

Global Psychotrauma Screen (GPS)

User guide November 2022

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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:
 - 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
- It 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.
- Á '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, and 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 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

Functioning (1 item)



GPS languages

The GPS is currently available in over 30 languages. 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.

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



For languages in blue the GPS is available through the GPS app For all languages a pdf can be downloaded Afrikaans: take GPS app_ or download pdf

Amharic: download pdf
Arabic: download pdf

Armenian: take GPS app or download pdf
Chinese: take GPS app or download pdf
Croatian: take GPS app or download pdf
Dutch: take GPS app or download pdf

English: take GPS app or download pdf or <<audio>>

Farsi/Persian: download pdf

French: take GPS app or download pdf Georgian: take GPS app or download pdf German: take GPS app or download pdf Greek: take GPS app or download pdf

Hausa: download pdf **Hebrew:** download pdf

Indonesian: take GPS app or download pdf
Italian: take GPS app or download pdf
Japanese: take GPS app or download pdf
Norwegian: take GPS app or download pdf
Polish: take GPS app or download pdf

Portuguese (Europe): take GPS app or download pdf Portuguese (Brazil): take GPS app or download pdf

Russian: take GPS app or download pdf Slovak: take GPS app or download pdf Spanish: take GPS app or download pdf

Spanish (Argentinian): take GPS app or download pdf

Swahili: download pdf

Turkish: take GPS app or download pdf

Ukrainian: download pdf
Xhosa: download pdf
Yoruba: download pdf

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

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

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

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

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.

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 1 & 2*. See appendix 4 for a detailed SPSS Syntax.

Cutoff scores

Cutoff scores (Table 1) are provided to detect specific disorders with optimal sensitivity relative to specificity¹, based on the currently available published and unpublished studies (find them here). In situations where it is important to minimize false positives, a higher cutoff score might be considered.

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 1. Scoring of subdomains scores

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

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.



Table 2. Scoring total scores

TRANSDIAGBOSTIC OVERALL SYMPTOM BURDEN		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

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 https://www.global-psychotrauma.net/data-sets).

Ongoing research using the GPS

An overview of ongoing studies can be found <u>here</u>.



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Appendices

Appendix 1. GPS English version

Global Psychotrauma Screen (GPS)	 	entification Number
Gender	☐ Male	□ Other
Age (years)		
Sometimes things happen to people that are unusually or especi horrible, or traumatic.	ally frighte	ening,
Briefly describe the event or experience that currently affects you the most:		
This event happened: ☐ last month ☐ last half year ☐ last year ☐ lor	iger ago	
This event: ☐ was a single event occurring, at age ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	_ _	
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 Emotional abuse: ☐ to yourself ☐ happened to someone else Serious injury: ☐ to yourself ☐ happened to someone else Life threatening: ☐ to yourself ☐ happened to someone else		
 □ Sudden death of a loved one □ You causing harm to someone else □ Corona virus (COVID-19) 		
Considering the above event, <u>in the past month</u> have you		
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 out of 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 surroundings?	□ No	□ Yes
felt guilty or unable to stop blaming yourself or others for past traumatic life event(s) or any problems the event(s) caused?	□ 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 your childhood (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 Excellen	t	

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Appendix 2. GPS symptoms and subdomain scores

	FEMALE (N=6132) M (SD)	MALE (N=1998) M	TOTAL (N=8130) M
		(SD)	(SD)
GPS_SYMPTOMS	8.30 (4.67)	6.30 (4.77)	7.81 (4.77)
GPS_PTSD	0.54 (0.34)	0.40 (0.34)	0.50 (0.35)
GPS_DSO	0.45 (0.40)	0.33 (0.39)	0.42 (0.40)
GPS_CPTSD	0.51 (0.32)	0.38 (0.32)	0.48 (0.32)
GPS_ANXIETY	0.67 (0.40)	0.52 (0.42)	0.63 (0.41)
GPS_DEPRESSION	0.62 (0.42)	0.48 (0.43)	0.58 (0.43)
GPS_INSOMNIA	0.60 (0.49)	0.46 (0.50)	0.57 (0.50)
GPS_SELF-HARM	0.11 (0.31)	0.06 (0.24)	0.10 (0.30)
GPS_DISSOCIATION	0.26 (0.37)	0.19 (0.33)	0.24 (0.36)
GPS_SUBSTANCEABUSE	0.32 (0.47)	0.30 (0.46)	0.31 (0.46)
GPS_OTHERPROBLEMS	0.59 (0.49)	0.42 (0.49)	0.55 (0.50)
"GPS_RISKPROTECT"	3.22 (1.53)	2.75 (1.74)	3.10 (1.60)



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 RESPONDENTS	GPS SYMPTOM SCORE (MEAN)	STANDARD DEVIATION
ARMENIA	Male	81	7.52	4.29
	Female	231	8.58	3.48
	Total	312	8.30	3.73
AUSTRALIA	Male	37	6.97	5.43
	Female	113	8.78	5.06
	Total	150	8.33	5.20
AUSTRIA	Male	48	3.98	3.88
	Female	125	6.14	4.26
	Total	173	5.54	4.26
BELGIUM	Male	74	5.35	4.43
	Female	197	7.54	4.51
	Total	271	6.94	4.58
BRAZIL	Male	153	6.40	4.76
	Female	556	8.02	4.30
	Total	709	7.67	4.45
CANADA	Male	23	7.91	5.37
	Female	223	9.93	4.34
	Total	246	9.74	4.47
CHILE	Male	44	8.39	4.04
	Female	116	10.09	4.10
	Total	160	9.63	4.14
CHINA	Male	167	7.36	4.75
	Female	326	6.81	4.80
	Total	493	7.00	4.78
CROATIA	Male	32	6.56	4.51
	Female	243	7.51	4.01
	Total	275	7.40	4.07
CYPRUS	Male	33	5.82	4.15
	Female	96	6.72	4.67
	Total	129	6.49	4.55
FRANCE	Male	52	8.21	4.52
	Female	283	9.13	4.73
	Total	335	8.99	4.70
GEORGIA	Male	48	7.08	4.08
	Female	65	7.38	4.06
	Total	113	7.26	4.06
GERMANY	Male	22	7.95	5.92
	Female	190	10.58	4.89
	Total	212	10.31	5.06
GREECE	Male	68	5.15	3.90



	Female	190	6.01	3.81
	Total	258	5.78	3.84
INDIA	Male	61	5.52	3.91
INDIA	Female	116	7.18	4.52
	Total	177	6.61	4.38
INDONESIA	Male	127	7.21	4.56
INDONESIA	Female	450	8.14	4.53
	Total	577	7.93	4.55
ITALY	Male	26	6.31	4.25
IIALI	Female	102	7.05	4.23
	Total	128	6.90	4.10
JAPAN	Male	39	4.51	3.63
JAPAN	Female	93	5.45	4.27
	Total	132	5.17	4.10
NETHERLANDS	Male	70	6.54	4.10
NETHERLANDS			7.12	4.92
	Female Total	156 226	6.94	4.92
NORWAY		14	8.29	4.58
NORWAY	Male Female	162	8.29	4.58
				4.95
POLAND	Total Male	176 28	8.29 9.07	5.56
POLAND				
	Female	255	10.59	4.18
DORTHON	Total	283	10.44	4.35
PORTUGAL	Male	149	5.44	4.79
	Female	142	6.47	4.48
DUCCIAN	Total	291	5.94	4.66
RUSSIAN FEDERATION	Male	219	2.60	3.43
	Female	222	5.01	4.01
COUTH AFRICA	Total	441	3.81	3.92
SOUTH AFRICA	Male Female	28	6.75	4.09
		182	9.53	4.72
TUDVEV	Total	210	9.16	4.72
TURKEY	Male	31	8.06	4.84
	Female	111	8.16	3.90
LINUTED CTATES OF	Total	142	8.14	4.10
UNITED STATES OF AMERICA	Male	141	9.23	4.72
	Female	677	10.53	4.42
	Total	818	10.31	4.50



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.