GLOBAL COLLABORATION on Traumatic Stress

Global Psychotrauma Screen (GPS)

User guide
May 2024

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 GPS domains 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 domains

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 domains

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

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
Bemba		download pdf
Burmese		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 <<**audio**>>
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
Haitian		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
Romanian		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

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.

The GPS app

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

Global Psychotrauma Screen
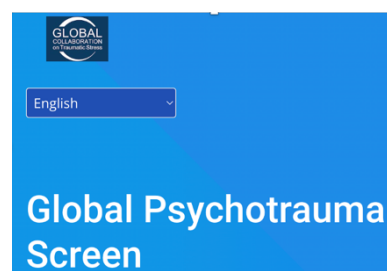
Collecting GPS data for research or clinical use

Researchers and clinicians may get a private portal for access to GPS app data. Please contact us if you are interested: gc.traumaticstress@gmail.com

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 Web-app 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 GPS domain scores

GPS total and domain scores can be calculated see *Tables 2 & 3*. Please find a Scoring sheet in **Appendix 2**. See **Appendix 5** for a detailed SPSS Syntax.

Cutoff scores

Cutoff scores (Table 2) are provided to detect specific disorders with optimal sensitivity relative to specificity[1], 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 domains is followed up with more detailed assessments, e.g., with structured interviews for specific disorders.

A **scoring sheet** can be found in **Appendix 2.**

Table 2. Scoring of domains

TRAUMA RELATED DISORDERS OR PROBLEMS (DOMAINS)	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. GPS symptom score > 11 indicate moderate to severe symptom levels. Mean scores per country are provided in **Appendix 4.**
RISK & PROTECTIVE FACTORS		

[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.

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.

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 domains (Belquaid et al., 2023; Frewen et al., 2021; Grace et al., 2023; Haering et al., 2024; Marengo et al., 2022; Olff et al., 2020, 2021; Oe et al., 2020; Primasari et al., 2024; Rossi et al., 2020; Rossi et al., 2021; Salimi et al., 2023). 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 domain scores per gender aggregated from countries with samples sizes >100 are listed in **Appendix 3.** Means and SDs for GPS symptom scores of male and female respondents in specific countries with sample sizes > 100 are listed in **Appendix 4.**

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, raw data on the FAIR data sets page.

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Contact details

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

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Appendices

Appendix 1. GPS English version

Global Psychotrauma Screen (GPS)	|_|_|_|_|_|_| **Participant Identification Number**

Gender	☐ Female	☐ Male ☐ Other

Age (years)	|_|_|_|

Sometimes things happen to people that are unusually or especially frightening, horrible, or traumatic.

Briefly describe the event or experience that currently affects you the most:

……..

This event happened: ☐ last month   ☐ last half year   ☐ last year   ☐ longer ago

This event:
☐ was a single event occurring, at age |_|_|
☐ happened during a longer period / multiple times, between ages |_|_| 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
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….

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
2.	… 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
5.	… 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 *ever* 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		

Appendix 2. GPS scoring sheet

PTSD (3 items required for probable PTSD)	Past month
	Symptoms endorsed
Item 1	0 = NO 1 = YES
Item 2	0 = NO 1 = YES
Item 3	0 = NO 1 = YES
Item 4	0 = NO 1 = YES
Item 5	0 = NO 1 = YES
PTSD domain score	Number of symptoms =

DSO (1 item required for probable DSO)	Past month
	Symptoms endorsed
Item 6	0 = NO 1 = YES
Item 7	0 = NO 1 = YES
DSO domain score	Number of symptoms =

ANXIETY (1 item required for probable ANXIETY)	Past month
	Symptoms endorsed
Item 8	0 = NO 1 = YES
Item 9	0 = NO 1 = YES
ANXIETY domain score	Number of symptoms =

DEPRESSION (1 item required for probable DEPRESSION)	Past month
	Symptoms endorsed
Item 10	0 = NO 1 = YES
Item 11	0 = NO 1 = YES
DEPRESSION domain score	Number of symptoms =

INSOMNIA (1 item required for probable INSOMNIA)	Past month
	Symptoms endorsed
Item 12	0 = NO 1 = YES
INSOMNIA domain score	Number of symptoms =

SELF-HARM (1 item required for possible problems)	Past month
	Symptoms endorsed
Item 13	0 = NO 1 = YES
SELF-HARM domain score	Number of symptoms =

DISSOCIATION (1 item required for probable DISSOCIATION)	Past month
	Symptoms endorsed
Item 14	0 = NO 1 = YES
Item 15	0 = NO 1 = YES
DEPRESSION domain score	Number of symptoms =

SUBSTANCE ABUSE (1 item required for possible problems)	Past month
	Symptoms endorsed
Item 18	0 = NO 1 = YES
SUBSTANCE ABUSE domain score	Number of symptoms =

OTHER PROBLEMS (1 item required for possible problems)	Past month
	Symptoms endorsed
Item 16	0 = NO 1 = YES
OTHER PROBLEMS domain score	Number of symptoms =

COMPLEX PTSD (4 items required for possible COMPLEX PTSD)	Past month
	Symptoms endorsed
Sum PTSD and DSO domain scores	Number of symptoms =

RISK FACTORS	Past month
	Risk factors endorsed
Sum item 17 + item 19-22	Number of risk factors =

GPS symptom score	Past month
	Symptoms endorsed
Sum item 1-16 + item 18	Number of symptoms =
Moderate-severe symptoms (GPS symptom score > 11)	0 = NO 1 = YES

Summary sheet	Past month
Probable PTSD (PTSD DOMAIN > 2)	0 = NO 1 = YES
Probable DSO (DSO DOMAIN > 0)	0 = NO 1 = YES
* Probable COMPLEX PTSD (COMPLEX PTSD DOMAIN > 4)	0 = NO 1 = YES
Probable ANXIETY (ANXIETY DOMAIN > 0)	0 = NO 1 = YES
* Probable DEPRESSION (DEPRESSION DOMAIN > 0)	0 = NO 1 = YES
Probable INSOMNIA (INSOMNIA DOMAIN > 0)	0 = NO 1 = YES
Probable DISSOCIATION (DISSOCIATION DOMAIN > 0)	0 = NO 1 = YES
Possible SELF-HARM (SELF-HARM DOMAIN > 0)	0 = NO 1 = YES
Possible SUBSTANCE ABUSE (SUBSTANCE ABUSE DOMAIN > 0)	0 = NO 1 = YES
Possible OTHER PROBLEMS (OTHER PROBLEMS DOMAIN > 0)	0 = NO 1 = YES

* NOTES FOR USE IN INDONESIA	
Propable COMPLEX PTSD cut-off	5 items required
Probable DEPRESSION cut-off	2 items required

Appendix 3. GPS symptoms and domain scores (16 Feb 2024)

	Female (n=7715) M (SD)	Male (n=2424) M (SD)	Other gender (n=160) M (SD)	Total (n=10299) M (SD)
GPS_Symptoms	8.80 (4.65)	6.78 (4.83)	11.99 (4.03)	8.38 (4.78)
GPS_PTSD	0.57 (0.34)	0.43 (0.34)	0.74 (0.29)	0.54 (0.34)
GPS_DSO	0.48 (0.40)	0.37 (0.40)	0.65 (0.34)	0.45 (0.40)
GPS_CPTSD	0.55 (0.32)	0.41 (0.32)	0.72 (0.26)	0.52 (0.32)
GPS_Anxiety	0.70 (0.39)	0.55 (0.42)	0.82 (0.33)	0.66 (0.40)
GPS_Depression	0.64 (0.41)	0.50 (0.43)	0.82 (0.33)	0.61 (0.42)
GPS_Insomnia	0.62 (0.48)	0.50 (0.50)	0.79 (0.41)	0.60 (0.49)
GPS_Self-harm	0.12 (0.33)	0.08 (0.27)	0.38 (0.49)	0.12 (0.38)
GPS_Dissociation	0.29 (0.38)	0.21 (0.35)	0.59 (0.44)	0.28 (0.38)
GPS_SubstanceAbuse	0.36 (0.48)	0.32 (0.47)	0.51 (0.50)	0.35 (0.48)
GPS_OtherProblems	0.62 (0.49)	0.46 (0.50)	0.83 (0.38)	0.59 (0.49)
GPS_RiskProtect	3.31 (1.45)	2.85 (1.71)	4.14 (0.91)	3.22 (1.53)

Appendix 4. GPS symptoms scores per country (16 Feb 2024)

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	91	7.57	4.21
	Female	251	8.71	3.53
	Total	343	8.41	3.74
Australia	Male	58	8.16	5.19
	Female	199	9.58	4.83
	Total	261	9.31	4.93
Austria	Male	49	4.16	4.05
	Female	127	6.22	4.29
	Total	178	5.68	4.34
Belgium	Male	77	5.62	4.56
	Female	200	7.58	4.51
	Total	277	7.04	4.60
Brazil	Male	155	6.37	4.75
	Female	561	8.02	4.32
	Total	716	7.67	4.46
Canada	Male	41	8.56	5.02
	Female	306	10.30	4.23
	Total	360	10.19	4.33
Chile	Male	49	8.14	4.05
	Female	116	10.09	4.10
	Total	165	9.52	4.17
China	Male	169	7.40	4.74
	Female	329	6.84	4.83
	Total	498	7.03	4.80
Croatia	Male	32	6.56	4.51
	Female	245	7.53	4.00
	Total	277	7.42	4.07
Cyprus	Male	33	5.82	4.15
	Female	97	6.75	4.66
	Total	130	6.52	4.54
France	Male	63	8.52	4.67
	Female	315	9.38	4.69
	Total	381	9.28	4.69
Georgia	Male	48	7.08	4.08
	Female	65	7.38	4.06
	Total	113	7.26	4.06
Germany	Male	34	7.82	5.59
	Female	227	10.46	4.82
	Total	265	10.15	4.98
Greece	Male	69	5.22	3.92
	Female	193	6.07	3.83

Country	Gender	Number of respondents	GPS symptom score (mean)	Standard deviation
	Total	262	5.85	3.86
India	Male	69	6.09	4.29
	Female	136	7.76	4.67
	Total	207	7.29	4.67
Indonesia	Male	138	7.01	4.50
	Female	456	8.18	4.53
	Total	598	7.93	4.55
Italy	Male	29	6.72	4.33
	Female	104	7.02	4.07
	Total	133	6.95	4.11
Japan	Male	41	4.61	3.85
	Female	94	5.55	4.36
	Total	135	5.27	4.22
Netherlands	Male	86	6.35	4.46
	Female	180	7.21	4.78
	Total	271	7.04	4.77
Norway	Male	15	8.33	4.42
	Female	167	8.40	4.95
	Total	182	8.39	4.90
Poland	Male	32	9.28	5.34
	Female	266	10.60	4.15
	Total	315	10.54	4.31
Portugal	Male	152	5.48	4.82
	Female	143	6.47	4.46
	Total	295	5.96	4.67
Russian Federation	Male	222	2.75	3.66
	Female	226	5.09	4.05
	Total	448	3.93	4.03
South Africa	Male	31	6.55	4.03
	Female	195	9.58	4.61
	Total	227	9.17	4.64
Turkey	Male	31	8.06	4.84
	Female	113	8.27	3.94
	Total	145	8.21	4.12
Ukraine	Male	17	8.47	3.08
	Female	107	8.72	3.84
	Total	127	8.80	3.76
United Kingdom of Great Britain and Northern Ireland	Male	32	7.50	4.49
	Female	116	9.78	4.47
	Total	152	9.40	4.56
United States of America	Male	333	9.58	4.46
	Female	1642	10.86	4.14
	Total	2051	10.70	4.21

Appendix 5. SPSS Syntax

SPSS Syntax for calculating GPS symptom and domain scores

*GPS domain 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.