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Exploring the minimum treatment duration for mental health interventions: a retrospective analysis from a conflict-affected region of northern Nigeria

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Background

- Mental health and psychosocial support (MHPSS) programs are essential during humanitarian responses.

- The positive impact of brief MHPSS interventions in humanitarian contexts.

- Research on how severity affects clinical improvement is lacking, as is consensus over the number of consultations needed.

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Objectives

Determine how traumatic stress type and symptom severity affect clinical improvement.

Explore how long these patients must engage in mental health care to see results.

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Methods: study design and variables

Retrospective cohort study from 11,709 patients presenting for MSF MHPSS services.

- Clinical and sociodemographic characteristics.

- Symptom category and stress type.

- Severity:
  Clinical Global Impression-Severity (CGI-S).
  Mental Health Global State (MHGS).

- Improvement:
  CGI-Improvement (CGI-I).
  MHGS variation.

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Methods: statistical analysis

1. Descriptive analyses: variables were disaggregated by sex and age.

2. Univariate analyses: to measure the expected associations.

3. Final logistic regression models:
    - Factors associated with presenting a concrete disorder.
    - Factors associated with severity.
    - Factors associated with improvement.

4. The minimum number of consultations associated with improvement was estimated using margins of responses.

Ethics

As this study used routine programmatic data and took the necessary steps to protect patient confidentiality, it was exempted from full review by the MSF Ethical Review Board and the National Health Research Ethics Committee of Nigeria (NHREC). All study procedures were performed following the Declaration of Helsinki.

Results: characteristics, main symptoms categories and stress type

Symptom category	Male (n=2580)	Female (n=9100)	p Value	Children ≤15 years (n=1359)	Adults (n=10,322)	p Value	Total (n=11,681)
Depression	693 (26.9%)	3610 (39.7%)	<0.001	333 (24.5%)	3970 (38.5%)	<0.001	4303 (36.8%)
Anxiety	846 (32.8%)	3085 (33.9%)	<0.001	469 (34.5%)	3462 (33.5%)	<0.001	3931 (33.7%)
Posttraumatic	414 (4.4%)	1452 (16%)	0.001	271 (19.9%)	1596 (15.5%)	<0.001	1867 (16%)
Somatoform	258 (10%)	512 (5.6%)	0.001	107 (7.9%)	663 (6.4%)	0.001	770 (6.6%)
Others	162 (6.3%)	183 (2%)	0.003	98 (7.2%)	247 (2.4%)	0.001	345 (3%)
Psychotic	114 (4.4%)	209 (2.3%)	0.003	43 (3.2%)	280 (2.7%)	0.001	323 (2.8%)
Behavioral	73 (2.8%)	34 (0.4%)	0.004	27 (2%)	80 (0.8%)	0.001	107 (0.9%)
Cognitive	20 (0.8%)	15 (0.2%)	0.015	11 (0.8%)	24 (0.2%)	0.001	35 (0.3%)

Stressor	Male	Female	p Value	Children ≤15 years	Adults	p Value	Total
Relative with a severe medical condition	1136 (19.6%)	3839 (20.6%)	0.047	426 (11.1%)	4549 (22%)	<0.001	4975 (20.3%)
Sexual violence	826 (14.2%)	3473 (18.6%)	<0.001	857 (22.4%)	3442 (16.7%)	<0.001	4299 (17.6%)
Other stressors**	1430 (24.6%)	2696 (14.4%)	<0.001	1013 (26.5%)	3113 (15.1%)	<0.001	4126 (16.9%)
Family member killed or forced disappeared	790 (13.6%)	2990 (16%)	0.016	563 (14.7%)	3217 (15.6%)	<0.001	3780 (15.4%)
Property destroyed or lost	690 (11.9%)	1989 (10.7%)	<0.001	221 (5.8%)	2458 (11.9%)	<0.001	2679 (10.9%)
Forced to flee or IDP	440 (7.6%)	1636 (8.8%)	0.1399	329 (8.6%)	1747 (8.5%)	<0.001	2076 (8.5%)
Other violent events****	318 (5.5%)	1319 (7.1%)	0.003	259 (6.8%)	1378 (6.7%)	<0.001	1637 (6.7%)

Results: factors associated with symptoms and improvement

	Somatoform		Anxiety		Posttraumatic		Depression	
	OR [95% IC]	*p* Value	OR [95% IC]	*p* Value	OR [95% IC]	*p* Value	OR [95% IC]	*p* Value
Stressors								
Severe medical conditions	1.73 [0.96–1.53]	<0.001	1.49 [1.33–1.68]	<0.001	0.48 [0.41–0.57]	<0.001	0.59 [0.52–0.66]	<0.001
Unwanted pregnancy	–	–	–	–	–	–	3.94 [1.97–7.88]	0.027
Family member medical illness	0.67 [0.58–0.83]	0.002	3.21 [2.76–3.72]	<0.001	–	–	0.66 [0.58–0.75]	<0.001
Sexual violence	**1.7** [1.47–2.08]	<0.001	–	–	**21** [11.8–37.8]	<0.001	**3.8** [2.92–5.01]	<0.001
Combat experience	–	–	–	–	**19** [6.54–59.4]	<0.001	–	–
Incarceration	–	–	–	–	6.29 [1.23–32.2]	0.027	4.57 [1.34–15.2]	0.015
Kidnapping	0.36 [0.26–0.51]	<0.001	–	–	8.88 [4.34–18.2]	<0.001	0.62 [0.46–0.84]	<0.001
Domestic violence	0.46 [0.38–0.57]	<0.001	0.61 [0.50–0.75]	<0.001	0.51 [0.38–0.67]	<0.001	1.95 [1.65–2.31]	<0.001
Receive threats	–	–	1.55 [1.22–2.34]	0.007	16.28 [8.16–32.5]	<0.001	1.30 [1.10–1.53]	<0.001
Family member killed	–	–	0.42 [0.38–0.47]	<0.001	**19** [10.8–34.2]	<0.001	**1.5** 1.04–1.29]	<0.001
Unaccompanied minor	–	–	–	–	27.61 [9.28–82.1]	<0.001	–	–
Torture	–	–	–	–	**12** [1.14–123]	0.038	**1.5** [1.15–28.9]	0.027
Recruitment by armed groups	–	–	–	–	**18** [2.77–122]	0.003	**8.7** [1.22–79.3]	0.044
Others	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref

Results: Probability of presenting an improvement outcome by the number of consultations for patients´ severity

CGI-I OR: 2.5 [2.04–2.74] p<0.001
MHGS OR: 2 [1.84–2.24] p<0.001

CGI-I OR: 1.3 [1.12–2.34] p<0.019
MHGS OR: 1.3 [1.01–1.57] p<0.041

NUMBER OF CONSULTATIONS
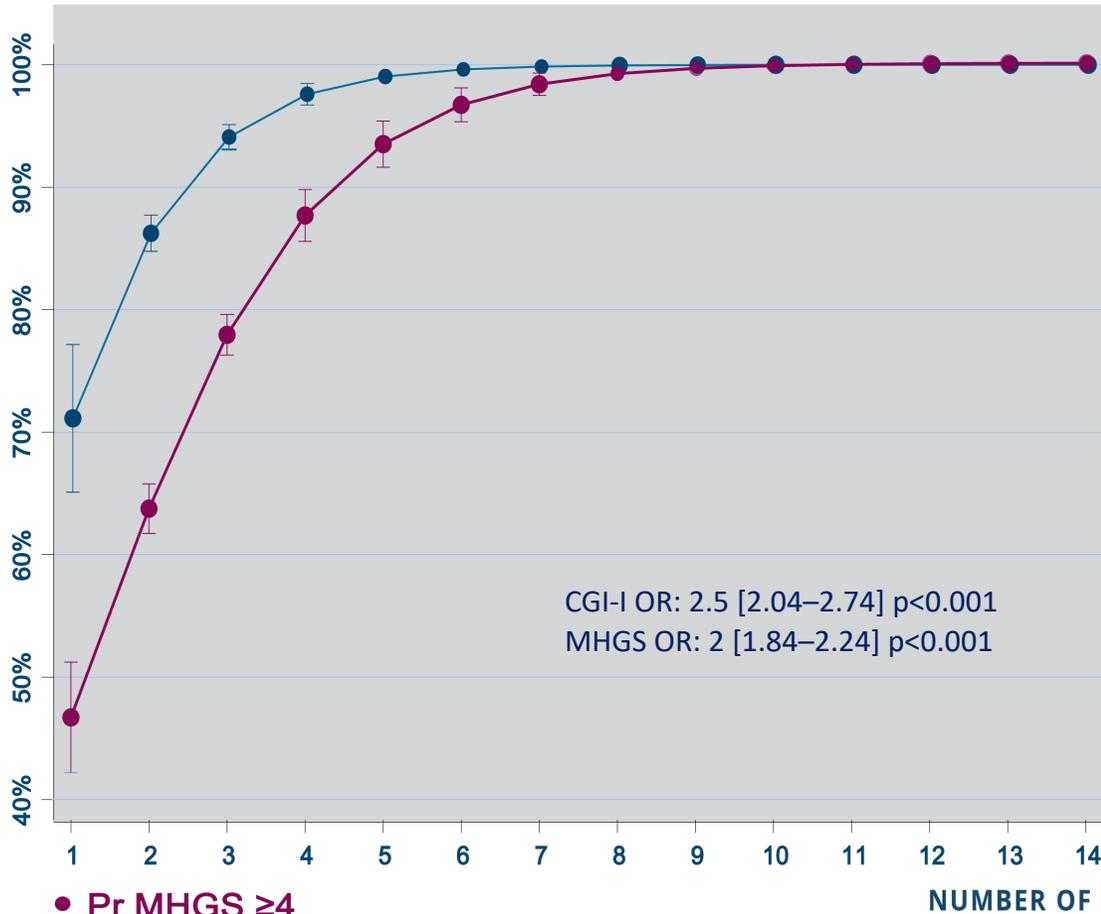
● Pr MHGS ≥4

● Pr CGI-Improvement 1, 2 or 3 points
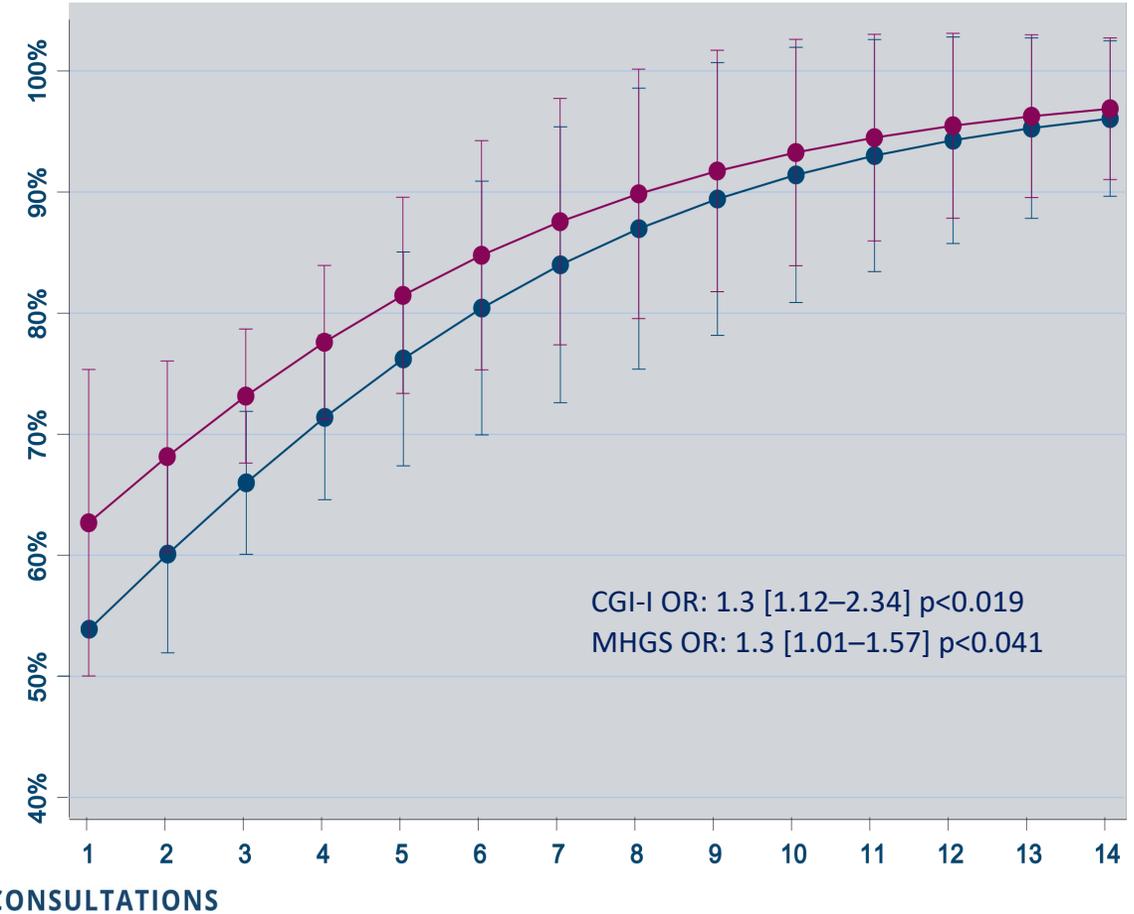
Limitations

- Data subjected to human and data entry errors.
- The study design only investigates associations between baseline risk factors.
- A high lost to follow-up rate among patients.
- The MHPSS was ongoing and some patients were thus not included in the analysis.

Conclusions and recommendations

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Conclusions and recommendations

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- Other conflict-related stressors showed a strong relationship with posttraumatic and depression symptoms.
- We set a minimum threshold of three sessions for mild or moderate symptoms and six sessions for severe symptoms.

Short psychological interventions are a necessity, but long-term interventions and pharmacological treatment should be available.

Focus on classifying the patient´s severity to identify the appropriate duration of care needed.

If you have any questions or clarifications, please don't hesitate to ask or contact me (santiagomtorre@gmail.com)

Thank you very much for your attention and enjoy the MSF Scientific Days!

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