Global Psychotrauma Screen (GPS)

User guide
September 2021

The GPS in short
- The Global Psychotrauma Screen (GPS) is a screening instrument designed to identify reactions to a severe stressor / potentially traumatic event (17 yes/no questions)
- It also assesses risk or protective factors known to influence the development or course of symptoms (5 yes/no questions).
- The GPS begins with questions about the event or experience.
- It can be used in different settings such as in primary care, after disasters, or in clinical practice.
- The app provides direct feedback on the scores.
- Scoring positive above the cutoff or on certain domains (e.g. of posttraumatic stress disorder (PTSD)) 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 tap the potential wide range of acute or long-term consequences of very stressful / potentially traumatic events. The instrument should screen for more PTSD symptoms alone (see domains below). It was to be used in different 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, and 5 risk/protective factor questions, each answered in a yes/no format, and one functioning item.
The English version is attached (Appendix 1). See website (https://www.global-psychotrauma.net/gps) for other languages.

The symptom domains covered in the GPS are:
- 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 assessed are:
- Other stressful events
- Childhood trauma

- History of mental illness
- Social support
- Psychological resilience

The GPS app

The GPS is available in the underlined languages below through the GPS webapp (see https://www.global-psychotrauma.net/gps). The app allows to easily fill out the GPS and to receive immediate feedback on scores. Not all languages are available yet through the app, in those cases a pdf can be obtained through the website.
The GPS app version in addition to the 22 yes/no items also asks about the type of event and includes an item on functioning.

The GPS is currently available in 27 languages (for links to work go to the website):

Afrikaans	Italian
Arabic	Japanese
Armenian	Norwegian
Chinese	Polish
Croatian	Portuguese (European)
Dutch	Portuguese (Brazilian)
English	Russian
Farsi/Persian	Slovak
French	Spanish
Georgian	Spanish (Argentinian)
German	Swahili
Greek	Turkish
Hebrew	Xhosa
Indonesian	more African languages soon

The English version has been translated into the languages listed above following the translation and cultural adaptation process by Sousa and Rojjanasrirat (2011).

Collect your own GPS data

For researchers and clinicians there is the possibility to get access to GPS app data collected through your own portal. Please contact us if you are interested.

Scoring instructions

Several scores can be calculated. "GPS symptoms" is the sum score of all symptom items. "GPS Risk & Protective Factors is the sum score of all the risk and protective factors. Subdomain scores are all mean item scores of the subdomain.

Scoring GPS items 1-21: No=0; Yes=1. GPS Item 22: No=1; Yes=0.   (Note that in the GPS app data GPS22 is already recoded)

- "**GPS_Symptoms**": Sum of items 1-16 + 18 (range 0-17).
- "**GPS_PTSD**" Sum of items 1-5 (range 0-5).
- "**GPS_DSO**" Sum of items 6-7 (range 0-2).
- "**GPS_CPTSD"** Sum of "GPS_PTSD" and "GPS_DSO" (range 0-7).
- "**GPS_Anxiety**" Sum of items 8-9 (range 0-2).
- "**GPS_Depression**" Sum of items 10-11 (range 0-2).
- "**GPS_Insomnia**" Items 12 (range 0-1).
- "**GPS_Self-harm**" Item 13 (range 0-1).
- "**GPS_Dissociation**" Sum of items 14-15 (range 0-2).
- "**GPS_SubstanceAbuse**" Item 18 (range 0-1).
- "**GPS_OtherProblems"** Item 16 (range 0-1).
- "**GPS_RiskProtect**" Sum of items 17 + 19-22r (range 0-5).

For researchers: SPSS syntax files are attached in Appendix 4.

GPS items 1 through 5 - stemming from the PC-PTSD-5 (Prins et al., 2016) - may be summed up to derive a total PTSD score (possible scores range from 0 to 5). A score of 3 or higher indicates possible PTSD with maximized sensitivity.

Preliminary data suggest that a cutoff 8 or 9 on the total symptoms score is indicative of PTSD (Frewen et al., 2021/in press, Haghi et al., under review), with 8 for maximized sensitivity, 9 for higher specificity.

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

Norm scores and psychometric properties

Ongoing research suggests good internal reliability as well as concurrent validity with instruments measuring a range of psychotrauma related symptom domains (Olff et al., 2020 & 2021, Oe et al., 2020; Rossi et al., 2020; Rossi et al., 2021; Frewen et al., 2021/in press).

Cross cultural norm data have been collected in a large sample of over 7000 participants (Olff et al., 2021). Scores per gender in countries with samples sizes >100 are listed in Appendix 2. Means and SDs for GPS symptom score of males and females for 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).

References

Frewen, P., McPhail, I, Schnyder, U., Oe, M., Olff, M. (2021/in press). **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

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

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), doi 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), 1752504 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/in press). **Mental Health Responses to COVID-19 around the World.** *European Journal of Psychotraumatology*, 12(1), https://doi.org/10.1080/20008198.2021.19297544

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. 2020;3(5):e2010185. doi:10.1001/jamanetworkopen.2020.10185

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 cross-cultural health care research: a clear and user-friendly guideline**. *Journal of Evaluation in Clinical Practice* 17 , 268–274

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		

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Appendix 2. GPS symptoms and subdomain scores

Means and SDs GPS symptoms and subdomain scores

	Female (n=5613) M (SD)	Male (n=1863) M (SD)	Total (n=7476) M (SD)
GPS_Symptoms	8.06 (4.64)	6.07 (4.70)	7.59 (4.74)
GPS_PTSD	.52 (.34)	.38 (.33)	.49 (.35)
GPS_DSO	.44 (.40)	.32 (.38)	.41 (.40)
GPS_CPTSD	.50 (.32)	.37 (.32)	.47 (.32)
GPS_Anxiety	.66 (.40)	.51 (.42)	.62 (.41)
GPS_Depression	.60 (.42)	.47 (.43)	.57 (.43)
GPS_Insomnia	.59 (.49)	.45 (.50)	.55 (.50)
GPS_Self-harm	.10 (.30)	.06 (.23)	.09 (.29)
GPS_Dissociation	.25 (.36)	.18 (.32)	.23 (.35)
GPS_SubstanceAbuse	.30 (.46)	.28 (.45)	.30 (.46)
GPS_OtherProblems	.57 (.50)	.41 (.49)	.53 (.50)
"GPS_RiskProtect"	3.17 (1.54)	2.70 (1.76)	3.07 (1.61)

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	230	8.61	3.44
	Total	311	8.33	3.70
Australia	Male	27	5.70	4.89
	Female	100	8.53	5.17
	Total	128	7.98	5.23
Austria	Male	48	3.98	3.88
	Female	123	6.09	4.23
	Total	173	5.53	4.27
Belgium	Male	72	5.33	4.41
	Female	194	7.53	4.52
	Total	266	6.94	4.58
Brazil	Male	152	6.35	4.74
	Female	554	8.00	4.29
	Total	706	7.64	4.44
Canada	Male	18	6.83	5.10
	Female	195	9.78	4.34
	Total	220	9.64	4.47
Chile	Male	39	8.15	4.08
	Female	105	10.01	4.10
	Total	144	9.51	4.16
China	Male	167	7.36	4.75
	Female	322	6.79	4.81
	Total	489	6.98	4.79
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	95	6.62	4.60
	Total	128	6.41	4.49
France	Male	47	8.00	4.70
	Female	257	8.87	4.71
	Total	306	8.77	4.72
Georgia	Male	48	7.08	4.08
	Female	65	7.38	4.06
	Total	113	7.26	4.06
Germany	Male	20	8.10	5.84
	Female	154	9.88	5.05
	Total	177	9.69	5.13

Country	Gender	Number of respondents	GPS symptom score (Mean)	Standard deviation
Greece	Male	66	5.24	3.92
	Female	187	6.00	3.83
	Total	253	5.80	3.86
India	Male	57	5.18	3.73
	Female	111	6.90	4.39
	Total	168	6.32	4.25
Indonesia	Male	101	7.37	4.65
	Female	396	8.34	4.55
	Total	501	8.16	4.58
Italy	Male	26	6.31	4.25
	Female	102	7.05	4.10
	Total	128	6.90	4.12
Japan	Male	38	4.45	3.65
	Female	92	5.36	4.20
	Total	130	5.09	4.05
Netherlands	Male	62	6.32	4.62
	Female	149	7.07	4.98
	Total	215	6.96	4.97
Norway	Male	13	8.00	4.64
	Female	160	8.24	4.93
	Total	173	8.22	4.90
Poland	Male	26	8.65	5.51
	Female	248	10.58	4.20
	Total	290	10.46	4.37
Portugal	Male	149	5.44	4.79
	Female	139	6.45	4.49
	Total	288	5.93	4.67
Russian Federation	Male	219	2.60	3.43
	Female	222	5.01	4.01
	Total	441	3.81	3.92
South Africa	Male	28	6.75	4.09
	Female	179	9.45	4.70
	Total	207	9.08	4.70
Spain	Male	12	6.33	3.92
	Female	78	7.32	4.31
	Total	90	7.19	4.25
Turkey	Male	31	8.06	4.84
	Female	110	8.14	3.91
	Total	142	8.11	4.10
United States of America	Male	94	8.34	4.77
	Female	439	9.94	4.66
	Total	543	9.66	4.71

Appendix 4 SPSS Syntax

SPSS Syntax for calculating GPS symptom and subdomain scores

*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.

*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.