

Global Psychotrauma Screen (GPS)

User guide

November 2022

2
3
4
5
5
5
6
7
7
8
9
9
11
12
12 14



The GPS in short

- The GPS is a transdiagnostic screener for stress and trauma related reactions in the past month.
- The GPS begins with questions about the stressful or traumatic event.
- The GPS provides indicators of:
 - o specific trauma related disorders or problems (e.g., PTSD)
 - o overall symptom burden
- The GPS also assesses risk and protective factors known to influence the development or course of symptoms
- The GPS can be used in a variety of settings such as in primary care, after disasters, or in clinical practice.
- The GPS is available in over 30 languages.
- The GPS-app provides the user with direct feedback on the scores.
- A 'positive' score may require more detailed follow-up assessments, e.g., with structured interviews for specific disorders.



Development of the GPS

The GPS was developed by an international group of experts representing traumatic stress societies worldwide, called the Global Collaboration on Traumatic Stress (Olff et al., 2020; Schnyder et al., 2017). The aim was to address the need for a brief instrument that would assess the wide range of acute or long-term potential consequences of very stressful / potentially traumatic events. The instrument screens for more than posttraumatic stress disorder (PTSD; see subdomains below). The GPS is intended for use in a variety of settings such as in primary care, after disasters, or for quick screening in clinical practice. For details on its development, see Olff et al. (2020).

The GPS and its subdomains

The GPS consists of 17 symptom items, 5 risk/protective factor items, each answered in a yes/no format, and one functioning item assessed on a scale from 1 (poor) to 10 (excellent).

The English version is attached (Appendix 1). See website (https://www.global-psychotrauma.net/gps) for other languages.

GPS and its subdomains

Symptom domains (17 items)

- PTSD
- Disturbances in Self-Organization (DSO) as part of Complex PTSD
- Anxiety
- Depression
- Sleep problems
- Self-harm
- Dissociation
- Other physical, emotional or social problems
- Substance abuse

Risk and protective factors (5 items)

- Other stressful events
- Childhood trauma
- History of mental illness
- Social support
- Psychological resilience



GPS languages

The GPS is currently available in over 30 languages (Table 1). For direct links: https://www.global-psychotrauma.net/gps

The English version has been translated into the languages listed above following the translation and cultural adaptation process described by Sousa and Rojjanasrirat (2011) or a similar process. Please note that some (African) languages are widely spoken across different countries and there might be instances when the terminology may suit one country better than another. Please contact us at gc.traumaticstress@gmail.com if a specific country version is required.

Table 1. GPS languages, availability through GPS app and pdf download

LANGUAGE	TAKE GPS APP	DOWNLOAD PDF
Afrikaans	take GPS app	download pdf
Amharic		download pdf
Arabic		download pdf
Armenian	take GPS app	download pdf
Chinese	take GPS app	download pdf
Croatian	take GPS app	download pdf
Dutch	take GPS app	download pdf
English	take GPS app	download pdf or < >
Farsi/Persian		download pdf
French	take GPS app	download pdf
Georgian	take GPS app	download pdf
German	take GPS app	download pdf
Greek	take GPS app	download pdf
Hausa		download pdf
Hebrew		download pdf
Indonesian	take GPS app	download pdf
Italian	take GPS app	download pdf
Japanese	take GPS app	download pdf
Norwegian	take GPS app	download pdf
Polish	take GPS app	download pdf
Portuguese (Europe)	take GPS app	download pdf
Portuguese (Brazil)	take GPS app	download pdf
Russian	take GPS app	download pdf
Slovak	take GPS app	download pdf
Spanish	take GPS app	download pdf
Spanish (Argentinian)	take GPS app	download pdf
Swahili		download pdf
Turkish	take GPS app	download pdf
Ukrainian		download pdf
Xhosa		download pdf
Yoruba		download pdf



The GPS app

The GPS is also available through the GPS webapp. The app allows users to easily fill out the GPS and to receive immediate feedback on scores.

For direct links: https://www.global-psychotrauma.net/gps



Collecting GPS data for research or clinical use

Researchers and clinicians may get a private portal for access to GPS app data. Please contact us if you are interested.

Scoring and interpretation

Respondents are asked to answer each of the 17 symptom items and each of the 5 risk and protective factors with 'Yes' or 'No'. Note that the resilience item must be recoded - in the Webapp data this item is already recoded.

The functioning item is scored on a 10-point scale, with 1 indicating poor functioning and 10 excellent functioning.

GPS Scoring

GPS items 1-21: No=0 Yes=1

GPS Item 22: No=1 Yes=0 (In the GPS-app GPS22 is already recoded)

GPS item 23: 10-point scale 1 = poor 10 = excellent

The demographic and event information fields are descriptive. The short textual descriptions of the stressful experience have been used in a text mining study as predictors of trauma-related symptoms (Marengo et al., 2022).

Total and subdomain scores

Total and subdomain scores can be calculated see *Tables 2 & 3*. See appendix 4 for a detailed SPSS Syntax.

Cutoff scores

Cutoff scores (Table 2) are provided to detect specific disorders with optimal sensitivity relative to specificity¹, based on the currently available published and unpublished studies (find them <u>here</u>). In situations where it is important to minimize false positives, a higher cutoff score might be considered.

¹ Optimal sensitivity means we prioritize detecting persons with mental health problems potentially needing help or treatment (true positives), while the number of false negatives should be low. Specificity relates to correctly identifying trauma survivors without traumatic stress problems.



It is advised that scoring above the total symptom cutoff or on certain subdomains is followed up with more detailed assessments, e.g., with structured interviews for specific disorders.

Table 2. Scoring of subdomains

TRAUMA RELATED DISORDERS OR PROBLEMS (SUBDOMAINS)	SCORING	CUTOFF WITH OPTIMAL SENSITIVITY FOR DETECTING SPECIFIC DISORDERS / PROBLEMS
GPS PTSD	Sum of items 1-5 (range 0-5)	3
GPS DSO	Sum of items 6-7 (range 0-2)	1
GPS COMPLEX PTSD	Sum of items 1-7 (range 0-7)	4
GPS ANXIETY	Sum of items 8-9 (range 0-2)	1
GPS DEPRESSION	Sum of items 10-11 (range 0-2)	1
GPS INSOMNIA	Item 12 (range 0-1)	1
GPS SELF-HARM	Item 13 (range 0-1)	1
GPS DISSOCIATION	Sum of items 14-15 (range 0-2)	1
GPS SUBSTANCE ABUSE	Item 18 (range 0-1)	1
GPS OTHER PROBLEMS	Item 16 (range 0-1)	1

Table 3. Scoring total scores

TRANSDIAGNOSTIC OVERALL SYMPTOM BURDEN	ITEMS	HOW TO USE
GPS Symptoms	Sum of items 1-16 + 18 (range 0-17)	Higher scores indicate higher overall burden. Cutoff with optimal sensitivity for detecting any disorder / problem and severity categories will be available in 2023. Mean scores per country are provided in Appendix 2.
RISK & PROTECTIVE FACTORS		
GPS Risk & Protective factors	Sum of items 17 + 19- 22r (range 0-5)	Higher scores indicate higher risk for (a negative course of) trauma related disorders or problems. Cutoff with optimal sensitivity for predicting any disorder / problem will be available in 2023.

Psychometric properties and norm data

Ongoing research suggests good internal reliability as well as concurrent validity of the GPS with instruments measuring a range of psychotrauma related symptom subdomains (Olff et al., 2020 & 2021, Oe et al., 2020; Rossi et al., 2020; Rossi et al., 2021; Frewen et al., 2021). Network analyses confirm the conceptualization of psychological responses to traumatic events (including COVID-19) as a network of highly interconnected symptoms and support the use of a transdiagnostic approach (Williamson et al., 2021).



Cross cultural norm data have been collected in a large global sample and data collection is ongoing. A paper based on over 7000 participants has been published (Olff et al., 2021). GPS total and subdomain scores per gender aggregated from countries with samples sizes >100 are listed in Appendix 2. Means and SDs for GPS symptom scores of male and female respondents in specific countries with sample sizes > 100 are listed in Appendix 3.

GPS existing data sets

Please feel free to use existing data sets including the GPS to answer further research questions. These can be found here (https://www.global-psychotrauma.net/data-sets).

Ongoing research using the GPS

An overview of ongoing studies can be found here.



References and contact details

- Frewen, P., McPhail, I, Schnyder, U., Oe, M., Olff, M. (2021). Global Psychotrauma Screen (GPS): Psychometric Properties in two Internet-based Studies. *European Journal of Psychotraumatology*, 12(1), https://doi.org/10.1080/20008198.2021.1881725
- Marengo, D., Hoeboer, C.M., Veldkamp, B.P., GPS-txt consortium, & Olff M. (2022). Text mining to improve screening for trauma-related symptoms in a global sample. Psychiatry Research. https://doi.org/10.1016/j.psychres.2022.114753
- Oe, M., Kobayashi, Y., Ishida, T., Chiba, H., Matsuoka, M., Kakuma, T., Frewen, P. & Olff, M. (2020). Screening for
 psychotrauma related symptoms: Japanese translation and pilot testing of the Global Psychotrauma Screen. *European Journal of Psychotraumatology*, 11(1), https://doi.org/10.1080/20008198.2020.1810893
- Olff, M., Bakker, A., Frewen, P., Aakvaag, H., Ajdukovic, D., Brewer, D., Elmore Borbon, D.L., Cloitre, M., Hyland, P., Kassam-Adams, N., Knefel, M., Lanza, J.A., Lueger-Schuster, B., Nickerson, A., Oe, M., Pfaltz, M.C., Salgado, C., Seedat, S., Wagner, A., Schnyder, U. & Global Collaboration on Traumatic Stress (GC-TS) (2020). Screening for consequences of trauma an update on the global collaboration on traumatic stress. European Journal of Psychotraumatology, 11(1), https://doi.org/10.1080/20008198.2020.1752504
- Olff, M., Primasari, I, Qing, Y, Coimbra B.M., Hovnanyan, A, Grace E, Williamson, R.E., Hoeboer, C.M. & Global Collaboration on Traumatic Stress (GC-TS) (2021). Mental Health Responses to COVID-19 around the World. *European Journal of Psychotraumatology*, 12(1), https://doi.org/10.1080/20008198.2021.1929754
- Rossi, R., Socci, V., Pacitti, F., Di Lorenzo, G., Di Marco, A., Siracusano, A., Rossi, Alessandro (2020). Mental Health
 Outcomes Among Frontline and Second-Line Health CareWorkers During the Coronavirus Disease 2019 (COVID-19)
 Pandemic in Italy. JAMA Network Open. 3,5:e2010185. doi:10.1001/jamanetworkopen.2020.10185
- Rossi, R., Socci, V., Talevi, D. Cinzia Niolu, C., Pacitti, F., Di Marco, A., Rossi, A., Siracusano, A., Di Lorenzo, G., Olff, M. (2021). Trauma-spectrum symptoms among the Italian general population in the time of the COVID-19 outbreak. European Journal of Psychotraumatology, 12(1), https://doi.org/10.1080/20008198.2020.1855888
- Schnyder, U., Schafer, I., Aakvaag, H. F., Ajdukovic, D., Bakker, A., Bisson, J.I., Brewer, D., Cloitre, M., Dyb, G.A., Frewen, P., Lanza, J., Le Brocque, R., Lueger-Schuster, B., Mwiti, G.K., Oe, M., Rosner, R., Schellong, J., Shigemura, J., Wu, K., & Olff, M. (2017). The global collaboration on traumatic stress. *European Journal of Psychotraumatology*, 8,(1), doi.org/10.1080/20008198.2017.1403257
- Sousa, V.D. & Rojjanasrirat, W. (2011). Translation, adaptation and validation of instruments or scales for use in crosscultural health care research: a clear and user-friendly guideline. *Journal of Evaluation in Clinical Practice* 17, 268–274
- Williamson R. E., Hoeboer, C., Primasari, I., Qing, Y., Coimbra, B., Hovnanyan, A., Grace, E., & Olff, M. (2021). Symptom networks of COVID-19-related versus other potentially traumatic events in a global sample. *Journal of Anxiety Disorders*, 84, 102476 https://doi.org/10.1016/j.janxdis.2021.102476

Contact details

If you have any questions regarding the GPS, please contact:

gc.traumaticstress@gmail.com



Appendices

Appendix 1. GPS English version

Global Psychotrauma Screen (GPS)		Participant Ide	ntification Number			
Gender	emale	☐ Male Other				
Age (years)						
Sometimes things happen to people that are unusually or frightening, horrible, or traumatic.	especia	ally				
Briefly describe the event or experience that currently affects you th	e most:					
This event happened: ☐ last month ☐ last half year ☐ last year	□ lon	ger ago				
This event: ☐ was a single event occurring, at age ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	and _	_ _				
Which of the below characterize the event (more answers possible):						
Physical violence: ☐ to yourself ☐ happened to someone else ☐ sexual violence: ☐ to yourself ☐ happened to someone else ☐ to yourself ☐ happened to someone else ☐ serious injury: ☐ to yourself ☐ happened to someone else ☐ to yourself ☐ happened to someone else ☐ happened to someone else ☐ happened to someone else						
☐ Sudden death of a loved one☐ You causing harm to someone else☐ Corona virus (COVID-19)						
Considering the above event, in the past month have you						
1 had nightmares about the past traumatic life event(s) you have experienced or thought about the event(s) when you did not want	to?	□ No	□ Yes			
 tried hard not to think about past traumatic life event(s) or went ou your way to avoid situations that reminded you of the event(s)? 		□ No	□Yes			
3 been constantly on guard, watchful, or easily startled?		□No	□ Yes			
4 felt numb or detached from people, activities, or your surrounding	s?	□ No	□ Yes			
5. felt guilty or unable to stop blaming yourself or others for past trau life event(s) or any problems the event(s) caused?	ımatic	□ No	□ Yes			
6 tended to feel worthless?		□ No	□ Yes			
7 experienced angry outbursts that you could not control?		□No	□ Yes			



8.	been feeling nervous, anxious, or on edge?	□ No	□ Yes
9.	been unable to stop or control worrying?	□ No	□ Yes
10.	been feeling down, depressed, or hopeless?	□ No	□ Yes
11.	been experiencing little interest or pleasure in doing things?	□ No	□ Yes
12.	had any problems falling or staying asleep?	□ No	□ Yes
13.	tried to intentionally hurt yourself?	□ No	□ Yes
14.	perceived or experienced the world or other people differently, so that things seem dreamlike, strange or unreal?	□ No	□ Yes
15.	·· felt detached or separated from your body (for example, feeling like you are looking down on yourself from above, or like you are an outside observer of your own body)?	□ No	□Yes
16.	had any other physical, emotional or social problems that bothered you?	□ No	□ Yes
17.	experienced other stressful events (such as financial problems, changing jobs, moving to another house, relational crisis in work or private life)?	□ No	□ Yes
18.	tried to reduce tensions by using alcohol, tobacco, drugs or medication?	□ No	□ Yes
19.	• missed supportive people near you that you could readily count on for help in times of difficulty (such as emotional support, watch over children or pets, give rides to hospital or store, help when you are sick)?	□ No	□Yes
20.	During <u>your childhood</u> (0-18 years), did you experience any traumatic life events (e.g., a serious accident or fire, physical or sexual assault or abuse, a disaster, seeing someone be killed or seriously injured, or having a loved one die)?	□ No	□Yes
21.	Have you <u>ever</u> received a psychiatric diagnosis or have you ever been treated for psychological problems (for example, depression, anxiety or a personality disorder)?	□ No	□Yes
22.	Do you generally consider yourself to be a resilient person?	□ No	☐ Yes
23.	How would you rate your present functioning (at work/home)? Poor 1 2 3 4 5 6 7 8 9 10 Excellent		
23.			
	POUL I Z 3 4 5 6 / 8 9 10 Excellent		

^{© 2016/2020,} Global Psychotrauma Screen 2.0 Olff & Bakker, Global Collaboration on Traumatic Stress, https://www.global-psychotrauma.net/gps



Appendix 2. GPS symptoms and subdomain scores

	FEMALE (N=6609) M	MALE (N=2132)	TOTAL (N=8741)
	(SD)	M (SD)	M (SD)
GPS_SYMPTOMS	8.48 (4.66)	6.45 (4.80)	7.99 (4.78)
GPS_PTSD	2.75 (1.7)	2.05 (1.7)	2.6 (1.75)
GPS_DSO	0.92 (0.8)	0.68 (0.78)	0.86 (0.8)
GPS_CPTSD	3.64 (2.24)	2.73 (2.24)	3.43 (2.31)
GPS_ANXIETY	1.36 (0.78)	1.06 (0.84)	1.28 (0.82)
GPS_DEPRESSION	1.24 (0.84)	0.98 (0.86)	1.18 (0.86)
GPS_INSOMNIA	0.61 (0.49)	0.47 (0.5)	0.58 (0.49)
GPS_SELF-HARM	0.12 (0.32)	0.07 (0.25)	0.1 (0.31)
GPS_DISSOCIATION	0.54 (0.76)	0.38 (0.66)	0.5 (0.74)
GPS_SUBSTANCEABUSE	0.33 (0.47)	0.31 (0.46)	0.33 (0.47)
GPS_OTHERPROBLEMS	0.6 (0.49)	0.44 (0.5)	0.56 (0.5)
"GPS_RISKPROTECT"	3.25 (1.50)	2.79 (1.73)	3.14 (1.57)



Appendix 3. GPS symptoms scores per country

Means and SDs for GPS symptom score of males and females for countries with sample sizes > 100

Country	Gender	Number of	GPS symptom	Standard
		respondents	score (Mean)	
Armenia	Male	90	7.63	4.19
	Female	246	8.61	3.44
	Total	336	8.35	3.68
Australia	Male	40	7.38	5.44
	Female	143	9.24	4.87
	Total	183	8.83	5.04
Austria	Male	48	3.98	3.88
	Female	125	6.14	4.26
	Total	173	5.54	4.26
Belgium	Male	75	5.45	4.49
	Female	199	7.57	4.52
	Total	274	6.99	4.60
Brazil	Male	154	6.40	4.75
	Female	556	8.02	4.30
	Total	710	7.67	4.44
Canada	Male	27	8.19	5.39
	Female	244	10.01	4.36
	Total	271	9.83	4.50
Chile	Male	48	8.31	3.91
	Female	116	10.09	4.10
	Total	164	9.57	4.11
China	Male	167	7.36	4.75
	Female	326	6.81	4.80
	Total	493	7.00	4.78
Croatia	Male	33	6.45	4.49
	Female	245	7.53	4.00
	Total	278	7.41	4.07
Cyprus	Male	33	5.82	4.15
	Female	96	6.72	4.67
	Total	129	6.49	4.55
France	Male	55	8.07	4.70
	Female	296	9.24	4.70
	Total	351	9.06	4.71
Georgia	Male	48	7.08	4.08
Coorgia	Female	65	7.38	4.06
	Total	113	7.26	4.06
Germany	Male	27	7.56	5.85
	Female	207	10.53	4.90
	Total	234	10.18	5.09



Greece	Male	68	5.15	3.90
	Female	190	6.01	3.81
	Total	258	5.78	3.84
India	Male	63	5.57	3.95
	Female	118	7.18	4.55
	Total	181	6.62	4.41
Indonesia	Male	128	7.16	4.58
	Female	452	8.13	4.53
	Total	580	7.92	4.56
Italy	Male	27	6.30	4.17
	Female	103	7.04	4.08
	Total	130	6.88	4.09
Japan	Male	41	4.90	3.94
	Female	99	5.42	4.41
	Total	140	5.27	4.27
Netherlands	Male	79	6.32	4.61
	Female	163	7.18	4.85
	Total	242	6.90	4.78
Norway	Male	14	8.29	4.58
	Female	164	8.29	4.93
	Total	178	8.29	4.89
Poland	Male	29	9.10	5.47
	Female	259	10.57	4.17
	Total	288	10.42	4.33
Portugal	Male	152	5.48	4.82
	Female	142	6.47	4.48
	Total	294	5.96	4.67
Russian	Male	221	2.72	3.64
Federation	Female	224	5.06	4.07
	Total	445	3.90	4.03
South Africa	Male	29	6.55	4.15
	Female	185	9.55	4.69
	Total	214	9.14	4.72
Turkey	Male	32	7.97	4.80
	Female	111	8.16	3.90
	Total	143	8.12	4.10
UK and Northern	Male	25	6.88	4.76
Ireland	Female	79	9.58	4.67
	Total	104	8.93	4.81
United States of	Male	193	9.44	4.57
America	Female	977	10.69	4.28
	Total	1170	10.48	4.36



Appendix 4. SPSS Syntax

SPSS Syntax for calculating GPS symptom and subdomain scores

*GPS subdomain mean scores.

COMPUTE GPS PTSD=SUM(GPS1,GPS2,GPS3,GPS4,GPS5)/5.

EXECUTE.

COMPUTE GPS_DSO=SUM(GPS6,GPS7)/2.

EXECUTE.

COMPUTE GPS CPTSD= SUM(GPS1,GPS2,GPS3,GPS4,GPS5,GPS6,GPS7)/7.

EXECUTE.

COMPUTE GPS_Anx=SUM(GPS8,GPS9)/2.

EXECUTE.

COMPUTE GPS_Depr=SUM(GPS10,GPS11)/2.

EXECUTE.

COMPUTE GPS_Insomnia=SUM(GPS12).

EXECUTE.

COMPUTE GPS Selfharm=SUM(GPS13).

EXECUTE.

COMPUTE GPS Dissoc=SUM(GPS14, GPS15)/2.

EXECUTE.

COMPUTE GPS Substance=GPS18.

EXECUTE.

COMPUTE GPS_Otherproblems=GPS16.

EXECUTE.

VARIABLE LABELS GPS PTSD'GPS PTSD'.

VARIABLE LABELS GPS Anx 'GPS Anxiety'.

VARIABLE LABELS GPS Depr 'GPS Depression'.

VARIABLE LABELS GPS DSO 'GPS PTSD DSO'.

VARIABLE LABELS GPS CPTSD 'GPS CPTSD'.

VARIABLE LABELS GPS_Insomnia 'GPS Insomnia'.

VARIABLE LABELS GPS_Selfharm 'GPS Self harm'.

VARIABLE LABELS GPS Dissoc 'GPS Dissociation'.

VARIABLE LABELS GPS_Otherproblems 'GPS Other problems'.

EXECUTE.

*GPS symptom scores.

COMPUTE GPS Sym = sum(gps1 to gps16) + gps18.

EXECUTE.

VARIABLE LEVEL GPS_Sym(SCALE).

*GPS Risk-protective factors.

** Note that when using the GPS app data the GPS22 (resilience item) has already been recoded, for hand coding see scoring instructions above).

COMPUTE RiskNrFactors = GPS17 + GPS19 + GPS20 + GPS21 + GPS22.

EXECUTE.