP. The gender/age sample composition slightly differs from the Georgian expected composition; to correct the difference, a weight has been calculated and applied; the analyses are presented weighted.

Results

The IDP sample largely differed from the general population: they were more women in the IDP samples than in the general population: 66.01% versus 56.60% ($p=0.01$), IDP were older than non-IDP: mean age 56.93 versus 47.60; IDP being older than non-IDP were more often retired, widowed, mostly living in village and less educated than the non-IDP (Table 1).

Exposure to traumatic events and PTSD

IDPs declared to have ever experienced “a very traumatic event” more likely than non-IDPs: 45.38% versus 18.68%

Table 1 Comparisons IDP/non-IDP

%		Non IDP	IDP	Total	P
Women		56.60	66.01	57.57	0.010
Mean age (95% CI)		47.60 (0.40)	56.93 (0.02)	48.56 (0.38)	< 0.0001
Employment statute	Employed	48.18	39.8	47.33	< 0.0001
	Self-employed	16.98	17.35	17.02	
	Unemployed	13.92	13.78	13.91	
	Retired	15.94	26.53	17.02	
	Student	3.58	2.04	3.43	
	Can't work	0.46	0.51	0.47	
	Other	0.92	0	0.83	
Place of Birth	City	36.01	13.3	33.61	< 0.0001
	Town	41.65	25.62	39.96	
	Village	22.34	61.08	26.43	
Education	Primary or less	2.98	6.9	3.35	0.003
	Secondary	74.96	78.74	75.31	
	University	22.06	14.37	21.34	
Marital statute	Single	24.57	19.7	24.04	0.001
	Married	54.73	51.72	54.41	
	Divorced/separated	9.34	7.39	9.13	
	Widowed	11.36	21.18	12.42	
Total		1,681	203	1,884	

Table 2 Exposure to traumatic events IDP/no-IDP (n = 1919) (weighted)

Exposure to traumatic events			
Number of events	non-IDP	IDP	total
0	81.80%	55.88%	79.24%
< 4	16.93%	22.04%	17.44%
=>4	1.27%	22.08%	3.32%

P < 0.00001

Table 3 PTSD prevalence IDP/non-IDP (weighted) by number of events P < 0.00001

PTSD ITQ symptoms			
Number of events	non-IDP 1589	IDP 177	Total 1766
0	0.00%	0.00%	0.00%
< 4	8.93%	24.20%	11.56%
=>4	23.83%	18.44%	20.62%
Total	1.32% (0.88-2.00)	8.59% (5.25-13.76)	2.00% (1.46-2.74)

Table 4 Other mental health disorders IDP/non-IDP comparisons (weighted)

	Psychological Distress	MDE (with-out imp)*	MDE*	GAD*	Panic anxiety**	Mod/Severe Substances	Psychotic Experiences**	Suicidal Thoughts**
Non- IDP	34.45%	6.47%	3.20%	2.02%	14.17%	12.58%	5.02%	15.00%
IDP	53.78%	6.72%	2.68%	4.64%	19.61%	10.84%	2.00%	2.51%
Total	36.27%	6.49%	3.15%	2.27%	14.70%	12.41%	4.73%	13.82%
P	< 0.0001	0.89	0.68	0.017	0.04	0.50	0.06	< 0.0001

Bold significant differences Psychological distress One month, Substances 3 months * one year ** Life time ***

(p < 0.0001); moreover, IDPs were exposed to much more events: 22.08% of them declared four or more event versus 1.27% in the non-IDP persons. (Table 2)

8.59% of the IDPs had met one-month PTSD prevalence according to ITQ criteria including impairment versus 1.32% in the non-IDPs (p < 0.00001). In addition, the rate of PTSD seemed different by region: for the IDPs PTSD rate were 2.15% in Samegrelo, 12.86% in Shida Kartli and 31.25% for those living in Tbilisi (p < 0.00001).

When looking separately at the PTSD rates by number of events in each of the two populations, IDPs reported a much higher rate of PTSD than non-IDPs for 1 to 3 events category, whereas for four or more events, the rates were close. (Table 3)

Other mental health disorders

IDPs were more likely to suffer from psychological distress and anxiety disorders than non-IDPs, meeting criteria of general anxiety and panic anxiety. On the reverse, IDPs seemed to be protected against suicidal thoughts and psychotic experiences as compared to non-IDPs, although this latter difference was not reaching significance. There were no differences between IDP and Non-IDPs concerning Major Depression Episode - MDE nor the MDE without impairment as for moderate/severe risk for addiction. (see Table 4). In addition, it should be noted that on 100 persons suffering from PTSD: 81.35% had panic anxiety, 48.49% generalized anxiety disorder, 52.09% major depressive episode (without impairment), 39.52% if this criterion is included and 22% were at risk for addiction: moderate or severe.

On the pooled sample (IDPs and non-IDPs) controlling for age, gender and place of birth (city/town/village) and for most the social factors, being IDP was a risk for psychological distress OR = 1.81 (1.25-2.64); being aged, divorced, unemployed or retired were additional risks whereas, being originated from a town or village versus city, having secondary or more education and being married were protective.

To be IDP was very much associated with PTSD disorder as evaluated by ITQ: OR = 12.12 (4.27-34.41); women were much more at risk than men, OR = 3.06 (1.33-7.06), to be separated or divorced was an additional risk as compared to any other matrimonial statute, as to be retired.

Table 5 Factors associated with mental health disorders non-IDP and IDPs (weighted, $n = 1,704$)

AOR	Psychological Distress	Suicidal Thoughts	MDE	Addiction Mod/sev	GAD*	Panic Anxiety	PTSD/ITQ* (1,584)
W/M	1.02	0.93	1.22	0.24	1.73	1.27	3.06
Age							
18-29 Ref							
30-59	2.01	0.88	2.20	1.63		1.48	
=>60	2.61	1.02	2.22	1.63		2.15	
IDP/non-IDP	1.81	0.10	1.21	0.98	3.38	1.72	12.12
Place of birth							
City Ref							
Town	0.45	0.39	0.59	0.79	0.32	0.35	0.59
Village	0.76	0.69	0.36	0.93	0.47	0.28	0.17
Education							
Primary Ref							
Secondary	0.53	0.40	0.40	1.11	0.38	0.46	0.96
University	0.30	0.27	0.36	0.75	0.42	0.45	0.99
Matrimonial Status							
Single Ref							
Married	0.63	0.59	0.63	0.68	2.88	1.06	7.43
Divorced/Separated	2.76	1.74	1.74	1.63	12.00	2.34	23.18
Widowed	1.25	0.65	1.87	0.87	5.61	1.57	10.54
Employment Status							
Employed Ref							
Self-employed	1.19	1.17	1.57	1.99	1.49	1.18	2.22
Unemployed	1.95	2.23	2.70	2.31	2.48	2.30	1.80
Retired	1.99	1.35	1.56	0.63	2.81	1.31	3.76
Other	0.80	1.16	1.72	1.10	3.66	1.03	2.53

Being IDP was also a risk for anxiety disorders; GAD OR=3.38 (1.32–8.70) and panic anxiety, OR=1.72 (1.06–2.78).

IDP statute protected against suicidal thoughts, OR=0.10 (0.03–0.32), as being born in town and village versus city, being married versus single and being educated versus primary school level or below. On the reverse, being divorced and being unemployed were additional risks for suicidal thoughts. Risks and protective social factors for major depressive episode, with and without impairment, were like those for suicidal thoughts apart from being IDP which is not protective (Table 5).

Discussion

IDPs were more exposed to very traumatic events than non-IDP and to more events: 22.08% of them declared four or more event versus 1.27% in the non-IDP persons. This difference in potentially traumatic exposure was startling – IDPs have reported 2.5 more often than non-IDPs a lifetime very traumatic event and almost 17–18 times exposure to 4 events and more; a number that has been described as a risk factor for PTSD (Karam et al. [17]). As expected, they have higher rate of PTSD: 8.59% of the IDPs had met one-month PTSD prevalence according to ITQ CIM 11 criteria versus 1.32% of the non-IDPs.

In addition, IDPs mental health was somewhat lower than the general non-IDPs: IDPs exhibited higher psychological distress and anxiety disorders (generalized anxiety and panic anxiety); at risk substances use. Major depressive disorders were not different, whereas suicidal thoughts were less frequent than in non-IDP. These differences persisted once controlling by socio demographic variables. Beside the IDPs statute risks, they cumulated additional risk factors such as originating from the countryside as compared from city, lower education and more often widowed which increased risks for some of the mental health problems. This indicates that even if the Georgian non-IDPs show an increase in the incidence and prevalence of mental disorders (Murthy and Lakshminarayana [26]). Still, the experience of displacement embodies much higher risk of traumatization and mental ill health.

The IDP PTSD (CIM 11) as evaluated by ITQ was lower than in the previous study concerning displaced persons in Georgia: 27.1% for the IDPs displaced in the 1990s, 22.9% for those before 2008, and 17% for returnees (Makhashvili et al. [22]), while in the current study the prevalence rates were 8.59% using identical definitions. These differences could be explained by our mode of ITQ application: following the definition of PTSD, our first step was to ensure that the person had declared “to ever experienced any extremely traumatic or life-threatening

event,” which fits the description of PTSD. In the above study, the ITQ questions were administered to any person declaring a “stressful event, “ not restricting ITQ assessment to extremely severe and life-threatening event. This may have inflated the PTSD prevalence.

It was a surprise that Samegrelo IDPs experienced less PTSD symptoms than in other regions as they were mostly displaced in the 90s and their rates were much higher in the previous survey, as mentioned above - compared to ‘newly’ displaced in 2008, IDPs. This decrease may be due to the governmental policy and measures on durable housing, implemented since 2012, in order to improve the housing conditions of displaced persons by providing relevant funds for purchasing them (Bank [2]).

Findings of higher rates of PTSD symptoms among IDPs compared to local population of Georgia suggests the vulnerability of this war-affected big group even after the decades of displacement, both by rates and severity of exposure to traumatic events and consequent traumatic conditions. Some international studies indicated that mental health disorders due to internal displacement can persist for decades, even after the conflict has resolved (Comtesse et al. [9]; Husain et al. [14]; Makhashvili et al. [22]). The few long-term follow-up studies (up to ten years) were limited to specific psychological symptoms or high-income Western settings (Carlsson et al. [6]; Scott et al. [30]). Studies also highlighted the long-term and inter-generational effects of internal displacement on mental health (Daoud et al. [10]; Husain et al. [14]) (Flink et al. [11]). Prolonged displacement, continuing adversity and older age have been shown to be associated with decreased resilience, in turn linked to mental ill health (Siriwardhana and Stewart [31]). For those IDPs in war-affected setting of Nigeria, being aged 18–29 years was a protective factor, with those in this age group being less likely to experience symptoms of anxiety and stress (Salihu et al. [29]), which is replicated in our study, as it demonstrated that older persons are more likely to be distressed and anxious than younger persons. Our findings support most of above mentioned conclusions since, for what seemed a limited number of events (1 to 3), IDPs had a higher rate of PTSD than non-IDPs.

The prevalence of IDPs depression and anxiety symptoms obtained in current study were lower compared to other data, but also to those reported in the previous large-scale survey of IDP in Georgia (Chikovani et al. [7]). In this latter study conducted in 2011 close to the second 2008 displacement, the prevalence of depression and anxiety in IDPs were 14.0% and 10.4%. However, these findings are difficult to compare with our study results due to discrepancies in instruments (PHQ9 and GAD7 versus CIDI) and sampled populations. We could not disregard the possibility of a decrease of symptoms with the time passing and some adaptations to the situation. Still,

both studies found the common determinants for the worst mental health for IDPs as older age, female gender, and high exposure to traumatic events.

In Sri Lanka (district of Vavuniya), prevalence of mild depression was highest within the IDP group (10.5%), followed by host communities (5.8%) (Burns et al. [4]). Once adjusted for potential confounders, the overall association between displacement status and depression did not vary remarkably between these groups. No association was shown between displacement status and mental health status or chronic disease status. This corresponds to findings of our study where the IDP status was not a risk for depressive disorders nor psychotic experiences. Nevertheless, depression has been demonstrated to be highly comorbid with post-traumatic stress disorder as half of people with PTSD also suffer from Major Depressive Disorder (Flory and Yehuda [12]). This association, surprisingly, was not found in our study indicating a need of more thorough research, using additional instruments. The same is true for the investigating further the suicidal ideation and thoughts among IDPs, as the recent systematic review (Akbar et al. [1]) summarising data of 20 studies, found a strong association between PTSD and suicidal ideation (RR = 2.91, 95% CI: 2.22–3.82).

Low suicidal ideas is an exception to the lower mental health state of IDPs as compared to non-IDPs; since suicidal ideas and negative life events have been linked in many countries (Borges et al. [3]) IDP should have more suicidal ideas than non-IDP. However, IDPs were more likely aged female than non-IDPs; these profiles may be more religious in a country where 83.4% are Orthodox Christian, which has been related to a lower frequency of suicidal thoughts (Lawrence et al. [21]).

Another important factor – urbanisation – has been revealed by our findings. Urbanicity was linked to decreased suicide rates, for instance among Chinese an increase in urbanicity by 1% was associated with a 2.2% decrease in suicide rates ($p < 0.001$) (Harford et al. [13]). In the United States, a study found that suicide rates across all urbanization levels increased during the period 1999–2015, the gap in rates between less urban and more urban areas widened over time, thus supporting the evidence that geographic disparities in suicide rates might reflect suicide risk factors known to be prevalent in less urbanized areas, such as limited access to mental health care, social isolation, etc. (Kegler et al. [18]). In our study, rural setting was linked to increased rates of suicidal thoughts, confirming earlier findings.

Limitations

IDPs were more difficult to reach than non-IDPs for whom we had an excellent participation rate. In this survey, IDPs were mainly from two regions: half of the sample from Samegrelo where 32% of the IDPs lived and the

other half from Shida Kartli where 6% of the IDP lived with only a few from Tbilisi where 38% of the IDP population resided. Since the total number of IDP was not very high, the representativity of the IDP population, especially the Tbilisi one, is not warranted.

ITQ is not a clinical instrument to measure PTSD, but a screening ICD11 measure; however, it allows IDP/Non IDP meaningful comparisons. Comparisons were also possible for the other mental health measures, but we could not eliminate some mental health terms that could not completely fit the Georgian culture and the denial concerning alcohol and drug consumptions, which may underestimate those problems.

Conclusion

Georgian IDPs are more vulnerable than the non IDPs population: they are older, more likely widowed, more often from rural origin with lower level of education and lower income and their exposure to multiple traumas is higher. WHO (WHO [24]) states that the impact of stressors can be buffered by protective factors such as access to employment and services, social support, proficiency in the language of the host country, and family reunification. Earlier findings on Georgian war-affected populations, when returning to original, even unsafe, villages was associated with less prevalence of mental ill health (Makhashvili et al. [22]). The recent Colombian study (Monsalve et al. [25]) showed that in similarly low socio-economic stratum, better mental health of non-IDPs versus IDPs was due to a more protected environment, with less exposure to violence and stress. They recommended to take measures for a better protection of the displaced community, improve their access to the job market, offer different leisure activities and facilitate public transport.

In addition, a mental health dedicated policy is then necessary to support them and avoid the replication of traumatic scenarios to the next generation. Still our findings indicate that prevalence rate of PTSD in IDPs is approximatively six times more than in non-IDP local population, indicating at a need for strong trauma-informed policies geared towards the IDP populations.

Abbreviations

ASSIST	Alcohol, Smoking and Substance Involvement Screening Test
CIDI	Composite International Diagnostic Interview
DSM	Diagnostic and Statistical Manual
ICD	International Classification of Disease
IDP	Internally Displaced Person
ITQ	International Trauma Questionnaire
GAD	General Anxiety Disorder
MDE	Major Depressive Disorder
PTSD	Post-Traumatic Stress Disorder
OR	Odd ratio
WHO	World Health Organization
WMH	World Mental Health

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Author contributions

VKM design the survey, collected the data, analysed the data and wrote the draft. NM completed the draft and edited the paper.

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Data availability

The datasets used and/or analysed during the current study available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

Ethics committee approval was obtained from the Institutional Review Board of the Health Research Union (23/09/2019) who follows the Declaration of Helsinki (WMA, 1964) and its core standards, which are: respect for persons, beneficence, and justice, emphasizing informed consent, the need for scientifically sound research, and the principle of risk minimization. All participants were then asked to sign an Informed Consent form. Participants who refused to sign were excluded from the study.

Consent for publication

Authors consent for publication.

Competing interests

The authors declare no competing interests.

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