BMJ Global Health

Mental health of older adults in humanitarian settings in low- and middle-income countries: a retrospective analysis from Médecins sans Frontières-supported mental health services, 2019–2024

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To cite: van Boetzelaer E, Keating P, Wasara N, *et al*. Mental health of older adults in humanitarian settings in low- and middle-income countries: a retrospective analysis from Médecins sans Frontières-supported mental health services, 2019–2024. *BMJ Glob Health* 2025;**10**:e019821. doi:10.1136/bmjgh-2025-019821

Handling editor Seema Biswas

► Additional supplemental material is published online only. To view, please visit the journal online (https://doi.org/10.1136/bmjgh-2025-019821).

Received 20 March 2025
Accepted 29 May 2025

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ABSTRACT

Background More complex humanitarian emergencies have a profound impact on a rapidly growing ageing population. There are few data available on the mental health conditions of older people in humanitarian settings. This study describes mental health symptoms among older adults to inform the development of age-adapted and gender-adapted mental health services in humanitarian contexts.

Methods This multicountry study includes data from adults aged 50 years or older that accessed Médecins sans Frontières-supported mental health services in humanitarian settings across 20 countries between July 2019 and July 2024. Mental health symptoms and precipitating events were compared by age, sex and displacement status using regression analyses. Analyses were mutually adjusted for sex and displacement status to account for confounding.

Findings Data of 21 926 adults were included. Older adults presented at mental health services with anxiety-related symptoms (36%), physical complaints (33%) and mood-related symptoms (18%). Compared with men, women had higher odds of reporting mood-related symptoms (adjusted Odds R=1.60; 95% CI 1.48 to 1.73), and precipitating events related to sexual trauma or abuse (aOR=9.98; 95% CI 8.11 to 12.40). Compared with non-displaced older adults, displaced older adults had higher odds of reporting neuro-psychiatric-related (aOR=2.35; 95% CI 2.07 to 2.66), mood-related (aOR=2.08; 95% CI 1.93 to 2.24), ageing-related (aOR=1.47; 95% CI 1.15 to 1.86) and anxiety-related (aOR=1.42; 95% CI 1.33 to 1.51) symptoms, and precipitating events related to sexual trauma or abuse, abuse during detention and violence, with variations depending on sex.

Interpretation Older adults in humanitarian settings experience diverse mental health symptoms, with critical differences by sex and displacement status. Women were more likely than men to present with mood-related symptoms and to report experiences of sexual trauma and abuse. Displacement significantly heightens exposure to violence and mental health presentations for both women and men. These findings underscore the urgent need to strengthen protection systems and ensure access to gender-sensitive mental health interventions for older populations.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Older adults in humanitarian settings are not a priority in humanitarian mental health research and programming. The limited data available hinder the design of appropriate services and advocacy for this population.

WHAT THIS STUDY ADDS

⇒ This is the largest known multicountry analysis of mental health among older adults in humanitarian crises. It reveals stark sex-related and displacement-related disparities, with strong associations between mental health symptoms, displacement and experiences of sexual trauma and abuse. These findings draw attention to a neglected population and the complex, intersecting risks they face.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study calls for integrated approaches that address both psychological distress and its root causes, including sexual-based and gender-based violence. Research and programming must go beyond symptom management to ensure older adults—especially displaced women and men—receive protection and care that is accessible and tailored to their intersecting needs.

BACKGROUND

Globally, the percentage of the population aged 65 and above is expected to rise from 10% in 2022 to 16% in 2050.[1] Since 2020, the frequency, duration and severity of humanitarian emergencies such as conflict, environmental disaster, food insecurity or severe malnutrition, and disease outbreaks have multiplied, leaving an estimated 363 million adults in need of humanitarian assistance in 2023.[2] The continued increase of more complex and protracted humanitarian emergencies will have a profound impact on a rapidly growing ageing population.[3]

In general, humanitarian crises increase the risk of developing or exacerbating pre-existing mental health conditions, including depression, post-traumatic stress disorder, and alcohol and substance use conditions.[4] This is exacerbated for older adults who experience prolonged exposure to conflict and insecurity, loss of independence and autonomy, isolation, grief, and the change in power, authority and role in the community following (forced) displacement.[5] There are few data available on the mental health conditions of adults aged 50 years or older in humanitarian settings in low- and middle-income countries (LMIC).[6] This directly results in a reduced visibility of older adults' mental health needs and negatively impacts the prioritisation or appropriateness of the support available to them.[7] In addition, pre-existing mental health conditions put older adults at an increased risk of other adverse health outcomes in humanitarian settings and vice versa.[8]

Older adults are a heterogeneous group and include adults of different ages, gender, ethnicity, sexual orientation, socioeconomic status, displacement status and disability status. Intersectionality is a framework that seeks to understand the interactions between multiple social identities and acknowledge that the effect of these social determinants on (mental) health is interconnected, extending beyond the sum of their individual effects.[9 10] We aimed to describe mental health symptoms and precipitating events associated with these symptoms among adults aged 50 years or older who accessed mental health services in humanitarian settings in LMICs that were supported by Médecins sans Frontières (MSF). This study aimed to describe mental health symptoms among older adults, disaggregated by sex, age and displacement status, to inform the development of age-adapted and gender-adapted mental health services in humanitarian contexts.

METHODS

Inclusion and exclusion criteria

The study population consisted of all adults aged 50 years and older that accessed MSF-supported mental health services, between July 2019 and July 2024 in humanitarian settings in 20 LMICs across all World Bank regions. For this analysis, 'older adult' was defined as a person aged 50 years or older, in line with the definition by the WHO and the United Nations High Commissioner for Refugees.[11 12] All data were collected in 'complex humanitarian settings' in which a series of events (eg, armed conflict, environmental disaster, epidemic, famine) has resulted in a critical threat to the health, safety and security of a community or other large group of people.[13]

Outcomes and independent variables

Each mental health symptom and precipitating event was considered as a dependent outcome variable. This analysis included seven categories of mental health symptoms, which were standardised across MSF-supported mental health services: anxiety-related symptoms, mood-related symptoms, physical complaints, behaviour-related symptoms, neuro-psychiatric-related symptoms, problems related to social functioning and age-related symptoms. Precipitating event was defined as a specific event that causes or triggers the onset of a mental health symptom, for example, events related to violence or displacement. A complete list of definitions of mental health symptoms and precipitating events, which are standardised across MSF-supported mental health services, can be found in online supplemental annex 1. Main symptoms and precipitating events were recorded on the client file during their first visit.

Sex, age group and displacement status were considered independent variables. All ages were self-reported and were categorised by 10-year increments (50–59, 60–69, 70–79, 80+). Sex was self-reported and could be male, female or unknown/unspecified. As unknown/unspecified sex occurred for only five older adults, we did not include them in these analyses. Displacement status was defined as 'displaced' on the one hand, which captured adults who identified as an internally displaced person, refugee or asylum seeker, and 'non-displaced'.

Data sources and data collection

MSF provides medical assistance to people affected by conflict, epidemics, disasters or exclusion from healthcare in 75 countries. In many of these humanitarian settings, MSF offers a comprehensive package of Mental Health and Psychosocial Support services, including individual, family and group counselling, psychological care activities and care of patients with severe mental health disorders such as using psychotropic medications.[14] Data were collected as part of the routine monitoring of MSF-supported mental health services. When a person comes to MSF-supported mental health services, they first have an intake with a mental health counsellor. Topics covered in the initial assessment include the following: presenting complaint, history of mental disorders, family history of mental disorders, general health history, use of alcohol and other substances, social situation and social support, strengths and other resources, personal history, mental state. Screening and monitoring tools that are used include the General Anxiety Disorder-7 (GAD-7) for anxiety and the Patient Health Questionnaire-9 (PHQ-9) for depression.[15 16] Since 2019, all data were recorded on

the client file by mental health counsellors and subsequently entered in the District Health Information System 2 by data encoders.

Intersectionality lens

Among the older adults who were included in this analysis, we identified different subgroups. We compared the main mental health symptoms and precipitating events between these subgroups. Subgroups were identified based on the sex, age group and displacement status of the older adults. We compared mental health symptoms and precipitating events between older men and women; older women by 10-year increment age group; older men by 10-year increment age group; older displaced and non-displaced women; and older displaced and non-displaced men.

Statistical methods

All analyses were conducted using RStudio.[17] If independent variables were missing (age group, sex or residential status), the record was removed from data analysis. We did an available case analysis for the main mental health symptoms and precipitating events, where, if a record was missing the main mental health symptom, they would still be included in analyses related to precipitating events and vice versa.

In the descriptive analysis, variables were presented either as proportions or as medians with their range. Differences in proportions between sex or displacement status were measured using logistic regression, presenting an Odds Ratio (OR), 95% CI. Differences in proportions between age groups by decennial were measured using logistic regression presenting an OR for trend, 95% CI and p value. For differences in proportions between older women and men, we presented an adjusted OR (aOR) adjusting for age group and displacement status. For differences in proportions by sex and age group, we presented an aOR adjusting for displacement status. For differences in proportions by sex and displacement status, we presented an aOR adjusting for age group. Since this is a descriptive observational study, we present effect size (ORs and aORs) and 95% CIs as a measure of the magnitude of the effect to guide interpretation rather than p values.

Patient and public involvement

It was not appropriate or possible to involve patients or the public in the design, conduct, reporting or dissemination plans of our research.

RESULTS

Demographic characteristics

Over the course of 5 years (July 2019 to July 2024), 21 926 adults aged 50 years and older accessed MSF-supported mental health services across humanitarian settings in 20 countries. Among these, 13 112 were female (60%). More than half of older adults reported to be 50–59 years old at the time of consultation (53%), followed by 31% aged 60–69 years, 12% aged 70–79 years and 3.4% aged 80 years or older. The median age was 58.0 years (IQR: 52.0–65.0). Most older adults reported that they were not displaced (69%), while 31% identified as displaced (eg, an internally displaced person (IDP), refugee, asylum seeker or migrant). Almost half of older adults accessed MSF-supported mental health services in South Asia (48%), followed by sub-Saharan Africa (37%) and the Middle East and North Africa (11%) (table 1).

Main presenting symptoms and precipitating events reported by older adults

Older adults, irrespective of sex, most frequently presented at mental health services with anxiety-related symptoms (36%), physical complaints (33%) and mood-related symptoms (18%). Both women and men most frequently reported medical illness-related events precipitating their symptoms (women: 37%, men: 53%). This was followed in men by precipitating events related to socioeconomic functioning (eg, unemployment) (9.1%) and neuro-psychiatry (7.8%) (eg, psychosis). In women, this was followed by precipitating events related to sexual trauma or abuse (11%) and domestic discord and family violence (10%) (table 2).

Main presenting symptoms and precipitating events reported by sex

Compared with men, women had higher odds of presenting with mood-related symptoms (aOR=1.60; 95% CI 1.48 to 1.73) and problems with social functioning (aOR=1.25; 95% CI 1.05 to 1.49). Women had lower odds of presenting with physical complaints (aOR=0.80; 95% CI 0.75 to 0.85) and neuro-psychiatric-related symptoms (aOR=0.65; 95% CI 0.57 to 0.74).

Women had higher odds of reporting precipitating events related to sexual trauma and abuse (aOR=9.98; 95% CI 8.11 to 12.40), domestic discord and family violence (aOR=2.17; 95% CI 1.94 to 2.44) and loss or mourning (aOR=2.16; 95% CI 1.89 to 2.47). Women had lower odds of reporting precipitating events related to abuse during detention (aOR=0.31; 95% CI 0.24 to 0.40), medical illness (aOR=0.60; 95% CI 0.57 to 0.64) and socioeconomic functioning (aOR=0.65; 95% CI 0.59 to 0.73) (table 2).

Main presenting symptoms and precipitating events reported by age group

Comparing age groups (50–59 vs 60–69 vs 70–79 vs 80 years and older) shows that, for each change in age group, older adults had higher odds of reporting age-related symptoms (aOR=2.16; 95% CI 1.93 to 2.42) and physical complaints (aOR=1.86; 95% CI 1.79 to 1.93), while the odds of reporting symptoms related to mood (aOR=0.70; 95% CI 0.67 to 0.74), behaviour (aOR=0.67; 95% CI 0.60 to 0.75) and anxiety (aOR=0.65; 95% CI 0.63 to 0.68) were lower (online supplemental table 1). These patterns were similar in older women and men (tables 3 and 4).

Table 1 Demographic characteristics of adults aged 50 years and older at MSF-supported mental health services between July 2019 and July 2024

Characteristic	Total N=21 926*	Female N=13 112*	Male N=8814*
Age (years)	58.0 (52.0–65.0)	56.0 (50.0–60.0)	60.0 (53.0–66.0)
Age category			
50–59	11 682 (53%)	7619 (58%)	4063 (46%)
60–69	6898 (31%)	3952 (30%)	2946 (33%)
70–79	2603 (12%)	1215 (9.3%)	1388 (16%)
80+	743 (3.4%)	326 (2.5%)	417 (4.7%)
Sex			
Male	8814 (40%)		
Female	13 112 (60%)		
Displacement status			
Non-displaced	15 211 (69%)	8691 (66%)	6520 (74%)
Displaced (IDP/refugee/asylum seeker/migrant)	6715 (31%)	4421 (34%)	2294 (26%)
Region			
South Asia	10 532 (48%)	5769 (44%)	4763 (54%)
Sub-Saharan Africa	8011 (37%)	4887 (37%)	3124 (35%)
Middle East and North Africa	2414 (11%)	1703 (13%)	711 (8.1%)
East Asia and Pacific	577 (2.6%)	376 (2.9%)	201 (2.3%)
Latin America and Caribbean	390 (1.8%)	376 (2.9%)	14 (0.2%)
Europe and Central Asia	2 (<0.1%)	1 (<0.1%)	1 (<0.1%)

*Median (25%–75%); n (%).
IDP, internally displaced person; MSF, Médecins sans Frontières.

Main presenting symptoms and precipitating events reported by displacement status

31% of older adults reported that they were displaced. Compared with non-displaced older adults, displaced older adults had higher odds of reporting symptoms related to neuro-psychiatry (aOR=2.35; 95% CI 2.07 to 2.66), mood (aOR=2.08; 95% CI 1.93 to 2.24), ageing (aOR=1.47; 95% CI 1.15 to 1.86) and anxiety (aOR=1.42; 95% CI 1.33 to 1.51). Displaced older adults had higher odds of reporting precipitating events related to sexual trauma or abuse (aOR=2.97; 95% CI 2.66 to 3.32), abuse during detention (aOR=2.67; 95% CI 2.11 to 3.39), neuro-psychiatry (aOR=2.36; 95% CI 2.21 to 2.62), violence (aOR=2.15; 95% CI 1.92 to 2.40) and deprivation and discrimination (aOR=2.15; 95% CI 1.68 to 2.76) (online supplemental table 2).

The effect sizes of reported main mental health symptoms showed variations by sex. Compared with their non-displaced counterparts, both displaced women and men had higher odds of presenting with symptoms related to neuro-psychiatry (women: aOR=2.05; 95% CI 1.72 to 2.44; men: aOR=2.72; 95% CI 2.27 to 3.26), mood (women: aOR=1.83; 95% CI 1.67 to 2.00; men: aOR=2.77; 95% CI 2.43 to 3.16), anxiety (women: aOR=1.40; 95% CI 1.30 to 1.52; men: aOR=1.45; 95% CI 1.31 to 1.60) and ageing (women: aOR=1.40; 95% CI 1.01 to 1.92; men: aOR=1.57; 95% CI 1.09 to 2.23). Displaced women and men had lower odds of presenting with physical complaints (women: aOR=0.28; 95% CI 0.25 to 0.30; men: aOR=0.18; 95% CI 0.16 to 0.21).

Similarly, the effect sizes of reported precipitating events showed variations by sex. Both displaced women and men had higher odds of reporting precipitating events related to sexual trauma or abuse (women: aOR=3.04; 95% CI 2.71 to 3.41; men: aOR=2.18; 95% CI 1.43 to 3.29), abuse during detention (women: aOR=2.65; 95% CI 1.78 to 3.98; men: aOR=2.70; 95% CI 2.01 to 3.62), violence (women: aOR=2.28; 95% CI 1.98 to 2.62; men: aOR=1.96; 95% CI 1.63 to 2.34), neuro-psychiatry (women: aOR=1.97; 95% CI 1.72 to 2.26; men: aOR=2.99; 95% CI 2.55 to 3.51) and deprivation and discrimination (women: aOR=1.64; 95% CI 1.15 to 2.33; men: aOR=2.83; 95% CI 1.99 to 4.02). Displaced women and men had lower odds of reporting precipitating events related to medical illness (women: aOR=0.27; 95% CI 0.25 to 0.30; men: aOR=0.27; 95% CI 0.24 to 0.30) (table 5).

DISCUSSION

To our knowledge, this is the largest multicountry analysis of older adult's mental health data from humanitarian settings in LMICs. We analysed data from 21 926 adults aged 50 years and older applying a lens of intersectionality. We found that older adults who accessed

Table 2 Comparison of main presenting symptoms and precipitating events of adults aged 50 years and older who accessed MSF-supported mental health services between July 2019 and July 2024 by sex

Main presenting symptom	Total (N=20 642)	Female (N=12 150)	Male (N=8492)	OR* (95% CI)	aOR† (95% CI)
Anxiety-related symptoms	7400 (36%)	4498 (37%)	2902 (34%)	1.13 (1.07 to 1.20)	1.01 (0.95 to 1.07)
Physical complaints	6891 (33%)	3588 (30%)	3303 (39%)	0.66 (0.62 to 0.70)	0.80 (0.75 to 0.85)
Mood-related symptoms	3709 (18%)	2596 (21%)	1113 (13%)	1.80 (1.67 to 1.95)	1.60 (1.48 to 1.73)
Neuro-psychiatric-related symptoms	1040 (5.0%)	529 (4.4%)	511 (6.0%)	0.71 (0.63 to 0.81)	0.65 (0.57 to 0.74)
Behaviour-related symptoms	707 (3.4%)	399 (3.3%)	308 (3.6%)	0.90 (0.78 to 1.05)	0.83 (0.71 to 0.96)
Problems related to social functioning	583 (2.8%)	377 (3.1%)	206 (2.4%)	1.29 (1.09 to 1.53)	1.25 (1.05 to 1.49)
Age-related symptoms	312 (1.5%)	163 (1.3%)	149 (1.8%)	0.76 (0.61 to 0.95)	0.91 (0.72 to 1.14)
Precipitating event	**Total (N=21 449)**	**Female (N=12 758)**	**Male (N=8691)**	**OR* (95% CI)**	**aOR† (95% CI)**
Medical illness-related	9373 (44%)	4765 (37%)	4608 (53%)	0.53 (0.50 to 0.56)	0.60 (0.57 to 0.64)
Domestic discord and family violence	1686 (7.9%)	1280 (10%)	406 (4.7%)	2.28 (2.03 to 2.56)	2.17 (1.94 to 2.44)
Socioeconomic functioning	1611 (7.5%)	821 (6.4%)	790 (9.1%)	0.69 (0.62 to 0.76)	0.65 (0.59 to 0.73)
Disruption of family and relationships	1575 (7.3%)	1108 (8.7%)	467 (5.4%)	1.67 (1.50 to 1.87)	1.55 (1.38 to 1.73)
Neuro-psychiatric-related	1566 (7.3%)	886 (6.9%)	680 (7.8%)	0.88 (0.79 to 0.98)	0.81 (0.73 to 0.90)
Sexual trauma or abuse	1460 (6.8%)	1368 (11%)	92 (1.1%)	11.2 (9.13 to 14.00)	9.98 (8.11 to 12.40)
Events related to violence	1369 (6.4%)	835 (6.5%)	534 (6.1%)	1.07 (0.96 to 1.20)	0.95 (0.84 to 1.06)
Loss/mourning	1220 (5.7%)	928 (7.3%)	292 (3.4%)	2.26 (1.98 to 2.58)	2.16 (1.89 to 2.47)
Displacement, migration and related problems	460 (2.1%)	243 (1.9%)	217 (2.5%)	0.76 (0.63 to 0.91)	0.60 (0.49 to 0.72)
Others	323 (1.5%)	155 (1.2%)	168 (1.9%)	0.62 (0.50 to 0.78)	0.64 (0.51 to 0.80)
Events related to abuse during detention	284 (1.3%)	99 (0.8%)	185 (2.1%)	0.36 (0.28 to 0.46)	0.31 (0.24 to 0.40)
Events related to natural disasters	265 (1.2%)	142 (1.1%)	123 (1.4%)	0.78 (0.62 to 1.00)	0.72 (0.57 to 0.92)
Deprivation and discrimination	257 (1.2%)	128 (1.0%)	129 (1.5%)	0.67 (0.53 to 0.86)	0.62 (0.48 to 0.80)

*Reference group: older men.
†Adjusted Odds Ratio (aOR): Adjusted for age group and displacement status.
MSF, Médecins sans Frontières.

Table 3 Comparison of main presenting symptoms and precipitating events of women aged 50 years and older who accessed MSF-supported mental health services between July 2019 and July 2024 by age group

Main presenting symptom	50–59 (N=6930)	60–69 (N=3732)	70–79 (N=1175)	≥80 (N=313)	OR* (95% CI)	aOR† (95% CI)
Anxiety-related symptoms	2963 (43%)	1193 (32%)	287 (24%)	55 (18%)	0.65 (0.62 to 0.68)	0.66 (0.63 to 0.70)
Physical complaints	1457 (21%)	1346 (36%)	603 (51%)	182 (58%)	1.92 (1.83 to 2.02)	1.87 (1.77 to 1.97)
Mood-related symptoms	1698 (25%)	706 (19%)	158 (13%)	34 (11%)	0.71 (0.66 to 0.75)	0.73 (0.69 to 0.78)
Neuro-psychiatric-related symptoms	287 (4.1%)	184 (4.9%)	42 (3.6%)	16 (5.1%)	1.03 (0.92 to 1.15)	1.08 (0.97 to 1.21)
Behaviour-related symptoms	272 (3.9%)	99 (2.7%)	22 (1.9%)	6 (1.9%)	0.70 (0.60 to 0.81)	0.70 (0.60 to 0.82)
Problems related to social functioning	198 (2.9%)	145 (3.9%)	34 (2.9%)	0 (0%)	0.98 (0.85 to 1.12)	0.98 (0.85 to 1.12)
Age-related symptoms	55 (0.8%)	59 (1.6%)	29 (2.5%)	20 (6.4%)	1.94 (1.65 to 2.27)	1.98 (1.69 to 2.33)
Precipitating event	**50–59 (N=7379)**	**60–69 (N=3862)**	**70–79 (N=1197)**	**≥80 (N=320)**	**OR* (95% CI)**	**aOR† (95% CI)**
Medical illness-related	2220 (30%)	1642 (43%)	695 (58%)	208 (65%)	1.73 (1.65 to 1.81)	1.69 (1.61 to 1.77)
Sexual trauma or abuse	914 (12%)	370 (9.6%)	76 (6.3%)	8 (2.5%)	0.69 (0.63 to 0.75)	0.73 (0.66 to 0.79)
Domestic discord and family violence	919 (12%)	280 (7.3%)	64 (5.3%)	17 (5.3%)	0.62 (0.56 to 0.68)	0.60 (0.55 to 0.66)
Disruption of family and relationships	700 (9.5%)	327 (8.5%)	67 (5.6%)	14 (4.4%)	0.79 (0.73 to 0.87)	0.81 (0.74 to 0.88)
Loss/mourning	552 (7.5%)	304 (7.9%)	53 (4.4%)	19 (5.9%)	0.89 (0.81 to 0.97)	0.90 (0.82 to 0.98)
Neuro-psychiatric-related	514 (7.0%)	281 (7.3%)	62 (5.2%)	29 (9.1%)	0.98 (0.90 to 1.07)	1.02 (0.93 to 1.11)
Events related to violence	559 (7.6%)	218 (5.6%)	51 (4.3%)	7 (2.2%)	0.72 (0.64 to 0.80)	0.75 (0.67 to 0.83)
Socioeconomic functioning	554 (7.5%)	208 (5.4%)	51 (4.3%)	8 (2.5%)	0.71 (0.64 to 0.79)	0.71 (0.64 to 0.79)
Displacement, migration and related problems	149 (2.0%)	71 (1.8%)	21 (1.8%)	2 (0.6%)	0.87 (0.72 to 1.03)	0.98 (0.81 to 1.17)
Others	93 (1.3%)	43 (1.1%)	14 (1.2%)	5 (1.6%)	0.98 (0.79 to 1.20)	0.95 (0.76 to 1.16)
Events related to natural disasters	84 (1.1%)	43 (1.1%)	15 (1.3%)	0 (0%)	0.91 (0.72 to 1.13)	0.95 (0.75 to 1.18)
Deprivation and discrimination	67 (0.9%)	43 (1.1%)	16 (1.3%)	2 (0.6%)	1.12 (0.89 to 1.38)	1.15 (0.92 to 1.42)
Events related to abuse during detention	54 (0.7%)	32 (0.8%)	12 (1.0%)	1 (0.3%)	1.05 (0.81 to 1.34)	1.11 (0.85 to 1.42)

*OR for trend—increased odds per increase in age group.
†Adjusted Odds Ration (aOR): Adjusted for displacement status.
MSF, Médecins sans Frontières.

Table 4 Comparison of main presenting symptoms and precipitating events of men aged 50 years and older who accessed MSF-supported mental health services between July 2019 and July 2024 by age group

Main presenting symptom	50–59 (N=3889)	60–69 (N=2844)	70–79 (N=1351)	≥80 (N=408)	OR* (95% CI)	aOR† (95% CI)
Anxiety-related symptoms	1628 (42%)	912 (32%)	298 (22%)	64 (16%)	0.63 (0.60 to 0.67)	0.64 (0.61 to 0.68)
Physical complaints	1041 (27%)	1215 (43%)	757 (56%)	290 (71%)	1.89 (1.79 to 1.99)	1.86 (1.76 to 1.97)
Mood-related symptoms	653 (17%)	340 (12%)	104 (7.7%)	16 (3.9%)	0.64 (0.58 to 0.69)	0.66 (0.60 to 0.72)
Neuro-psychiatric-related symptoms	258 (6.6%)	175 (6.2%)	66 (4.9%)	12 (2.9%)	0.83 (0.74 to 0.92)	0.87 (0.78 to 0.97)
Behaviour-related symptoms	183 (4.7%)	93 (3.3%)	31 (2.3%)	1 (0.2%)	0.63 (0.54 to 0.74)	0.64 (0.55 to 0.75)
Problems related to social functioning	103 (2.6%)	69 (2.4%)	29 (2.1%)	5 (1.2%)	0.86 (0.72 to 1.01)	0.89 (0.75 to 1.05)
Age-related symptoms	23 (0.6%)	40 (1.4%)	66 (4.9%)	20 (4.9%)	2.29 (1.95 to 2.70)	2.37 (2.01 to 2.79)
Precipitating event	**50–59 (N=3994)**	**60–69 (N=2908)**	**70–79 (N=1375)**	**≥80 (N=414)**	**OR* (95% CI)**	**aOR† (95% CI)**
Medical illness-related	1804 (45%)	1588 (55%)	894 (65%)	322 (78%)	1.54 (1.46 to 1.62)	1.50 (1.42 to 1.58)
Sexual trauma or abuse	53 (1.3%)	33 (1.1%)	5 (0.4%)	1 (0.2%)	0.63 (0.47 to 0.83)	0.65 (0.48 to 0.86)
Domestic discord and family violence	230 (5.8%)	126 (4.3%)	45 (3.3%)	5 (1.2%)	0.70 (0.62 to 0.80)	0.70 (0.61 to 0.80)
Disruption of family and relationships	248 (6.2%)	151 (5.2%)	56 (4.1%)	12 (2.9%)	0.79 (0.71 to 0.89)	0.83 (0.73 to 0.93)
Loss/mourning	149 (3.7%)	94 (3.2%)	42 (3.1%)	7 (1.7%)	0.85 (0.74 to 0.98)	0.86 (0.74 to 0.99)
Neuro-psychiatric-related	353 (8.8%)	204 (7.0%)	100 (7.3%)	23 (5.6%)	0.86 (0.79 to 0.95)	0.91 (0.83 to 1.00)
Events related to violence	286 (7.2%)	195 (6.7%)	45 (3.3%)	8 (1.9%)	0.71 (0.64 to 0.80)	0.73 (0.65 to 0.82)
Socioeconomic functioning	411 (10%)	254 (8.7%)	109 (7.9%)	16 (3.9%)	0.81 (0.74 to 0.89)	0.81 (0.74 to 0.88)
Displacement, migration and related problems	107 (2.7%)	81 (2.8%)	28 (2.0%)	1 (0.2%)	0.81 (0.68 to 0.95)	0.94 (0.78 to 1.13)
Others	79 (2.0%)	61 (2.1%)	22 (1.6%)	6 (1.4%)	0.92 (0.76 to 1.10)	0.89 (0.74 to 1.06)
Events related to natural disasters	78 (2.0%)	31 (1.1%)	12 (0.9%)	2 (0.5%)	0.62 (0.48 to 0.79)	0.62 (0.48 to 0.79)
Deprivation and discrimination	75 (1.9%)	37 (1.3%)	12 (0.9%)	5 (1.2%)	0.74 (0.58 to 0.92)	0.77 (0.61 to 0.97)
Events related to abuse during detention	121 (3.0%)	53 (1.8%)	5 (0.4%)	6 (1.4%)	0.55 (0.44 to 0.68)	0.57 (0.45 to 0.70)

*OR for trend—increased odds per increase in age group.
†Adjusted for displacement status.
MSF, Médecins sans Frontières.

Table 5 Comparison of main presenting symptoms and precipitating events of adults aged 50 years and older who accessed MSF-supported mental health services between July 2019 and July 2024 by displacement status

	Female				Male			
Main presenting symptom	**Non-displaced (N=7908)**	**Displaced (N=4242)**	**OR* (95% CI)**	**aOR† (95% CI)**	**Non-displaced (N=6223)**	**Displaced (N=2269)**	**OR* (95% CI)**	**aOR† (95% CI)**
Anxiety-related symptoms	2673 (34%)	1825 (43%)	1.48 (1.37 to 1.60)	1.40 (1.30 to 1.52)	1962 (32%)	940 (41%)	1.54 (1.39 to 1.70)	1.45 (1.31 to 1.60)
Physical complaints	3000 (38%)	588 (14%)	0.26 (0.24 to 0.29)	0.28 (0.25 to 0.30)	2986 (48%)	317 (14%)	0.18 (0.15 to 0.20)	0.18 (0.16 to 0.21)
Mood-related symptoms	1381 (17%)	1215 (29%)	1.90 (1.74 to 2.07)	1.83 (1.67 to 2.00)	586 (9.4%)	527 (23%)	2.91 (2.56 to 3.31)	2.77 (2.43 to 3.16)
Neuro-psychiatric-related symptoms	258 (3.3%)	271 (6.4%)	2.02 (1.70 to 2.41)	2.05 (1.72 to 2.44)	263 (4.2%)	248 (11%)	2.78 (2.32 to 3.33)	2.72 (2.27 to 3.26)
Behaviour-related symptoms	251 (3.2%)	148 (3.5%)	1.10 (0.90 to 1.35)	1.05 (0.85 to 1.29)	201 (3.2%)	107 (4.7%)	1.48 (1.16 to 1.88)	1.40 (1.09 to 1.77)
Problems related to social functioning	246 (3.1%)	131 (3.1%)	0.99 (0.80 to 1.23)	0.99 (0.79 to 1.23)	122 (2.0%)	84 (3.7%)	1.92 (1.45 to 2.54)	1.88 (1.42 to 2.50)
Age-related symptoms	99 (1.3%)	64 (1.5%)	1.21 (0.88 to 1.65)	1.40 (1.01 to 1.92)	103 (1.7%)	46 (2.0%)	1.23 (0.86 to 1.73)	1.57 (1.09 to 2.23)
Precipitating event	**Non-displaced (N=8494)**	**Displaced (N=4264)**	**OR* (95% CI)**	**aOR† (95% CI)**	**Non-displaced (N=6426)**	**Displaced (N=2265)**	**OR* (95% CI)**	**aOR† (95% CI)**
Medical illness-related	3958 (47%)	807 (19%)	0.27 (0.24 to 0.29)	0.27 (0.25 to 0.30)	3943 (61%)	665 (29%)	0.26 (0.24 to 0.29)	0.27 (0.24 to 0.30)
Sexual trauma or abuse	576 (6.8%)	792 (19%)	3.14 (2.80 to 3.52)	3.04 (2.71 to 3.41)	51 (0.8%)	41 (1.8%)	2.30 (1.52 to 3.48)	2.18 (1.43 to 3.29)
Domestic discord and family violence	993 (12%)	287 (6.7%)	0.55 (0.47 to 0.62)	0.51 (0.45 to 0.59)	303 (4.7%)	103 (4.5%)	0.96 (0.76 to 1.21)	0.92 (0.72 to 1.15)
Disruption of family and relationships	646 (7.6%)	462 (11%)	1.48 (1.30 to 1.67)	1.44 (1.27 to 1.63)	261 (4.1%)	206 (9.1%)	2.36 (1.95 to 2.85)	2.30 (1.90 to 2.77)
Loss/mourning	559 (6.6%)	369 (8.7%)	1.34 (1.17 to 1.54)	1.33 (1.16 to 1.52)	205 (3.2%)	87 (3.8%)	1.21 (0.93 to 1.56)	1.18 (0.91 to 1.52)
Neuro-psychiatric-related	457 (5.4%)	429 (10%)	1.97 (1.71 to 2.26)	1.97 (1.72 to 2.26)	346 (5.4%)	334 (15%)	3.04 (2.59 to 3.56)	2.99 (2.55 to 3.51)
Events related to violence	396 (4.7%)	439 (10%)	2.35 (2.04 to 2.70)	2.28 (1.98 to 2.62)	317 (4.9%)	217 (9.6%)	2.04 (1.70 to 2.44)	1.96 (1.63 to 2.34)
Socioeconomic functioning	561 (6.6%)	260 (6.1%)	0.92 (0.79 to 1.07)	0.88 (0.76 to 1.03)	589 (9.2%)	201 (8.9%)	0.97 (0.81 to 1.14)	0.93 (0.79 to 1.10)
Displacement, migration and related problems	36 (0.4%)	207 (4.9%)	12.0 (8.51 to 17.4)	12.0 (8.49 to 17.4)	17 (0.3%)	200 (8.8%)	36.5 (22.9 to 62.4)	36.20 (22.7 to 61.8)
Others	127 (1.5%)	28 (0.7%)	0.44 (0.28 to 0.65)	0.43 (0.28 to 0.64)	145 (2.3%)	23 (1.0%)	0.44 (0.28 to 0.68)	0.44 (0.27 to 0.67)
Events related to natural disasters	71 (0.8%)	71 (1.7%)	2.01 (1.44 to 2.80)	1.99 (1.43 to 2.78)	92 (1.4%)	31 (1.4%)	0.96 (0.62 to 1.42)	0.90 (0.59 to 1.34)
Deprivation and discrimination	71 (0.8%)	57 (1.3%)	1.61 (1.13 to 2.28)	1.64 (1.15 to 2.33)	64 (1.0%)	65 (2.9%)	2.94 (2.07 to 4.17)	2.83 (1.99 to 4.02)
Events related to abuse during detention	43 (0.5%)	56 (1.3%)	2.62 (1.76 to 3.92)	2.65 (1.78 to 3.98)	93 (1.4%)	92 (4.1%)	2.88 (2.15 to 3.86)	2.70 (2.01 to 3.62)

*Reference group: non-displaced older women and men respectively.
†Adjusted Odds Ratio (aOR): Adjusted for age group.
MSF, Médecins sans Frontières.

MSF-supported mental health services most frequently reported anxiety-related symptoms, physical complaints and mood-related symptoms. Compared with older men, older women had higher odds of mood-related symptoms. Being of more advanced age was associated with higher odds of experiencing symptoms related to ageing, physical complaints and medical illness, for both older women and men. For both older women and men, being displaced was associated with higher odds of presenting with anxiety-related, mood-related, neuro-psychiatry-related and ageing-related symptoms and reporting precipitating events related to sexual trauma or abuse, violence, abuse during detention, and deprivation and discrimination.

Several other studies showed that women have a higher risk for the development of mental health conditions such as Post Traumatic Stress Disorder (PTSD)[18–20] and depression[21] than men in humanitarian crises. Women in humanitarian settings are often at a higher risk of mental health disorders due to shifts in traditional gender dynamics and gender-based violence.[21] This is confirmed by our analysis which shows that older women have increased odds of reporting events related to sexual trauma or abuse and domestic discord and family violence. Targeted prevention activities could prevent sexual trauma and abuse and domestic discord and family violence, leading to a decreased burden of mental ill-health among older people, and especially older women, in humanitarian settings.[22] Additionally, (peri-)menopause and the lack of access to hormone replacement therapy may explain the higher odds of mood-related symptoms among older women.[23]

Contradictory to other studies, our analysis shows that more advanced age was associated with lower odds of presenting with mood-related and anxiety-related symptoms for both women and men.[6] A potential explanation for this discrepancy could lie in the source of the data. Other studies were population-based surveys, and therefore by design better able to elicit a complete picture of mental health needs of older adults, especially those of more advanced age who may face even more barriers to access mental health services and were therefore not captured in our study population.[24] Additionally, MSF-supported mental health services are typically part of a referral pathway from MSF-supported outpatient and inpatient departments. Older adults who seek medical care for physical complaints may be referred to MSF-supported mental health services, while older adults who experience 'only' symptoms related to anxiety or mood may experience barriers to accessing MSF-supported mental health services as a standalone service due to a variety of possible reasons such as stigma, distance, opportunity costs, dependency on caregivers or other extrinsic barriers.[25 26]

Both displaced women and men had higher odds of presenting with mood-related, neuro-psychiatry-related and anxiety-related symptoms and reporting precipitating events related to sexual trauma or abuse, violence, abuse during detention, and deprivation and discrimination. A systematic review showed that in conflict settings, worse general psychological health is associated with displacement status and exposure to violent and traumatic events including forced displacement, particularly internal displacement.[21] A qualitative study in South Sudan, Uganda and Ethiopia among displaced older South Sudanese adults linked their mental ill-health and psychological issues with their loss of power, authority and role in the community because of displacement.[27] Similarly, a study among older Georgian IDPs linked symptoms of psychological distress to displacement-related experiences, such as difficulties with integration, grief and war trauma.[28] Studies from sub-Saharan Africa highlight that displacement had significantly more negative effects on the mental health of women compared with men.[29–31] The shift in gender roles that displaced women experience may create psychosomatic distress in women because of the added financial responsibility to provide shelter, food and security.[30] Additionally, older women's role as caregivers tends to increase during displacement, as they find themselves having to care for an increased number of children due to the death of the parents during the conflict, or because the children are separated from their parents during flight.[27]

Our analysis further shows that, compared with their non-displaced counterparts, displaced women and men had higher odds of presenting with ageing-related mental health symptoms including cognitive decline. Several factors related to their displacement could contribute to the exacerbation of cognitive decline in older persons such as stress and trauma, social isolation and nutritional deficiencies.[32 33] This finding calls for the training of mental health staff on mental health symptoms related to ageing, including cognitive decline, particularly in displaced older populations.

Finally, our analysis shows that displaced adults had lower odds of presenting at mental health services with physical complaints and experiencing precipitating events related to medical illness than their non-displaced counterparts. We hypothesise that exposure to various stressors related to their displacement may increase that capacity to endure health conditions. However, current literature lacks consensus on how to best define resilience of older persons during conflict situations and adequately explore its role in helping them endure conflicts[34] or other stressors such as physical ill-health.

As with any retrospective analysis of medical data that are collected as a routine activity, this study has its limitations. While countries from all regions of the world were included in the analysis, some regions were less represented than others due to the variance in the presence of MSF-supported mental health services. The contexts in which MSF works are characterised by complex crises, in which different types of emergencies either co-occurred or followed each other rapidly within the 5-year study period. While this study gives an overview of the mental health of older adults in complex emergency

settings, regional differences may exist, and the mental health consequences of a purely environmental disaster may differ from a pure conflict setting where there are no other types of emergencies, as well as on the length of displacement. With the data we have available, we were not able to answer those questions, and further, more pointed research needs to be done. MSF-supported mental health services are predominantly provided by local lay workers who are trained on basic counselling skills. Therefore, the categories of symptoms that are collected are relatively broad. Different assessment tools (eg, PHQ-9 and GAD-7) were applied to identify mental health symptoms. However, studies have shown the limitations of these assessment tools due to a lack of cultural appropriateness of the tools, as many are developed for Western contexts and have not been validated in the contexts where MSF works. While data collection forms, including the definitions of the variables and labels, were standardised across MSF-supported mental health services, we cannot be certain that all mental health staff across 20 countries completely and accurately filled out the forms. While we aimed to apply a lens of intersectionality to this analysis, MSF does not routinely collect data on socioeconomic status, disability status, ethnicity, education level, social support system and other characteristics that may affect mental ill-health in DHIS2, and we were therefore not able to include those factors in our analysis. Our assessment of intersectionality related to mental ill-health was therefore limited to more advanced age, sex and displacement status. For our study, we used routine data from MSF-supported mental health services, therewith only including data from adults who accessed our mental health services. This led to the potential exclusion of older adults with mental health symptoms for whom MSF-supported mental health services were not accessible due to distance, mobility limitations, dependence on a caregiver or family member to accompany, generational attitudes that might discourage seeking mental health support, or other barriers. This may have led to an underrepresentation of specific groups of older people who were more impacted by barriers, such as those of more advanced age, with limited mobility or older adults with more severe mental health conditions.

CONCLUSION

Older adults in humanitarian settings experience diverse mental health symptoms, with critical differences by sex and displacement status. Women were more likely than men to present with mood-related symptoms and to report experiences of sexual trauma and abuse. Displacement significantly heightens exposure to violence and increases mental health presentations for both women and men. These findings underscore the urgent need to strengthen protection systems and ensure access to gender-sensitive mental health interventions for older populations.

Further research applying an intersectional lens is essential to examine the violence experienced by older adults and the barriers they face in accessing mental health services in humanitarian settings. This should include mixed-method, population-based studies to better understand the broader context, as well as the nuanced nature, manifestations and prevalence of mental health conditions among older adults.

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Acknowledgements Our deepest gratitude and respect goes to the teams that provide vital mental health support to those in need in humanitarian emergencies. We would like to thank Cono Ariti for the statistical support.

Contributors EvB acted as the guarantor. EvB, PK, GC and RS conceptualised the study. EvB was responsible for the data analysis and drafted the first version of the manuscript. EvB, RS, NW, GC, ER, FE, JLB, UP, JvdK, NF, MD, GKB, ADA, MS, OF and PK were responsible for data interpretation. All authors reviewed and approved the final manuscript.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, conduct, reporting or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval This study was based on anonymised MSF patient data, and all analyses were conducted without revealing the identity of any of the programmes or countries represented. Consequently, this research fulfilled the exemption criteria set by the Médecins sans Frontières Ethics Review Board for a posteriori analyses of routinely-collected clinical data and thus did not require MSF ERB review. It was conducted with permission from Medical Director, Operational Center OCA Médecins sans Frontières.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available upon reasonable request. The datasets generated and/or analysed during the current study are not publicly available due to individual privacy of included patients but are available from the corresponding author on reasonable request.

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