# Global Psychotrauma Screen (GPS)

## User guide
June 2021

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**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.

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## 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).

**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.

## References

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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, 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 |
|---|---|---|---|
| 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 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.