

Supplementary materials: the study analysis

Stage I: Exploratory and confirmatory factor analysis

Stage II: Structural equation models

## **Stage 1: Exploratory and Confirmatory Factor Analysis**

Statistical analyses were carried out in the R software environment for statistical computing and graphics, Version 4.2.3. The 'psych' package (Revelle, 2017) was employed to generate descriptive statistics and perform exploratory factor analysis (EFA). The 'lavaan' package (Rosseel, 2012) was used to conduct both confirmatory factor analysis (CFA) and Structural Equation Modelling (SEM).

A total of 22 different measures were considered in this analysis. The data were randomly separated into two sample groups ( $n=5191$ ) for measures that employed both EFA and CFA. Measures that were only evaluated using CFA utilised the complete data ( $N=10382$ ). The Kaiser-Meyer-Olkin (KMO) index measures sampling adequacy with values ranging between 0 and 1 (Kaiser, 1970). Values closer to 1 suggest that the data will likely recover latent factor(s) based on the correlation matrix (Williams et al., 2010). Thus, the KMO value is reported as necessary when an EFA is employed. A parallel analysis ( $n$  iterations = 1,000) was subsequently conducted using the principle axis factor analysis to determine latent dimensionality.

Most EFAs were conducted using person correlations, oblique rotation and the minimum residual (MINRES) estimator. The tetrachoric correlations were used for measures with binary data. The MINRES approach achieves a factor solution by minimising the residuals of the correlation matrix and obtaining communalities for the items (Harman & Jones, 1966). It provides reliable factor solutions even when the data exhibit non-normality. The factors for all EFA models were extracted using oblimin rotation.

To circumvent potential non-normality issues inherent in our data, we employed the robust maximum likelihood estimator with Huber-White standard errors and a scaled test statistics to estimate the CFA models. Recognising that specific measures had dichotomous response options, we used the Diagonal Weighted Least Squares (DWLS) method for our estimations. This technique is designed for handling categorical data within CFA, adeptly dealing with non-normal distributions often linked with binary variables.

Indicators of poor fit, such as low factor loadings ( $<0.4$ ) and inadequate theoretical alignment with factors, were used as criteria to assess the adequacy of EFA and CFA models. For assessing the goodness of fit of CFA models, the root mean square error of approximation (RMSEA) and the standardised root mean square residual (SRMR) are considered, where a desirable fit is achieved when both the RMSEA and SRMR values are below 0.08 (Kline, 2005). Moreover, additional fit indices such as the comparative fit index (CFI) and Tucker-Lewis Index (TLI) are taken into account. Kline (2023) suggests that these indices should surpass the threshold of 0.90. Additionally, to establish a good fit between the model and the data, the RMSEA should be less than 0.06, while the CFI and TLI should exceed 0.95, as proposed by Hu and Bentler (1999).

Factor analysis reliability refers to the measurement of internal consistency or reliability of the factors extracted through factor analysis (Bentler, 1968). It assesses how well the observed variables within each factor consistently measure the underlying construct, enabling more detailed information on the scale's internal consistency. The resulting composite reliability value ranges from 0 to 1, with higher values indicating greater internal consistency and reliability of the latent construct. A composite reliability value of 0.7 or higher is generally acceptable.

### Dunn Worry Scale

Freeman et al. (2020) previously conducted EFA and CFA. Thus, we only conducted a CFA to evaluate factor loadings and model goodness-of-fit in this study. A one-factor CFA model was fitted to evaluate the items, and the result showed excellent model fit (robust  $\chi^2(35, N = 10382) = 2222.813$ ,  $p < 0$ , RMSEA = 0.078; SRMR = 0.021; CFI = 0.967; TLI = 0.958). The composite reliability was 0.97.

Table S1. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.85	2.12	1.13
2	0.87	2.13	1.19
3	0.85	1.92	1.2
4	0.88	2.00	1.26
5	0.86	1.77	1.27
6	0.81	1.79	1.25
7	0.89	1.89	1.23
8	0.91	2.08	1.25
9	0.91	2.05	1.26
10	0.85	1.67	1.29

### Revised Green et al Paranoid Thoughts Scale (R-GPTS) - Part B

Freeman et al. (2021) previously conducted EFA and CFA. Thus, in this study, we only conducted a CFA to evaluate factor loadings and model goodness-of-fit. A one-factor CFA model was fitted to evaluate the items, and the result showed excellent model fit (robust  $\chi^2(35, N = 10382) = 1002.029$ ,  $p < 0$ , RMSEA = 0.052; SRMR = 0.019; CFI = 0.976; TLI = 0.969). The composite reliability was 0.97.

Table S2. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.82	1.13	1.35
2	0.86	0.88	1.26
3	0.82	1.21	1.36
4	0.87	0.89	1.29
5	0.88	0.87	1.29
6	0.87	0.9	1.28
7	0.88	0.87	1.28
8	0.89	0.99	1.31
9	0.87	1.04	1.34
10	0.87	0.97	1.34

Note. SD – Standard Deviation

### Oxford Paranoia Defences Scale (O-PDS)

#### Exploratory factor analysis

The overall KMO was 0.98. At an item level, the lowest KMO was 0.96, and the highest KMO was 0.99. Parallel analysis indicated 1 factor above the eigenvalues derived from random or simulated data (Figure S1). We conducted a one-factor EFA on a sample of 5191 participants and found that the proposed EFA solution provided clearer interpretable factors based on the theoretical model. The one-factor EFA solution accounted for 67.1% of the variance and was retained as the final solution. Table S3 below reports the factor loadings of the final EFA model.

Figure S1. Parallel Analysis

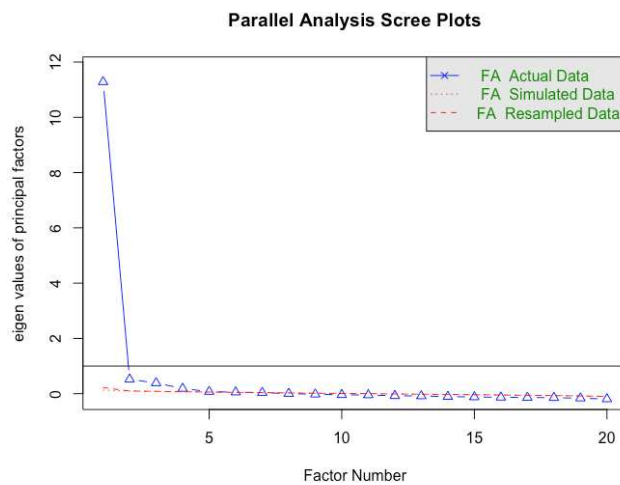


Table S3. Standardized loadings based on exploratory factor loadings

Item	Factor 1
1	0.86
2	0.86
3	0.86
4	0.86
5	0.85
6	0.85
7	0.84
8	0.84
9	0.83
10	0.83
11	0.83
12	0.83
13	0.83
14	0.81
15	0.80
16	0.80
17	0.76
18	0.76

19	0.73
20	0.72

#### Confirmatory factor analysis

We conducted a one-factor CFA and the model indicated an acceptable model fit robust  $\chi^2(170, N = 5191) = 4084.191, p < 0, RMSEA = 0.067; SRMR = 0.038; CFI = 0.917; TLI = 0.907$ . The composite reliability was 0.96.

Table S4. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.67	0.88	0.98
2	0.73	0.86	1.00
3	0.75	0.64	0.96
4	0.72	0.61	0.89
5	0.69	0.96	1.01
6	0.81	0.82	0.98
7	0.79	0.93	1.00
8	0.72	1.04	0.98
9	0.75	0.56	0.89
10	0.74	0.58	0.90
11	0.77	1.12	0.96
12	0.77	1.05	1.02
13	0.80	0.87	1.01
14	0.78	0.61	0.92
15	0.77	0.59	0.93
16	0.81	0.88	0.95
17	0.81	0.82	0.96
18	0.79	0.97	0.97
19	0.70	1.18	1.05
20	0.79	0.82	0.97

Note. SD – Standard Deviation

#### **Positive self-beliefs**

Freeman et al. (2023) previously performed EFA and CFA on the measure, and a higher-order factor CFA on the shortened version. Given that we were only working with the shortened version in this study, a higher-order CFA was conducted to evaluate factor loadings and model goodness-of-fit. The results from the higher order CFA model showed excellent model fit (robust  $\chi^2(16, N = 10382) = 630.118, p < 0, RMSEA = 0.061; SRMR = 0.024; CFI = 0.983; TLI = 0.97$ ). The composite reliability of each factor is reported in Table S5.

Table S5. Standardised loadings based on higher-order confirmatory factor loadings

Items / Factors	Latent Factors	Loadings	Mean	SD	Composite reliability
1	F1	0.84	2.11	1.15	0.86
2		0.90	2.26	1.20	
3	F2	0.85	2.19	1.16	0.83
4		0.84	2.28	1.20	
5	F3	0.84	2.20	1.26	0.84
6		0.87	2.46	1.19	
7	F4	0.87	2.74	1.13	0.85
8		0.86	2.80	1.07	
F1		0.95			
F2	Higher order factor	0.95			0.95
F3		0.87			
F4		0.76			

Note. SD – Standard Deviation

### Negative self-beliefs

Principal component analysis was previously performed by Fowler et al. (2006). Thus, in this study, we only conducted a CFA to evaluate factor loadings and model goodness-of-fit. A one-factor CFA model was fitted to evaluate the items and the result showed excellent model fit (robust  $\chi^2(9, N = 10382) = 591.796$ ,  $p < 0$ , RMSEA = 0.079; SRMR = 0.022; CFI = 0.973; TLI = 0.956). The composite reliability was 0.93.

Table S6. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.78	0.95	1.21
2	0.90	0.96	1.24
3	0.87	0.99	1.21
4	0.79	1.12	1.23
5	0.77	0.72	1.14
6	0.86	1.06	1.31

Note. SD – Standard Deviation

### Global Felt Sense of Anomaly scale- Strangeness

EFA and CFA were previously performed by Černis et al. (2021). Thus, in this study, we only conducted a CFA to evaluate factor loadings and model goodness-of-fit. A one-factor CFA model was fitted to evaluate the items and the result showed excellent model fit (robust  $\chi^2(5, N = 10382) = 412.582$ ,  $p < 0$ , RMSEA = 0.089; SRMR = 0.019; CFI = 0.981; TLI = 0.961). The composite reliability was 0.94.

Table S7. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.86	1.21	1.13
2	0.89	1.26	1.19
3	0.92	1.2	1.18
4	0.87	1.03	1.17
5	0.86	1.05	1.2

Note. SD – Standard Deviation

### Cardiff Anomalous Perceptions Scale-Hallucinations (CAPS)

EFA and CFA were previously performed by Gavett et al. (2020). Thus, we only conducted a CFA to evaluate factor loadings and model goodness-of-fit in this study. A one-factor CFA model was fitted to evaluate the items and the result showed excellent model fit (robust  $\chi^2(44, N = 10382) = 1657.343$ ,  $p < 0$ , RMSEA = 0.059; SRMR = 0.028; CFI = 0.948; TLI = 0.935). The composite reliability was 0.96.

Table S8. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.77	1.12	1.46
2	0.85	0.8	1.33
3	0.84	0.83	1.40
4	0.83	0.91	1.42
5	0.86	0.77	1.41
6	0.80	0.86	1.46
7	0.86	0.81	1.41
8	0.85	0.73	1.44
9	0.83	0.88	1.46
10	0.87	0.68	1.35
11	0.86	0.64	1.36

Note. SD – Standard Deviation

### Intrusive Images

#### Exploratory factor analysis

The overall KMO was 0.75. At an item level, the lowest KMO was 0.72, and the highest KMO was 0.79. Parallel analysis indicated 1 factor above the eigenvalues derived from random or simulated data (Figure S2). We conducted a one-factor EFA on a sample of 5191 participants and found that the proposed EFA solution provided clearer interpretable factors based on the theoretical model. The one-factor EFA solution accounted for 76.3% of the variance and was retained as the final solution. Table S9 below reports the factor loadings of the final EFA model.

Figure S2. Parallel Analysis

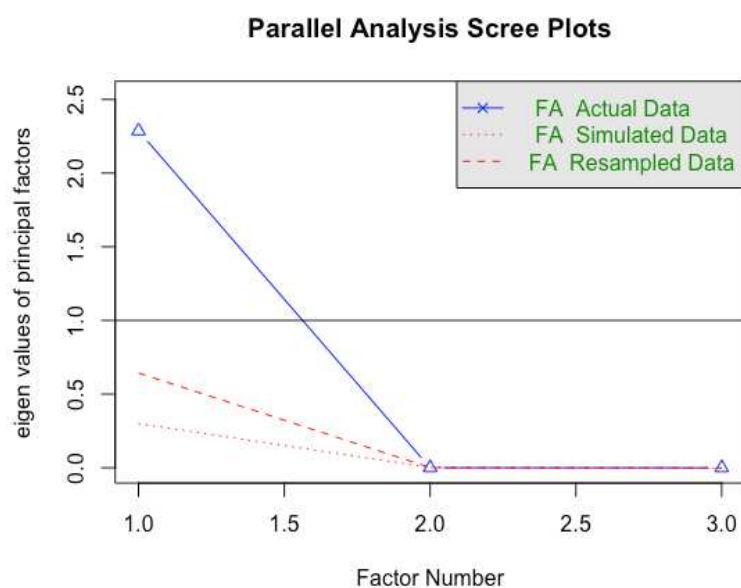


Table S9. Standardised loadings based on exploratory factor loadings

Item	Factor 1
1	0.90
2	0.88
3	0.84

#### Confirmatory factor analysis

A CFA was performed to evaluate the factor loadings. The fit results could not be calculated because it is a just-identified model (3-item model). The composite reliability was 0.91.

Table S10. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.91	0.74	1.34
2	0.88	0.69	1.32
3	0.86	0.94	1.51

Note. SD – Standard Deviation

#### **Aberrant Salience Inventory**

EFA and CFA were previously performed by Cicero et al. (2010). Thus, we only conducted a five-factor CFA model to evaluate factor loadings and model goodness-of-fit. Seven items were removed due to poor loadings and the final 22-item CFA model showed excellent model fit (robust  $\chi^2(199, N = 10382) = 2635.292, p < 0, RMSEA = 0.034; SRMR = 0.029; CFI = 0.961; TLI = 0.954$ ).



We also performed a higher-order factor model to show that the five factors are captured by an overarching higher-order factor and the model fit results were excellent (robust  $\chi^2(204, N = 10382) = 2743.168, p < 0, RMSEA = 0.035; SRMR = 0.03; CFI = 0.959; TLI = 0.954$ ). The composite reliability of each factor is reported in Table S11.

Table S11. Standardised loadings based on higher order confirmatory factor loadings

Items / Factors	Latent Factors	Loadings	Mean	SD	Composite reliability
1		0.70	1.63	0.48	
2		0.68	1.50	0.50	
3	Heightened cognitions	0.69	1.76	0.43	0.84
4		0.60	1.51	0.50	
5		0.65	1.54	0.50	
6		0.60	1.73	0.44	
7		0.60	1.68	0.47	
8		0.71	1.58	0.49	
9		0.65	1.75	0.43	
10	Increased significance	0.64	1.45	0.50	0.81
11		0.64	1.68	0.47	
12		0.56	1.69	0.46	
13		0.68	1.75	0.43	
14	Senses sharpened	0.62	1.79	0.41	0.71
15		0.70	1.64	0.48	
16		0.71	1.56	0.50	
17	Heightened emotionality	0.62	1.66	0.47	0.71
18		0.68	1.77	0.42	
19		0.70	1.79	0.40	
20	Impending understanding	0.67	1.66	0.47	0.74
21		0.67	1.61	0.49	
22		0.75	1.62	0.49	
Heightened cognitions		0.85			
Increased significance		0.93			
Senses sharpened	Higher order factor	0.90			0.94
Heightened emotionality		0.93			
Impending understanding		0.92			

Note. SD – Standard Deviation

### Anxiety Sensitivity Index

#### Exploratory factor analysis

The overall KMO was 0.96. At an item level, the lowest KMO was 0.87 and the highest KMO was 0.98. Parallel analysis indicated four factors above the eigenvalues derived from random or simulated data

(Figure S3). However, upon the multiple iterations of EFA, we determined that a one-factor EFA on a sample of 5191 participants provided clearer interpretable factors based on the theoretical model. Only one item (It is important not to appear nervous) was removed due to factor loading less than 0.4. The one-factor EFA solution accounted for 55.7% of the variance and was retained as the final solution. Table S12 below reports the factor loadings of the final EFA model.

Figure S3. Parallel Analysis

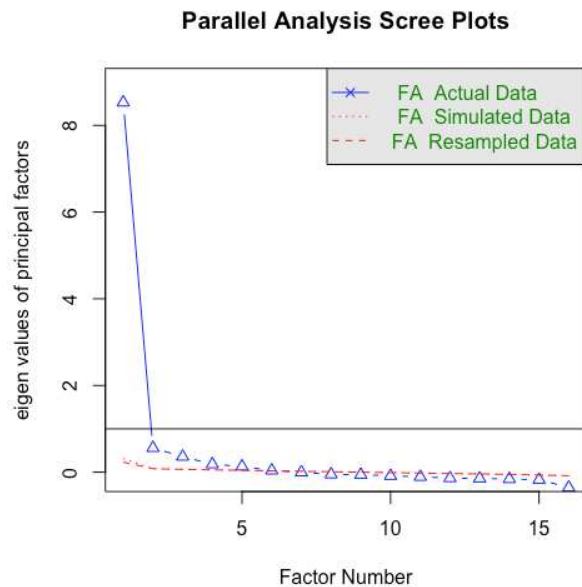


Table S12. Standardised loadings based on exploratory factor loadings

Item	Factor 1
1	0.84
2	0.81
3	0.79
4	0.79
5	0.79
6	0.78
7	0.77
8	0.76
9	0.76
10	0.76
11	0.76
12	0.72
13	0.71
14	0.65
15	0.41

#### Confirmatory factor analysis

We subsequently conducted a CFA to evaluate factor loadings and model goodness-of-fit in this study. An initial one-factor CFA model was inadequate (robust  $\chi^2(90, N = 5191) = 3594.033$ ,  $p < 0$ , RMSEA = 0.087; SRMR = 0.044; CFI = 0.901; TLI = 0.884) and indicated that items 3 and 4 had high modification indices. Thus, we correlated the residuals of those items in the model. The final model fit results showed acceptable fit (robust  $\chi^2(89, N = 5191) = 3092.641$ ,  $p < 0$ , RMSEA = 0.081; SRMR = 0.042; CFI = 0.915; TLI = 0.9). The composite reliability based on the factor model is 0.95.

Table S13. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.73	1.14	1.28
2	0.78	1.41	1.31
3	0.74	1.56	1.36
4	0.41	2.27	1.27
5	0.74	1.68	1.35
6	0.65	1.40	1.34
7	0.74	1.40	1.31
8	0.76	1.34	1.36
9	0.76	1.59	1.36
10	0.76	1.17	1.29
11	0.81	1.32	1.30
12	0.74	1.05	1.27
13	0.82	1.30	1.31
14	0.81	1.09	1.34
15	0.85	1.31	1.34

Note. SD – Standard Deviation

#### Oxford Agoraphobic Avoidance Scale (O-AS)

EFA and CFA were previously performed by Lambe et al. (2021). Thus, in this study, we only conducted a CFA to evaluate factor loadings and model goodness-of-fit. A one-factor CFA model was fitted to evaluate the items and the result showed excellent model fit (robust  $\chi^2(20, N = 10382) = 372.172$ ,  $p < 0$ , RMSEA = 0.041; SRMR = 0.028; CFI = 0.973; TLI = 0.962). The composite reliability was 0.89.

Table S14. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.64	0.13	0.34
2	0.70	0.18	0.38
3	0.67	0.12	0.32
4	0.74	0.2	0.4
5	0.71	0.15	0.35
6	0.72	0.13	0.33
7	0.78	0.18	0.38

8	0.75	0.21	0.41
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Note. SD – Standard Deviation

### Oxford Agoraphobic Distress Scale (O-AS)

EFA and CFA were previously performed by Lambe et al. (2001). Thus, in this study, we only conducted a CFA to evaluate factor loadings and model goodness-of-fit. A one-factor CFA model was fitted to evaluate the items and the result showed excellent model fit (robust  $\chi^2(20, N = 10382) = 1146.999$ ,  $p < 0$ , RMSEA = 0.074; SRMR = 0.023; CFI = 0.963; TLI = 0.948). The composite reliability was 0.96.

Table S15. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.85	2.14	2.97
2	0.83	2.44	3.03
3	0.88	2	2.85
4	0.88	2.57	3.18
5	0.88	2.4	3.05
6	0.91	2.06	2.91
7	0.92	2.48	3.22
8	0.88	2.77	3.34

Note. SD – Standard Deviation

### Rational-Experiential Inventory (REI)

#### Exploratory factor analysis

The overall KMO was 0.93. At an item level, the lowest KMO was 0.89 and the highest KMO was 0.94. Parallel analysis indicated three or four factors above the eigenvalues derived from random or simulated data (Figure S4). However, after testing both three and four-factor solutions, it was determined that a three-factor EFA on a sample of 5191 participants provided clearer interpretable factors based on the theoretical model. Only one item (Learning new ways to think would be very appealing to me) was removed due to factor loading less than 0.4. The one-factor EFA solution accounted for 46% of the variance and was retained as the final solution. Table S16 below reports the factor loadings of the final EFA model.

Figure S4. Parallel Analysis

### Parallel Analysis Scree Plots

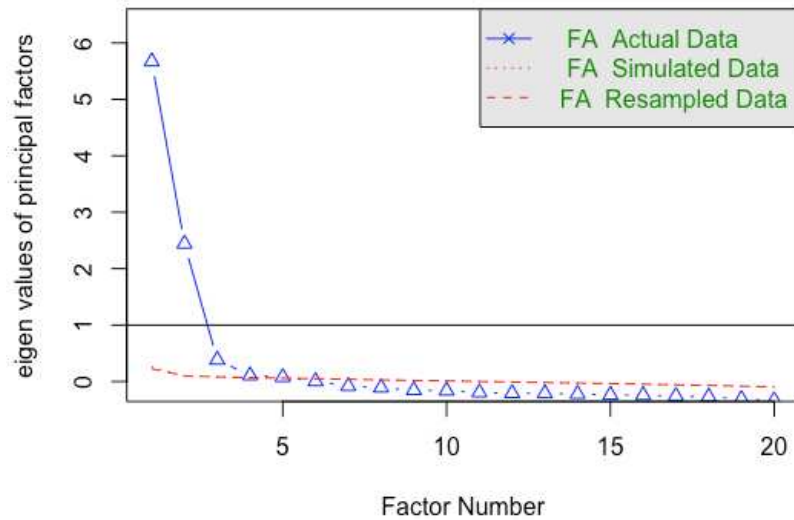


Table S16. Standardised loadings based on exploratory factor loadings

Items	Factor 1	Factor 2	Factor 3
1	0.74	-	-
2	0.73	-	-
3	0.71	-	-
4	0.71	-	-
5	0.7	-	-
6	0.69	-	-
7	0.59	-	-
8	0.54	-	-
9	0.54	-	-
10	0.53	-	-
11	-	0.73	-
12	-	0.65	-
13	-	0.63	-
14	-	0.54	-
15	-	0.52	-
16	-	-	0.69
17	-	-	0.64
18	-	-	0.61
19	-	-	0.56

#### Confirmatory factor analysis

We subsequently conducted a CFA and higher-order factor model to evaluate factor loadings and model goodness-of-fit. The higher-order factor CFA model showed satisfactory model fit results

(robust  $\chi^2(149, N = 5191) = 1920.362, p < 0.001, RMSEA = .048; SRMR = .052; CFI = .933; TLI = .923$ ). The composite reliability for each factor is reported in Table S17.

Table S17. Standardised loadings based on higher order confirmatory factor loadings

Items / Factors	Latent Factors	Loadings	Mean	SD	Composite reliability
1	F1	0.74	3.75	1.01	0.88
2		0.77	3.04	1.08	
3		0.74	3.23	1.10	
4		0.71	3.24	1.15	
5		0.72	3.05	1.21	
6		0.70	3.00	1.09	
7		0.62	3.36	0.99	
8		0.53	3.65	0.97	
9		0.47	3.17	1.15	
10		0.47	3.66	1.03	
11	F2	0.67	3.18	1.16	0.80
12		0.65	3.52	1.06	
13		0.71	3.22	1.15	
14		0.63	3.14	1.02	
15		0.66	3.58	0.97	
16	F3	0.79	3.12	1.15	0.77
17		0.79	3.10	1.10	
18		0.50	3.24	1.13	
19		0.63	3.35	1.07	
F1	Higher Order Factor	0.49			0.94
F2		0.89			
F3		0.89			

Note. SD – Standard Deviation

### Insomnia Severity Index (ISI)

Principal component analysis was previously performed by Bastien et al. (2001). Thus, in this study, we only conducted a CFA to evaluate factor loadings and model goodness-of-fit. A one-factor CFA model was fitted to evaluate the items and the result showed excellent model fit (robust  $\chi^2(13, N = 10382) = 1270.111, p < 0, RMSEA = 0.097; SRMR = 0.041; CFI = 0.953; TLI = 0.924$ ). The composite reliability was 0.89.

Table S18. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.71	1.46	1.21
2	0.72	1.56	1.21
3	0.62	1.56	1.27
4	0.66	2.09	1.21

5	0.86	1.6	1.24
6	0.81	1.38	1.2
7	0.87	1.35	1.23

Note. SD – Standard Deviation

### Social Phobia Inventory (SPIN)

#### Exploratory factor analysis

The overall KMO was 0.97. At an item level, the lowest KMO was 0.94 and the highest KMO was 0.98. Parallel analysis indicated a dominant 1-factor solution (Figure S5). Thus, we conducted a one-factor EFA on a sample of 5191 participants and found that the proposed EFA solution provided clearer interpretable factors based on the theoretical model. The one-factor EFA solution accounted for 61% of the variance and was retained as the final solution. Table S19 below reports the factor loadings of the final EFA model.

Figure S5. Parallel Analysis

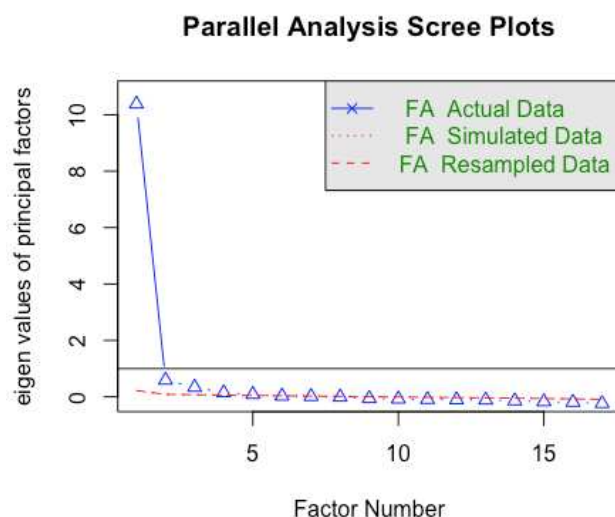


Table S19. Standardised loadings based on exploratory factor loadings

Item	Factor 1
1	0.86
2	0.85
3	0.84
4	0.81
5	0.81
6	0.80
7	0.80
8	0.79
9	0.79

10	0.79
11	0.76
12	0.75
13	0.75
14	0.74
15	0.73
16	0.72
17	0.66

We subsequently conducted an CFA to evaluate factor loadings and model goodness-of-fit. An initial one-factor CFA model was inadequate (robust  $\chi^2(119, N = 5191) = 5583.246, p < 0, RMSEA = 0.094; SRMR = 0.047; CFI = 0.888; TLI = 0.872$ ). After inspecting the modification index table, the residuals of three pair of items were subsequently correlated in the model (*Parties and social events scare me* and *I avoid going to parties*; *I avoid activities in which I am the center of attention* and *I avoid having to give speeches*; *I avoid talking to people I don't know* and *Talking to strangers scares me*). The final model fit results were good (robust  $\chi^2(116, N = 5191) = 3847.381, p < 0, RMSEA = 0.079; SRMR = 0.041; CFI = 0.923; TLI = 0.91$ ). The composite reliability was 0.96.

Table S20. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.73	1.05	1.20
2	0.74	1.24	1.30
3	0.80	1.50	1.36
4	0.78	1.53	1.36
5	0.82	1.56	1.35
6	0.86	1.40	1.36
7	0.76	1.34	1.35
8	0.74	1.59	1.42
9	0.71	1.94	1.44
10	0.83	1.34	1.33
11	0.63	2.22	1.48
12	0.80	1.58	1.36
13	0.78	1.25	1.33
14	0.86	1.51	1.35
15	0.82	1.71	1.39
16	0.82	1.22	1.33
17	0.81	1.37	1.37

Note. SD – Standard Deviation

### Rotter's Locus of Control Scale



EFA was previously performed by Barnett & Lanier (1995). Thus, we only conducted a CFA to evaluate factor loadings and model goodness-of-fit in this study. An initial one-factor CFA model was inadequate (robust  $\chi^2(2, N = 10382) = 316.085, p < 0, RMSEA = 0.123; SRMR = 0.038; CFI = 0.97; TLI = 0.909$ ) and indicated that items 3 and 4 had high modification indices. Thus, we correlated the residuals of those items in the model. The final model fit results were excellent (robust  $\chi^2(1, N = 10382) = 8.575, p < 0.003, RMSEA = 0.027; SRMR = 0.004; CFI = 0.999; TLI = 0.996$ ). The composite reliability was 0.83.

Table S21. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.84	2.6	0.92
2	0.88	2.51	0.91
3	0.61	2.63	0.85
4	0.60	2.45	0.91

Note. SD – Standard Deviation

#### Alcohol Use Disorders Identification Test (AUDIT-C)

A CFA was performed to evaluate the factor loadings. The fit results could not be calculated because it is a just-identified model (3-item model). The composite reliability was 0.82.

Table S22. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.65	1.73	1.28
2	0.85	1.49	1.2
3	0.84	0.85	1.06

Note. SD – Standard Deviation

#### Adult Psychiatric Morbidity Survey Discrimination Scale (DS)

##### Exploratory factor analysis

The overall KMO was 0.86. At an item level, the lowest KMO was 0.85 and the highest KMO was 0.89. Given the binary nature of the measure, parallel analysis was conducted based on tetrachoric correlation and the result indicated a dominant single-factor solution (Figure S6). We conducted a one-factor EFA on a sample of 5191 participants and found that the proposed EFA solution provided clearer interpretable factors based on the theoretical model. The one-factor EFA solution accounted for 66% of the variance and was retained as the final solution. Table S23 below reports the factor loadings of the final EFA model.

Figure S6. Parallel Analysis

### Parallel Analysis Scree Plots

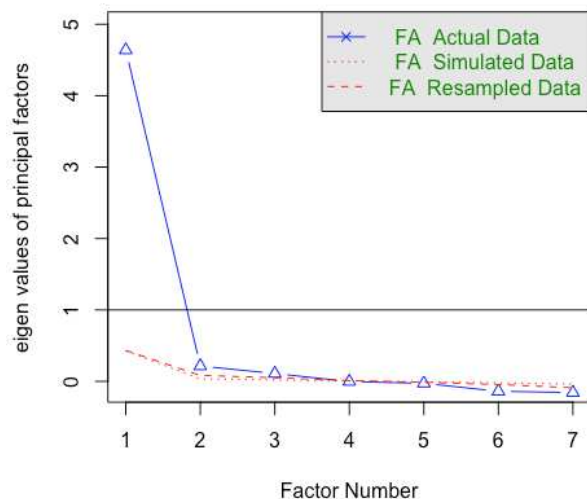


Table S23. Standardised loadings based on exploratory factor loadings

Item	Factor 1
1	0.89
2	0.85
3	0.82
4	0.80
5	0.79
6	0.78
7	0.76

### Confirmatory factor analysis

We subsequently conducted a CFA using the diagonal weighted least squares (DWLS) estimator to evaluate factor loadings and model goodness-of-fit in this study. The CFA model fit results were excellent (robust  $\chi^2(14, N = 5191) = 167.686, p < 0, RMSEA = 0.046; SRMR = 0.039; CFI = 0.99; TLI = 0.985$ ). The composite reliability based on the factor model was 0.83.

Table S24. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.85	1.87	0.33
2	0.82	1.85	0.35
3	0.86	1.90	0.30
4	0.75	1.82	0.38
5	0.80	1.84	0.36
6	0.78	1.86	0.35
7	0.87	1.91	0.29

Note. SD – Standard Deviation

### California Bully-Victimization Scale (Bullying)

#### Exploratory factor analysis

The overall KMO was 0.88. At an item level, the lowest KMO was 0.84 and the highest KMO was 0.91. Given the binary nature of the measure, parallel analysis was conducted based on tetrachoric correlation and the result indicated a dominant single-factor solution (Figure S7). We conducted a one-factor EFA on a sample of 5191 participants and found that the proposed EFA solution provided clearer interpretable factors based on the theoretical model. The one-factor EFA solution accounted for 63% of the variance and was retained as the final solution. Table S25 below reports the factor loadings of the final EFA model.

Figure S7. Parallel Analysis

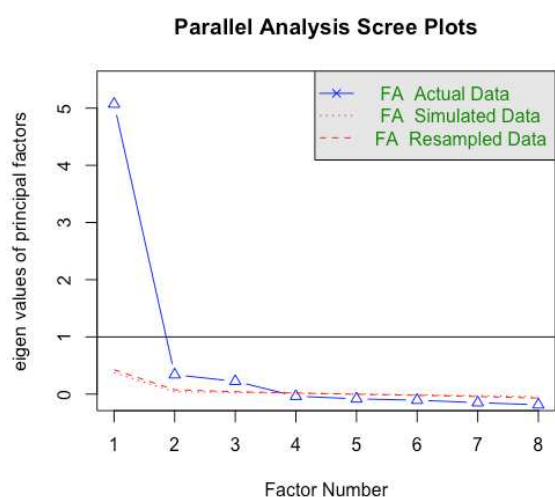


Table S25. Standardised loadings based on exploratory factor loadings

Item	Factor 1
1	0.85
2	0.85
3	0.83
4	0.82
5	0.80
6	0.78
7	0.74
8	0.67

### Confirmatory factor analysis

We subsequently conducted a CFA using the diagonal weighted least squares (DWLS) estimator to evaluate factor loadings and model goodness-of-fit in this study. The initial CFA model fit results showed that the RMSEA was marginally higher than the suggested cut-off of 0.8 (robust  $\chi^2(20, N = 5191) = 875.727, p < 0, RMSEA = 0.091; SRMR = 0.063; CFI = 0.975; TLI = 0.965$ ). The residuals of two items (*Been hit pushed or physically hurt in a mean or hurtful way* and *Been threatened in a mean or hurtful way*) were correlated after inspecting the modification indices. The final CFA showed excellent model fit results (robust  $\chi^2(19, N = 5191) = 431.059, p < 0, RMSEA = 0.065; SRMR = 0.048; CFI = 0.988; TLI = 0.982$ ). The composite reliability based on the factor model was 0.84.

Table S26. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.85	1.42	0.49
2	0.85	1.56	0.50
3	0.84	1.50	0.50
4	0.76	1.59	0.49
5	0.79	1.59	0.49
6	0.75	1.72	0.45
7	0.79	1.73	0.45
8	0.71	1.80	0.40

Note. SD – Standard Deviation

### **Childhood Mistreatment Scale**

#### Exploratory factor analysis

The overall KMO was 0.77. At an item level, the lowest KMO was 0.75 and the highest KMO was 0.82. Given the binary nature of the measure, parallel analysis was conducted based on tetrachoric correlation and the result indicated a dominant single-factor solution (Figure S8). We conducted a one-factor EFA on a sample of 5191 participants and found that the proposed EFA solution provided clearer interpretable factors based on the theoretical model. The one-factor EFA solution accounted for 69% of the variance and was retained as the final solution. Table S27 below reports the factor loadings of the final EFA model.

Figure S8. Parallel Analysis

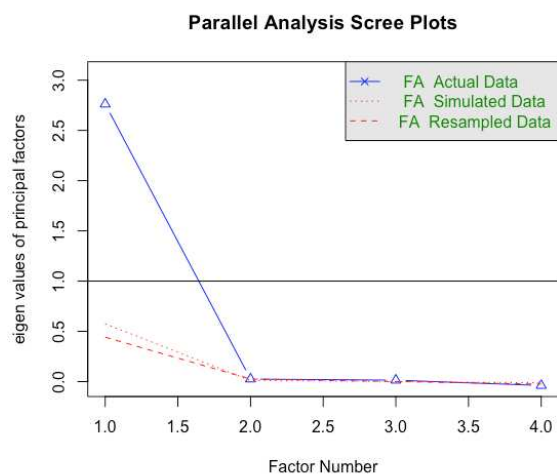


Table S27. Standardised loadings based on exploratory factor loadings

Item	Factor 1
1	0.90
2	0.85
3	0.84
4	0.73

#### Confirmatory factor analysis

We subsequently conducted a CFA using the diagonal weighted least squares (DWLS) estimator to evaluate factor loadings and model goodness-of-fit in this study. The CFA showed excellent model fit results (robust  $\chi^2(19, N = 5191) = 431.059, p < 0, RMSEA = 0.065; SRMR = 0.048; CFI = 0.988; TLI = 0.982$ ). The composite reliability based on the factor model was 0.78.

Table S28. Standardised loadings based on confirmatory factor loadings

Items	Factor loadings	Mean	SD
1	0.87	1.72	0.45
2	0.85	1.71	0.45
3	0.75	1.86	0.35
4	0.89	1.80	0.40

Note. SD – Standard Deviation

#### **Multidimensional Scale of Perceived Social Support (MSPSS)**

Clara et al. (2003) previously performed an EFA, CFA and a higher-order factor CFA. Hence, a higher-order CFA model was conducted to evaluate factor loadings and model goodness of fit. The results from the higher order CFA model showed excellent model fit (robust  $\chi^2(51, N = 10382) = 2117.01, p < 0, RMSEA = 0.062; SRMR = 0.027; CFI = 0.964; TLI = 0.954$ ). The composite reliability of each factor is reported in Table S29.

Table S29. Standardised loadings based on higher-order confirmatory factor loadings

Items / Factors	Latent Factors	Loadings	Mean	SD	Composite reliability
1	F1	0.88	4.92	1.85	0.93
2		0.92	5.14	1.76	
3		0.85	4.92	1.72	
4		0.86	4.8	1.8	
5	F2	0.89	5.14	1.77	0.94
6		0.90	4.74	1.65	
7		0.89	4.71	1.7	
8	F3	0.87	4.7	1.82	0.93
9		0.87	4.79	1.74	
10		0.91	5.16	1.78	
11		0.90	4.8	1.72	
12		0.85	4.77	1.72	
F1	Higher order factor	0.83			0.97
F2		0.78			
F3		0.85			

Note. SD – Standard Deviation

Table S30. Factor loadings of CFA model with all relevant explanatory variables.

ID	Factors	Item ID	Items / Factors	Std. factor loadings
1	Worry	1	Ive been worrying a lot.	0.85
2		2	In my mind I have been going over problems again and again.	0.87
3		3	There was little I could do to stop worrying.	0.85
4		4	I have been worrying even though I didnt want to.	0.88
5		5	Worry has stopped me focusing on important things in my day.	0.86
6		6	Worry has stopped me sleeping.	0.81
7		7	Worry has caused me to feel upset.	0.88
8		8	Worry has made me feel stressed.	0.91
9		9	Worry has made me feel anxious.	0.90
10		10	Worry has made me feel hopeless.	0.85
11	Paranoia	1	Certain individuals have had it in for me.	0.82
12		2	People wanted me to feel threatened so they stared at me.	0.86
13		3	I was certain people did things in order to annoy me.	0.82
14		4	I was convinced there was a conspiracy against me.	0.87
15		5	I was sure someone wanted to hurt me.	0.88

16		6	I couldnt stop thinking about people wanting to confuse me.	0.87
17		7	I was distressed by being persecuted.	0.88
18		8	It was difficult to stop thinking about people wanting to make me feel bad.	0.89
19		9	People have been hostile towards me on purpose.	0.87
20		10	I was angry that someone wanted to hurt me.	0.87
21		1	I keep the curtains closed so I cant be watched.	0.67
22		2	I only go out at certain times of the day that I think are safer.	0.73
23		3	I have an escape plan ready.	0.75
24		4	I check for smells that might indicate danger.	0.73
25		5	I repeatedly check all the locks and windows.	0.68
26		6	I carefully plan my routes to avoid danger.	0.80
27		7	I position myself so that I have a clear view of everyone.	0.78
28		8	I keep my head down.	0.71
29		9	I check if the items in my home have been interfered with.	0.75
30	Defence behaviours	10	I keep someone with me for protection.	0.73
31		11	I watch out for signs of danger.	0.76
32		12	I try to do what I need to do as quickly as possible.	0.77
33		13	I dont stay anywhere for too long.	0.79
34		14	I stay away from the windows so I cant be watched.	0.78
35		15	I wear clothes that I can easily run away in.	0.77
36		16	I listen out for any sounds that might indicate danger.	0.80
37		17	I plan for the dangers that might exist.	0.81
38		18	I watch out for threatening body language.	0.78
39		19	I try to keep a low profile.	0.70
40		20	I avoid making eye contact to prevent others from harming me.	0.78
41	F1_Pos	1	I can succeed.	0.84
42		2	I am worthwhile.	0.90
43	F2_Pos	3	I rise to the challenge.	0.85
44		4	I can do things as well as anyone else.	0.84
45	F3_Pos	5	I can relax.	0.84
46		6	I can have fun.	0.86
47	F4_Pos	7	I am a good person.	0.87
48		8	I am helpful.	0.86
49	Positive self-beliefs	F1_pos		0.95
50		F2_Pos		0.94
51		F3_Pos		0.89
52		F4_Pos		0.75

53		1	I am unloved.	0.78
54		2	I am worthless.	0.89
55	Negative self-beliefs	3	I am weak.	0.87
56		4	I am vulnerable.	0.80
57		5	I am bad.	0.77
58		6	I am a failure.	0.86
59		1	Things seem strange.	0.85
60	Dissociative experiences	2	I feel odd.	0.89
61		3	Things feel weird.	0.91
62		4	I feel surreal.	0.87
63		5	My experiences seem peculiar.	0.87
64		1	Hear noise or sounds when there is nothing about to explain them.	0.77
65		2	Feel that someone is touching you but when you look nobody is there.	0.85
66		3	Hear sounds or music that people near you dont hear.	0.83
67		4	Detect smells which dont seem to come from your surroundings.	0.82
68		5	See things other people cannot.	0.86
69	Hallucinations	6	Experience unusual burning sensations or other strange feelings in or on your body that cant be explained.	0.80
70		7	See shapes lights or colours even though there is nothing really there.	0.85
71		8	Hear voices commenting on what youre thinking or doing.	0.85
72		9	Notice smells or odours that people next to you seem unaware of.	0.83
73		10	Hear voices saying words or sentences when there is no one around that might account for it.	0.87
74		11	Hear two or more unexplained voices talking to each other.	0.86
75		1	Unwanted images of other people laughing at me.	0.90
76	Negative images	2	Unwanted images of other people physically harming me.	0.89
77		3	Unwanted images of getting things wrong in front of other people.	0.85
78		1	Do you ever feel like the mysteries of the universe are revealing themselves to you	0.70
79		2	Do you ever feel like a whole world is opening up to you	0.67
80	Heightened Cognitions	3	Do you ever feel that your boundaries between inner and outer sensations have been removed	0.69
81		4	Do you ever feel like you are rapidly approaching the height of your intellectual powers	0.60
82		5	Do you sometimes feel that you can hear with a greater clarity	0.65



83		6	Has your sense of taste ever seemed more acute	0.60
84		7	Do you ever go through periods where you feel especially religious or mystical	0.60
85		8	Do you sometimes notice things that you havent noticed before that take on special significance	0.71
86		9	Have you sometimes become interested in people events places or ideas that normally would not make an impression on you	0.65
87	Increased Significance	10	Do you often become fascinated by the little things around you	0.64
88		11	Do you sometimes notice small details that you have not noticed before that seem important	0.64
89		12	Do you go through periods in which songs sometimes seem to have an important meaning for your life	0.56
90		13	Do you sometimes attribute importance to objects which you normally would not	0.68
91		14	Do your senses sometimes seem sharpened	0.62
92	Senses Sharpened	15	Do you ever go through periods of heightened awareness	0.71
93		16	Do your senses ever seem extremely strong or clear	0.71
94		17	Do you ever have difficulty telling if you are thrilled frightened pained or anxious	0.62
95	Heightened Emotionality	18	Do you go through periods in which you feel over stimulated by things or experiences that are normally manageable	0.68
96		19	Do you ever have a feeling of inexpressible urgency and you are not sure what to do	0.70
97		20	Do you sometimes feel like you are on the verge of something really big but youre not sure what it is	0.68
98	Impending Understanding	21	Do you sometimes feel like it is important for you to figure something out but youre not sure what it is	0.66
99		22	Do you sometimes feel like you are on the verge of figuring out something really big or important but you arent sure what it is	0.75
100			Heightened Cognitions	0.86
101			Increased Significance	0.91
102	Aberrant salience		Senses Sharpened	0.88
103			Heightened Emotionality	0.94
104			Impending Understanding	0.91
105		1	When I cannot keep my mind on a task I worry that I might be going crazy.	0.74
106		2	It scares me when I feel shaky.	0.78
107		3	It scares me when I feel faint.	0.74
108	Anxiety sensitivity	4	It is important to me to stay in control of my emotions.	0.40
109		5	It scares me when I hear my heart beat rapidly.	0.74
110		6	It embarrasses me when my stomach growls.	0.65
111		7	It scares me when I am nauseous .	0.75

112		8	When I notice my heart beating rapidly I worry that I might be having a heart attack.	0.76
113		9	It scares me when I become short of breath.	0.76
114		10	When my stomach is upset I worry that I might be seriously ill.	0.76
115		11	It scares me when I am unable to keep my mind on a task.	0.80
116		12	Other people notice when I feel shaky.	0.74
117		13	Unusual body sensations scare me.	0.82
118		14	When I am nervous I worry that I might be mentally ill.	0.81
119		15	It scares me when I am nervous.	0.85
121		1	Stand outside your home on your own for 5 minutes.	0.63
122		2	Walk down a quiet street on your own.	0.70
123		3	Walk down a busy street with someone you know.	0.67
124		4	Travel on your own on the bus for several stops.	0.74
125	Agoraphobic avoidance	5	Sit in the waiting room of your GPhealth centre on your own for 5 minutes.	0.70
126		6	Purchase an item in a local shop from a shop assistant.	0.71
127		7	Go to a shopping centre on your own for 15 minutes.	0.78
128		8	Sit in a cafv© on your own for 10 minutes.	0.75
129		1	Stand outside your home on your own for 5 minutes.	0.85
130		2	Walk down a quiet street on your own.	0.83
131		3	Walk down a busy street with someone you know.	0.88
132		4	Travel on your own on the bus for several stops.	0.88
133	Agoraphobic distress	5	Sit in the waiting room of your GPhealth centre on your own for 5 minutes.	0.88
134		6	Purchase an item in a local shop from a shop assistant.	0.90
135		7	Go to a shopping centre on your own for 15 minutes.	0.92
136		8	Sit in a cafv© on your own for 10 minutes.	0.89
137		1	I dont like to have to do a lot of thinking.	0.74
138		2	Im not that good at figuring out complicated problems.	0.77
139		3	I am not very good at solving problems that require careful logical analysis.	0.74
140	F1 Reasoning	4	Reasoning things out carefully is not one of my strong points.	0.71
141		5	I try to avoid situations that require thinking in depth about something.	0.72
142		6	Thinking is not my idea of an enjoyable activity.	0.69
143		7	I dont reason well under pressure.	0.63
144		8	I am not a very analytical thinker.	0.53
145		9	Thinking hard and for a long time about something gives me little satisfaction.	0.46

146		10	Knowing the answer without having to understand the reasoning behind it is good enough for me.	0.48
147		11	I usually have clear explainable reasons for my decisions.	0.69
148		12	I have a logical mind.	0.68
149	F2 Reasoning	13	Using logic usually works well for me in figuring out problems in my life.	0.72
150		14	I have no problem thinking things through carefully.	0.64
151		15	I am much better at figuring things out logically than most people.	0.65
152		16	I enjoy solving problems that require hard thinking.	0.79
153	F3 Reasoning	17	I enjoy intellectual challenges.	0.79
154		18	I enjoy thinking in abstract terms.	0.51
155		19	I prefer complex problems to simple problems.	0.63
156	Analytic reasoning		F1 Reasoning	0.49
157			F2 Reasoning	0.94
158			F3 Reasoning	0.82
159		1	Difficulty falling asleep	0.72
160		2	Difficulty staying asleep	0.72
161		3	Problem waking up too early	0.62
162	Insomnia	4	How satisfied dissatisfied are you with your current sleep pattern	0.64
163		5	To what extent do you consider your sleep problem to interfere with your daily functioning .	0.86
164		6	How noticeable to others do you think your sleep problem is in terms of impairing the quality of your life	0.81
165		7	How worrieddistressed are you about your current sleep problem	0.87
167	Locus of control	1	Sometimes I feel that I dont have enough control over the direction my life has taken.	0.85
168		2	Many times I feel as though I have little influence over what happens to me.	0.87
169		3	Most people dont realise the extent to which their lives are controlled by accidental happenings.	0.60
170		4	Many times we might just as well decide what to do by flipping a coin.	0.61
172	Social anxiety	1	I am afraid of people in authority.	0.74
173		2	I am bothered by blushing in front of other people.	0.74
174		3	Parties and social events scare me.	0.79
175		4	I avoid talking to people I dont know.	0.77
176		5	Being criticised scares me a lot.	0.82
177		6	I avoid doing things or speaking to people for fear of embarrassment.	0.85
178		7	Sweating in front of people causes me distress.	0.75
179		8	I avoid going to parties.	0.73

180		9	I avoid activities in which I am the center of attention.	0.71
181		10	Talking to strangers scares me.	0.83
182		11	I avoid having to give speeches.	0.63
183		12	I would do anything to avoid being criticised.	0.80
184		13	Heart palpitations bother me when I am around people.	0.78
185		14	I am afraid of doing things when people might be watching.	0.86
186		15	Being embarrassed or looking stupid are among my worst fears.	0.81
187		16	I avoid speaking to anyone in authority.	0.82
188		17	Trembling or shaking in front of others is distressing to me.	0.81
192		1	How often do you have a drink containing alcohol	0.63
193	Alcohol use	2	How many drinks containing alcohol do you have on a typical day when you are drinking	0.84
194		3	How often do you have six or more drinks on one occasion	0.86
195		1	Have you been unfairly treated in the last 12 months because of your skin colour or ethnicity	0.65
196		2	Have you been unfairly treated in the last 12 months because of your sex	0.60
197		3	Have you been unfairly treated in the last 12 months because of your religious beliefs	0.65
198	Discrimination	4	Have you been unfairly treated in the last 12 months because of your age	0.55
199		5	Have you been unfairly treated in the last 12 months because of your mental health	0.64
200		6	Have you been unfairly treated in the last 12 months because of any other health problem or disability	0.61
201		7	Have you been unfairly treated in the last 12 months because of your sexual orientation	0.68
202		1	Been teased or called names in a mean or hurtful way	0.65
203		2	Had rumours or gossip spread in a mean or hurtful way behind your back	0.72
204		3	Been left out of a group or ignored on purpose in a mean or hurtful way	0.70
205		4	Been hit pushed or physically hurt in a mean or hurtful way	0.60
206	Bullying	5	Been threatened in a mean or hurtful way	0.65
207		6	Had sexual comments jokes or gestures made to you in a mean or hurtful way	0.60
208		7	Had your things stolen or damaged in a mean or hurtful way	0.61
209		8	Been teased had rumours spread or threatened through the Internet or text messaging in a mean or hurtful way by a student at your school	0.53

211		1	Not including smacking before you were 18 did an adult in your life hit beat kick or physically hurt you in any way	0.69
212	Childhood mistreatment	2	Before you were 18 did you get scared or feel really bad because an adult in your life called you names said mean things to you or said they didnt want you	0.70
213		3	Sometimes a family argues over where a child should live. Before you were 18 did a parent take keep or hide you to stop you from being with another parent	0.58
214		4	Before you were 18 did an adult in your life shake you very hard or shove you against a wall or a piece of furniture	0.71
215			1	My family really tries to help me.
216	Family	2	I get the emotional help and support I need from my family.	0.92
217		3	I can talk about my problems with my family.	0.85
218		4	My family is willing to help me make decisions.	0.86
219			5	My friends really try to help me.
220	Friends	6	I can count on my friends when things go wrong.	0.90
221		7	I have friends with whom I can share my joys and sorrows.	0.89
222		8	I can talk about my problems with my friends.	0.87
223			9	There is a special person who is around when I am in need.
224	Significant other	10	There is a special person with whom I can share joys and sorrows.	0.91
225		11	I have a special person who is a real source of comfort to me.	0.89
226		12	There is a special person in my life who cares about my feelings.	0.85
227				Family
228	Social support		Friends	0.78
229			Other	0.84

## Stage II: Structural Equation Modelling

We employed structural equation modelling (SEM) to examine three main issues. The first models assessed the relationship between the social and cognitive explanatory factors and paranoia, while the second models evaluated the potential differential relationships of cognitive and social processes to paranoia and social anxiety, and the third models explored the connection between socio-demographic variables and paranoia. SEM consists of two parts: a confirmatory measurement model, also referred to as confirmation factor analysis (CFA), which estimates the relationships between latent constructs and their observed indicators, and a structural model that is used to estimate the relationships among the constructs.

Regarding the second models, we utilised the Wald test in the SEM model to test our hypotheses regarding the comparative strength of the effects of various predictors on paranoia and social anxiety. The Wald test provides a Chi-square statistic and an associated p-value for the null hypothesis. The null hypothesis is rejected if the p-value is less than 0.05, suggesting a significant difference between the two regression coefficients. Such an approach enables a direct statistical comparison of the regression coefficients, thus providing a robust test of the hypotheses.

The SEM models include a mix of binary and polytomous data given the various response option methods used in different measures. Thus, the MLR estimator was used in all SEM models because it can handle both binary and polytomous data effectively and has less computational burden than the WLSMV estimator (Rhemtulla & Savalei, 2012). This enables us to provide robust results, considering the nature of the data. The assessment of the fit indices is the same as those of the CFA described above.

### *Explanatory factors and paranoia*

Upon establishing the final CFA model derived from each measure, separate SEMs were performed, regressing persecution onto the relevant explanatory factors, given that we anticipate a high degree of shared variance among those factors. We then integrated them into a unified SEM with persecution as the response variable, taking the entire dataset into account. A single item measuring Cannabis and the composite score of the stress measure were included as observed variables in the SEM. In assessing the relationships of the constructs in the structural model and eliminating irrelevant variables, we employed a backward elimination strategy, specifically targeting items that were either non-significant statistically or demonstrated a suppressor effect (Smith et al., 1992).

### *Differential analysis*

The process of evaluating the differential relationships between paranoia and social anxiety was by conducting separate SEMs, regressing paranoia and social anxiety onto each explanatory factor to account for the shared variance between the response variables. This enables us to examine the simultaneous effect of explanatory variables on paranoia and social anxiety, offering a more accurate picture of the consistency of effects across both outcomes. A Wald test was employed to statistically compare the regression coefficients of the significant explanatory variables of paranoia and social

### *Socio-demographic factors*

Regarding the demographic analysis, we employed all available demographic information as predictors of persecution in a separate unified SEM. We also conducted separate SEMs with individual demographic factors as predictors and persecution as the response variable. Dummy coding was implemented when variables contained more than two binary response options. White ethnicity, income less than 20K per year, single, unemployed, and London region were used as reference groups for the respective dummy coded variables. This approach allows for the transformation of categorical

data into a format that can be more readily utilised in our regression analysis, enabling a nuanced understanding of the relationship between demographic factors and persecution. The backward elimination procedure was also employed to only retain the significant predictors in the SEM with all demographic factors.

### Paranoia and explanatory factors

In separate SEMs, all regressions were found to be significant. The beta estimates, R2 and model fit results can be found in Table S31 and S32.

The initial CFA model inclusive of relevant measures indicated an acceptable model fit (Robust  $\chi^2$  (20882, N= 10382) = 137937.91,  $p < 0.001$ , RMSEA= 0.02; SRMR= 0.07; CFI= 0.91; TLI= 0.91). Table S30 shows details of the factor loadings. Persecution was used as the response variable for the SEM, and only higher-order factors of multi-dimensional measures were used as explanatory factors. The initial SEM model showed a good model fit (Robust  $\chi^2$  (21294, N= 10382) = 141436.812,  $p < 0.001$ , RMSEA= 0.02; SRMR= 0.07; CFI= 0.91; TLI= 0.91).

Through the backward elimination procedure, six explanatory factors (cannabis, child bully, child treatment, SPIN, stress & hear) were reduced, resulting in sixteen remaining in the model. Further review of the beta estimates suggested that several explanatory factors may act as suppressors and were thus removed from the structural model, further reducing three explanatory factors (control, sleep, positive belief). The final SEM model indicated a good fit to the data (Robust  $\chi^2$  (10627, N= 10382) = 83150.970,  $p < 0.001$ , RMSEA= 0.03; SRMR= 0.07; CFI= 0.92; TLI= 0.92) and the variance explained by the structural model was 66.7%. Table S34 and S35 report the factor loadings and correlations, respectively, and Figure S9 and Table S33 summarise the beta estimates of the structural model. All remaining thirteen explanatory factors (worry; safety seeking; negative belief; strangeness; images; aberrant; anxiety sensitivity; avoidance; distress; reasoning; alcohol; discrimination; support) were significant.

Table S31. Individual SEMs with paranoia as the response variable

Response variable	Explanatory variable	B	SE B	Adjusted p-value	$\beta$	R square
persecution	Worry	0.584	0.01	<.001	0.504	0.254
persecution	Defence behaviours	0.928	0.009	<.001	0.783	0.612
persecution	Positive self-beliefs	-0.316	0.014	<.001	-0.262	0.069
persecution	Negative self-beliefs	0.791	0.013	<.001	0.678	0.460
persecution	Dissociative experiences	0.801	0.011	<.001	0.699	0.488
persecution	Hallucinations	0.698	0.011	<.001	0.707	0.499
persecution	Negative images	0.662	0.010	<.001	0.730	0.533
persecution	Aberrant salience	0.657	0.011	<.001	0.610	0.372
persecution	Anxiety sensitivity	0.759	0.013	<.001	0.632	0.399
persecution	Agoraphobic avoidance	0.625	0.014	<.001	0.574	0.329
persecution	Agoraphobic distress	0.266	0.005	<.001	0.604	0.365
persecution	Analytic reasoning	-0.618	0.034	<.001	-0.233	0.054
persecution	Insomnia	0.702	0.014	<.001	0.549	0.302
persecution	Locus of control	0.622	0.015	<.001	0.432	0.187
persecution	Social anxiety	0.775	0.013	<.001	0.616	0.379

persecution	Alcohol use	0.343	0.019	<.001	0.252	0.063
persecution	Discrimination	0.692	0.014	<.001	0.666	0.443
persecution	Bullying	0.537	0.013	<.001	-0.462	0.213
persecution	Childhood mistreatment	0.602	0.014	<.001	-0.542	0.294
persecution	Social support	-0.228	0.010	<.001	-0.261	0.068
persecution	Cannabis use	0.344	0.013	<.001	0.317	0.100
persecution	Stressful life events	0.372	0.020	<.001	0.279	0.078

Note: B = unstandardised coefficient;  $\beta$  = standardised coefficient. SE = standard error. Adjusted p-value based on Holm (1979).

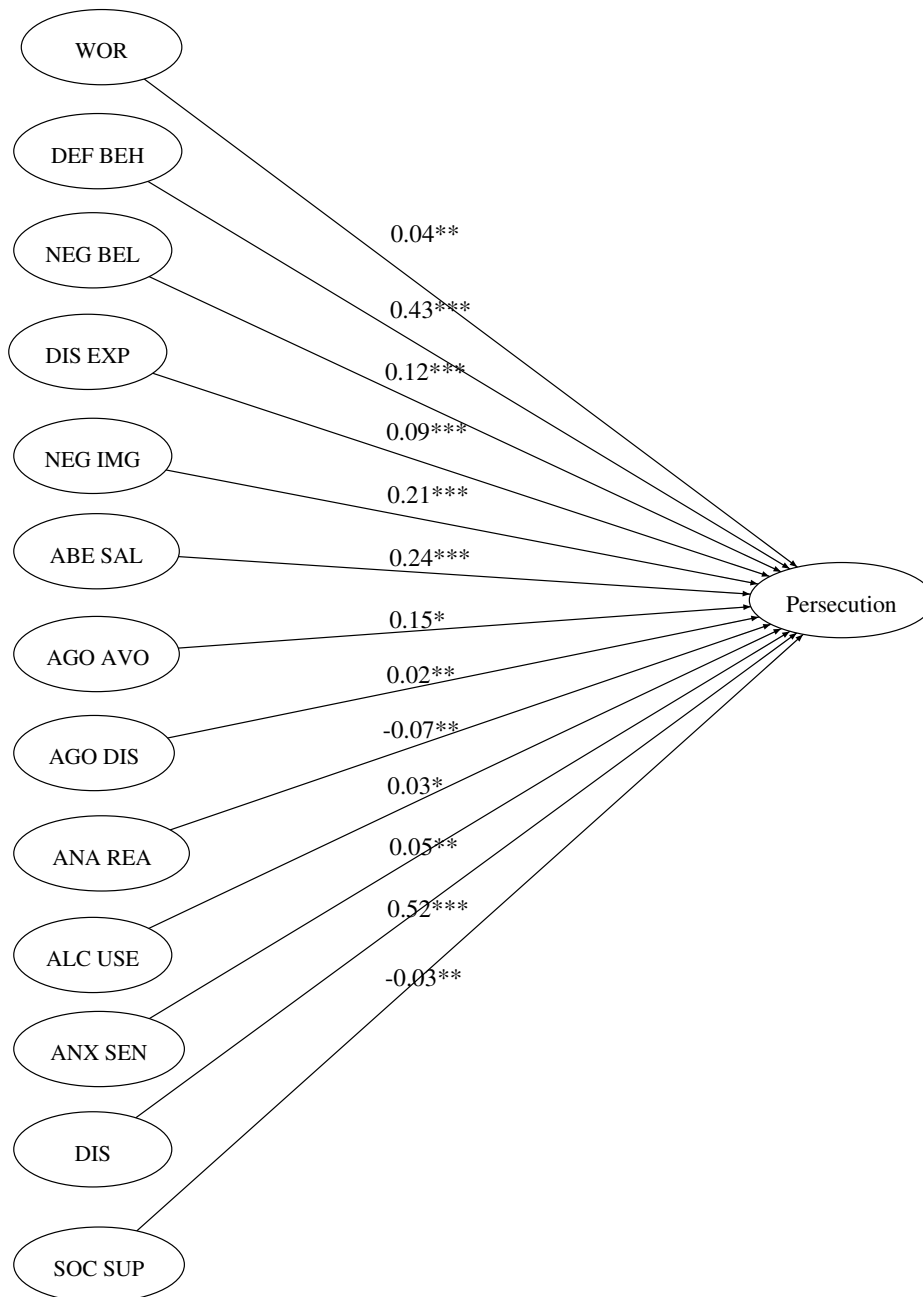
Table S32. Fit index results of the separate SEM with relevant explanatory variables

Response variable	Exploratory variable	robust chi-square	df	p-value	CFI	TLI	RMSEA	SRMR
persecution	Worry	4811.171	169	<0.001	0.964	0.96	0.051	0.041
persecution	Defence behaviours	16180.051	404	<0.001	0.981	0.98	0.061	0.032
persecution	Positive self-beliefs	2563.128	130	<0.001	0.974	0.96	0.042	0.036
persecution	Negative self-beliefs	2291.702	103	<0.001	0.972	0.96	0.045	0.026
persecution	Dissociative experiences	2018.756	89	<0.001	0.975	0.97	0.046	0.022
persecution	Hallucinations	3852.044	188	<0.001	0.960	0.95	0.043	0.023
persecution	Negative images	1335.968	64	<0.001	0.977	0.97	0.044	0.017
persecution	Aberrant salience	8981.483	458	<0.001	0.988	0.98	0.042	0.048
persecution	Anxiety sensitivity	8618.048	273	<0.001	0.939	0.93	0.054	0.044
persecution	Agoraphobic avoidance	1620.822	134	<0.001	0.998	0.99	0.033	0.025
persecution	Agoraphobic distress	3212.548	134	<0.001	0.967	0.96	0.047	0.021
persecution	Analytic reasoning	7738.139	373	<0.001	0.941	0.93	0.044	0.106
persecution	Insomnia	3106.233	117	<0.001	0.965	0.95	0.05	0.04
persecution	Locus of control	1813.763	75	<0.001	0.973	0.96	0.047	0.037
persecution	Social anxiety	10428.381	320	<0.001	0.939	0.93	0.055	0.047
persecution	Alcohol use	1786.585	64	<0.001	0.971	0.96	0.051	0.056
persecution	Discrimination	2270.981	118	<0.001	0.997	0.99	0.042	0.032



persecution	Bullying	7083.211	133	<0.001	0.989	0.98	8	0.071	0.074
persecution	Childhood mistreatment	2376.795	76	<0.001	0.996	0.99	6	0.054	0.033
persecution	Social support	4032.943	205	<0.001	0.969	0.96	5	0.042	0.024
persecution	Cannabis use	1104.356	44	<0.001	0.976	0.97	0.97	0.048	0.018
persecution	Stressful life events	1125.316	44	<0.001	0.976	0.97	0.97	0.049	0.017

Figure S9. Structural Equation Model



Note: \* $p < 0.01$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ . WOR = Worry; DEF BEH = Defensive Behaviours; NEG BEL = Negative beliefs; DIS EXP = Dissociative experiences; NEG IMG = Negative images; ABE SAL = Aberrant salience; AGO AVO = Agoraphobic avoidance; AGO DIS = Agoraphobic distress; ANA REA = Analytic reasoning; ALC USE = Alcohol use; ANX SEN = Anxiety sensitivity; DIS = Discrimination; SOC SUP = Social support.

Table 33. Parameter estimates of the final SEM with persecution as the response variable

Variables	<i>B</i>	SE <i>B</i>	p-value	$\beta$
Worry	0.044	0.011	<0.001	0.038
Defence behaviours	0.427	0.028	<0.001	0.250
Negative self-beliefs	0.119	0.019	<0.001	0.103
Dissociative experiences	0.087	0.019	<0.001	0.076
Negative images	0.209	0.016	<0.001	0.229
Aberrant salience	0.239	0.053	<0.001	0.053
Anxiety sensitivity	0.050	0.016	<0.01	0.042
Agoraphobic avoidance	0.153	0.056	<0.01	0.029
Agoraphobic distress	0.018	0.006	<0.01	0.041
Analytic reasoning	-0.070	0.023	<0.01	-0.026
Alcohol use	0.028	0.011	<0.01	0.020
Discrimination	0.521	0.061	<0.001	0.102
Social support	-0.027	0.007	<0.001	-0.031

Note: *B* = unstandardised coefficient;  $\beta$  = standardised coefficient. SE = standard error.

Table S34. Standardised factor loadings of the final SEM

Factors	Items	Factor loadings
Worry	72_1	0.85
Worry	72_2	0.87
Worry	72_3	0.85
Worry	72_4	0.88
Worry	72_5	0.86
Worry	72_6	0.81
Worry	72_7	0.89
Worry	72_8	0.91
Worry	72_9	0.90
Worry	72_10	0.85
Paranoia	75_1	0.82
Paranoia	75_2	0.86
Paranoia	75_3	0.82
Paranoia	75_4	0.87
Paranoia	75_5	0.88
Paranoia	75_6	0.87
Paranoia	75_7	0.88
Paranoia	75_8	0.89
Paranoia	75_9	0.87
Paranoia	75_10	0.87
Defence behaviours	85_1	0.67
Defence behaviours	85_2	0.73

Defence behaviours	85_3	0.75
Defence behaviours	85_4	0.73
Defence behaviours	85_5	0.68
Defence behaviours	85_6	0.80
Defence behaviours	85_7	0.78
Defence behaviours	85_8	0.71
Defence behaviours	85_9	0.75
Defence behaviours	85_10	0.73
Defence behaviours	85_11	0.76
Defence behaviours	85_12	0.77
Defence behaviours	85_13	0.79
Defence behaviours	85_14	0.78
Defence behaviours	85_15	0.77
Defence behaviours	85_16	0.80
Defence behaviours	85_17	0.81
Defence behaviours	85_18	0.78
Defence behaviours	85_19	0.70
Defence behaviours	85_20	0.78
Negative self-beliefs	87_1	0.78
Negative self-beliefs	87_2	0.89
Negative self-beliefs	87_3	0.86
Negative self-beliefs	87_4	0.80
Negative self-beliefs	87_5	0.77
Negative self-beliefs	87_6	0.86
Dissociative experiences	88_1	0.85
Dissociative experiences	88_2	0.89
Dissociative experiences	88_3	0.91
Dissociative experiences	88_4	0.87
Dissociative experiences	88_5	0.87
Negative images	90_1	0.90
Negative images	90_2	0.88
Negative images	90_3	0.85
Heightened Cognitions	92_18	0.70
Heightened Cognitions	92_22	0.68
Heightened Cognitions	92_23	0.69
Heightened Cognitions	92_4	0.60
Heightened Cognitions	92_12	0.65
Heightened Cognitions	92_17	0.60
Heightened Cognitions	92_7	0.60
Increased Significance	92_29	0.71
Increased Significance	92_27	0.65
Increased Significance	92_20	0.64
Increased Significance	92_5	0.64

Increased Significance	92_14	0.56
Increased Significance	92_15	0.68
Senses Sharpened	92_3	0.62
Senses Sharpened	92_9	0.71
Senses Sharpened	92_21	0.71
Heightened Emotionality	92_8	0.62
Heightened Emotionality	92_19	0.68
Heightened Emotionality	92_26	0.70
Impending Understanding	92_2	0.68
Impending Understanding	92_6	0.66
Impending Understanding	92_16	0.75
Aberrant salience	Heightened Cognitions	0.86
Aberrant salience	Increased Significance	0.91
Aberrant salience	Senses Sharpened	0.88
Aberrant salience	Heightened Emotionality	0.94
Aberrant salience	Impending Understanding	0.91
Anxiety sensitivity	93_2	0.74
Anxiety sensitivity	93_3	0.78
Anxiety sensitivity	93_4	0.74
Anxiety sensitivity	93_5	0.40
Anxiety sensitivity	93_6	0.74
Anxiety sensitivity	93_7	0.65
Anxiety sensitivity	93_8	0.74
Anxiety sensitivity	93_9	0.76
Anxiety sensitivity	93_10	0.76
Anxiety sensitivity	93_11	0.76
Anxiety sensitivity	93_12	0.80
Anxiety sensitivity	93_13	0.74
Anxiety sensitivity	93_14	0.82
Anxiety sensitivity	93_15	0.81
Anxiety sensitivity	93_16	0.85
Agoraphobic avoidance	24_1_1	0.63
Agoraphobic avoidance	24_1_2	0.70
Agoraphobic avoidance	24_1_3	0.67
Agoraphobic avoidance	24_1_4	0.74
Agoraphobic avoidance	24_1_5	0.70
Agoraphobic avoidance	24_1_6	0.71
Agoraphobic avoidance	24_1_7	0.78
Agoraphobic avoidance	24_1_8	0.75
Agoraphobic distress	24_2_1	0.85
Agoraphobic distress	24_2_2	0.83
Agoraphobic distress	24_2_3	0.88
Agoraphobic distress	24_2_4	0.88

Agoraphobic distress	24_2_5	0.88
Agoraphobic distress	24_2_6	0.90
Agoraphobic distress	24_2_7	0.92
Agoraphobic distress	24_2_8	0.88
F1_reasoning	94_17	0.74
F1_reasoning	94_12	0.77
F1_reasoning	94_19	0.74
F1_reasoning	94_14	0.71
F1_reasoning	94_4	0.72
F1_reasoning	94_9	0.69
F1_reasoning	94_5	0.63
F1_reasoning	94_3	0.53
F1_reasoning	94_6	0.46
F1_reasoning	94_18	0.48
F2_reasoning	94_8	0.69
F2_reasoning	94_1	0.68
F2_reasoning	94_16	0.72
F2_reasoning	94_10	0.64
F2_reasoning	94_7	0.65
F3_reasoning	94_20	0.79
F3_reasoning	94_13	0.79
F3_reasoning	94_15	0.51
F3_reasoning	94_2	0.63
Analytic reasoning	F1_reasoning	0.50
Analytic reasoning	F2_reasoning	0.95
Analytic reasoning	F3_reasoning	0.81
Alcohol use	103	0.63
Alcohol use	104	0.84
Alcohol use	105	0.86
Discrimination	107_1	0.65
Discrimination	107_2	0.60
Discrimination	107_3	0.65
Discrimination	107_4	0.55
Discrimination	107_5	0.64
Discrimination	107_6	0.60
Discrimination	107_7	0.68
Family	111_3	0.88
Family	111_4	0.92
Family	111_8	0.85
Family	111_11	0.86
Friends	111_6	0.89
Friends	111_7	0.90
Friends	111_9	0.89

Friends	111_12	0.87
Significant other	111_1	0.87
Significant other	111_2	0.91
Significant other	111_5	0.89
Significant other	111_10	0.85
Social support	Family	0.83
Social support	Friends	0.77
Social support	Significant other	0.85

Table S35. Factor correlations of the final SEM

Worry	Paranoia	Defence behaviours	Negative self-beliefs	Dissociative experiences	Negative images	Aberrant salience	Anxiety sensitivity	Agoraphobic avoidance
Worry	1.00							
Paranoia	0.50	1.00						
Defence behaviours	0.53	0.74	1.00					
Negative self-beliefs	0.61	0.68	0.68	1.00				
Dissociative experiences	0.61	0.70	0.75	0.74	1.00			
Negative images	0.42	0.73	0.74	0.70	0.71	1.00		
Aberrant salience	0.44	0.55	0.60	0.44	0.64	0.53	1.00	
Anxiety sensitivity	0.64	0.63	0.69	0.66	0.70	0.62	0.59	1.00
Agoraphobic avoidance	0.32	0.49	0.52	0.50	0.46	0.49	0.28	0.46
Agoraphobic distress	0.51	0.60	0.65	0.63	0.61	0.59	0.46	0.63
Analytic reasoning	-0.30	-0.24	-0.19	-0.33	-0.24	-0.18	-0.09	-0.28
Alcohol use	0.15	0.25	0.23	0.23	0.27	0.30	0.22	0.21
Discrimination	0.29	0.58	0.56	0.50	0.51	0.63	0.49	0.43
Family	-0.19	-0.22	-0.19	-0.31	-0.22	-0.16	-0.13	-0.16
Friends	-0.17	-0.20	-0.18	-0.29	-0.20	-0.15	-0.12	-0.15
Significant other	-0.19	-0.22	-0.19	-0.32	-0.22	-0.17	-0.13	-0.17
Analytic reasoning	-0.22	-0.26	-0.23	-0.37	-0.26	-0.20	-0.15	-0.20

Cont.

Constructs	Agoraphobic distress	Analytic reasoning	Alcohol use	Discrimination	Family	Friends	Significant other	Analytic reasoning	Agoraphobic distress
Agoraphobic avoidance	1.00								
Agoraphobic distress	0.63	1.00							
Analytic reasoning	-0.33	-0.29	1.00						

Alcohol use	0.11	0.17	0.00	1.00					
Discrimination	0.39	0.46	-0.13	0.25	1.00				
Family	-0.20	-0.20	0.26	-0.02	-0.16	1.00			
Friends	-0.19	-0.18	0.24	-0.02	-0.15	0.65	1.00		
Significant other	-0.21	-0.20	0.26	-0.02	-0.17	0.71	0.66	1.00	
Analytic reasoning	-0.24	-0.24	0.31	-0.03	-0.20	0.84	0.78	0.85	1.00

### Differential relationships of explanatory factors to persecution and social anxiety

Both Paranoia and Social Anxiety were used as response variables in the SEMs. All social and cognitive variables were significantly associated with social anxiety and paranoia. The beta estimates, R2 and model fit results can be found in Table S36 and S37.

Based on the Wald test analysis (Table S38), all but Worry and Bullying were found to be statistically different between paranoia and social anxiety. The most substantial discrepancy in regression coefficients between paranoia and social anxiety was observed for Positive self-beliefs ( $\beta = 0.23$ ).

Table S36. Individual SEMs with paranoia and social anxiety as the response variables

Response variable	Explanatory variable	B	SE	Adjusted p-value	$\beta$	R square
Paranoia	Worry (A1)	0.584	0.012	<.001	0.504	0.254
Social Anxiety	Worry (A2)	0.604	0.010	<.001	0.657	0.432
Paranoia	Defence behaviours (B1)	0.919	0.009	<.001	0.782	0.612
Social Anxiety	Defence behaviours (B2)	0.812	0.009	<.001	0.716	0.513
Paranoia	Positive self-beliefs (C1)	-0.317	0.014	<.001	-0.262	0.069
Social Anxiety	Positive self-beliefs (C2)	-0.474	0.011	<.001	-0.495	0.245
Paranoia	Negative self-beliefs (D1)	0.794	0.013	<.001	0.678	0.459
Social Anxiety	Negative self-beliefs (D2)	0.654	0.012	<.001	0.701	0.492
Paranoia	Dissociative experiences (E1)	0.802	0.011	<.001	0.699	0.488
Social Anxiety	Dissociative experiences (E2)	0.605	0.011	<.001	0.662	0.439
Paranoia	Hallucinations (F1)	0.698	0.011	<.001	0.707	0.499
Social Anxiety	Hallucinations (F2)	0.446	0.009	<.001	0.566	0.321
Paranoia	Negative images (G1)	0.664	0.010	<.001	0.730	0.533
Social Anxiety	Negative images (G2)	0.442	0.008	<.001	0.610	0.372
Paranoia	Aberrant salience (H1)	0.667	0.011	<.001	0.611	0.373
Social Anxiety	Aberrant salience (H2)	0.518	0.011	<.001	0.504	0.254
Paranoia	Anxiety sensitivity (I1)	0.758	0.013	<.001	0.632	0.399
Social Anxiety	Anxiety sensitivity (I2)	0.723	0.012	<.001	0.760	0.577
Paranoia	Agoraphobic avoidance (J1)	0.625	0.014	<.001	0.574	0.329



Social Anxiety	Agoraphobic avoidance (J2)	0.585	0.014	<.001	0.571	0.326
Paranoia	Agoraphobic distress (K1)	0.266	0.005	<.001	0.604	0.364
Social Anxiety	Agoraphobic distress (K2)	0.236	0.004	<.001	0.672	0.452
Paranoia	Analytic reasoning (L1)	-0.581	0.031	<.001	-0.234	0.055
Social Anxiety	Analytic reasoning (L2)	-0.728	0.023	<.001	-0.369	0.136
Paranoia	Insomnia (M1)	0.699	0.014	<.001	0.549	0.413
Social Anxiety	Insomnia (M2)	0.649	0.012	<.001	0.643	0.413
Paranoia	Locus of control (N1)	0.621	0.015	<.001	0.433	0.187
Social Anxiety	Locus of control (N2)	0.740	0.013	<.001	0.651	0.423
Paranoia	Alcohol use (O1)	0.344	0.019	<.001	0.252	0.063
Social Anxiety	Alcohol use (O2)	0.169	0.014	<.001	0.156	0.024
Paranoia	Discrimination (P1)	0.712	0.015	<.001	0.664	0.440
Social Anxiety	Discrimination (P2)	0.516	0.014	<.001	0.511	0.262
Paranoia	Bullying (Q1)	0.564	0.014	<.001	0.464	0.216
Social Anxiety	Bullying (Q2)	0.556	0.013	<.001	0.490	0.240
Paranoia	Childhood mistreatment (R1)	0.622	0.015	<.001	0.541	0.293
Social Anxiety	Childhood mistreatment (R2)	0.511	0.014	<.001	0.475	0.226
Paranoia	Social support (S1)	-0.228	0.010	<.001	-0.261	0.068
Social Anxiety	Social support (S2)	-0.175	0.008	<.001	-0.252	0.064
Paranoia	Cannabis use (T1)	0.345	0.013	<.001	0.311	0.100
Social Anxiety	Cannabis use (T2)	0.202	0.009	<.001	0.229	0.055
Paranoia	Stressful life events (U1)	0.373	0.020	<.001	0.336	0.078
Social Anxiety	Stressful life events (U2)	0.222	0.015	<.001	0.252	0.044

Note: B = unstandardised coefficient;  $\beta$  = standardised coefficient. SE = standard error. Adjusted p-value based on Holm (1979)

Table S37. Fit index results of separate SEM with relevant explanatory variables

Response variable	Exploratory variable	robust chi-square	df	p-value	CFI	TLI	RMSEA	SRMR
Paranoia and Social Anxiety	Worry	15555.35	623	<.001	0.943	0.939	0.048	0.043
Paranoia and Social Anxiety	Defence behaviours	43780.44	1028	<.001	0.960	0.958	0.063	0.046
Paranoia and Social Anxiety	Positive self-beliefs	13372.6	550	<.001	0.941	0.937	0.047	0.045
Paranoia and Social Anxiety	Negative self-beliefs	12469.15	489	<.001	0.941	0.937	0.049	0.044
Paranoia and Social Anxiety	Dissociative experiences	12040.74	458	<.001	0.944	0.939	0.049	0.044
Paranoia and Social Anxiety	Hallucinations	14293.24	659	<.001	0.938	0.934	0.045	0.047

Paranoia and Social Anxiety	Negative images	11239.55	399	<.00	0.93	5	0.051	0.047
Paranoia and Social Anxiety	Aberrant salience	29684.63	1116	<.00	0.96	9	0.050	0.053
Paranoia and Social Anxiety	Anxiety sensitivity	21293.84	812	<.00	0.91	7	0.049	0.046
Paranoia and Social Anxiety	Agoraphobic avoidance	22391.01	554	<.00	0.97	4	0.062	0.049
Paranoia and Social Anxiety	Agoraphobic distress	13967.77	554	<.00	0.93	6	0.048	0.043
Paranoia and Social Anxiety	Analytic reasoning	20573.68	980	<.00	0.91	8	0.044	0.105
Paranoia and Social Anxiety	Insomnia	13637.17	520	<.00	0.93	3	0.049	0.045
Paranoia and Social Anxiety	Locus of control	11925.34	427	<.00	0.93	4	0.051	0.046
Paranoia and Social Anxiety	Alcohol use	12049.74	399	<.00	0.93	2	0.053	0.057
Paranoia and Social Anxiety	Discrimination	22691.63	521	<.00	0.97	4	0.064	0.053
Paranoia and Social Anxiety	Bullying	26028.83	553	<.00	0.97	0	0.067	0.058
Paranoia and Social Anxiety	Childhood mistreatment	22114.15	428	<.00	0.97	3	0.070	0.048
Paranoia and Social Anxiety	Social support	14882.25	693	<.00	0.94	0	0.044	0.042
Paranoia and Social Anxiety	Cannabis use	10627.73	345	<.00	0.93	3	0.054	0.046
Paranoia and Social Anxiety	Stressful life events	10670.21	345	<.00	0.93	3	0.054	0.046

Table 38. Wald test to evaluate exploratory variables between response variables

Explanatory variables	Label	<i>B</i>	<i>SE B</i>	p-value	$\beta$	<i>SE</i> $\beta$	p-value
Worry	A1 - A2	-0.019	0.011	0.09	-0.153	0.007	<.001
Defence behaviours	B1 - B2	0.107	0.008	<.001	0.066	0.006	<.001
Positive self-beliefs	C1 - C2	0.157	0.012	<.001	0.233	0.010	<.001
Negative self-beliefs	D1 - D2	0.141	0.013	<.001	-0.023	0.009	<.01
Dissociative experiences	E1 - E2	0.197	0.012	<.001	0.036	0.008	<.001
Hallucinations	F1 - F2	0.252	0.011	<.001	0.140	0.008	<.001
Negative images	G1 - G2	0.222	0.010	<.001	0.120	0.008	<.001
Aberrant salience	H1 - H2	0.149	0.010	<.001	0.107	0.009	<.001
Anxiety sensitivity	I1 - I2	0.035	0.013	<.01	-0.128	0.008	<.001
Agoraphobic avoidance	J1 - J2	0.040	0.012	<.01	0.003	0.011	0.814
Agoraphobic distress	K1 - K2	0.030	0.005	<.001	-0.069	0.009	<.001
Analytic reasoning	L1 - L2	0.147	0.028	<.001	0.135	0.011	<.001
Insomnia	M1 - M2	0.050	0.013	<.001	-0.093	0.008	<.001
Locus of control	N1 - N2	-0.119	0.014	<.001	-0.218	0.008	<.001

Alcohol use	O1 - O2	0.175	0.013	<.001	0.096	0.010	<.001
Discrimination	P1 -P2	0.196	0.011	<.001	0.152	0.010	<.001
Bullying	Q1 - Q2	0.008	0.012	0.49	-0.025	0.010	<.01
Childhood mistreatment	R1 - R2	0.110	0.012	<.001	0.066	0.010	<.001
Social support	S1 - S2	-0.053	0.009	<.001	-0.008	0.010	0.418
Cannabis use	T1 - T2	0.143	0.010	<.001	0.081	0.009	<.001
Stressful life events	U1 - U2	0.150	0.012	<.001	0.084	0.009	<.001

Note: B = unstandardised coefficient;  $\beta$  = standardised coefficient. SE = standard error.

### ***Persecution and socio-demographic variables***

The associations of persecution and socio-demographic factors, tested in linear regressions, are summarised in in Table S39.

The initial SEM model inclusive of relevant demographic factors indicated an excellent model fit (Robust  $\chi^2$  (368, N= 10309)= 2760.491,  $p < 0.001$ , RMSEA= 0.03; SRMR= 0.006; CFI= 0.97; TLI= 0.97). Through backward elimination, twenty-one predictors were removed, resulting in 16 explanatory variables in the model. The final SEM model indicated an excellent fit to the data (Robust  $\chi^2$  (179, N= 10309) = 2359.650,  $p < 0.001$ , RMSEA= 0.03; SRMR= 0.009; CFI= 0.97; TLI= 0.97). Table S41 reports the beta estimates of the structural model. Results show that persecution is associated with lower age; male gender; lower income; not cohabiting or widowed relative to being single; not in the East, Southeast, Southwest and Northern Ireland relative to the London region. The variance explained by the structural model was 21.1%.

Table S39. Association of demographic variables with persecution (individual regressions)

	B	SE B	p-value	B	R2
Age	-0.03	0.001	<0.001	-0.432	0.186
Sex	-0.164	0.022	<0.001	-0.074	0.005
Income: < 20K					
£20,000 – £29,999	-0.069	0.035	<0.05	-0.024	
£30,000 – £39,999	-0.089	0.037	<0.05	-0.029	
£40,000 – £49,999	-0.137	0.04	<0.01	-0.039	
£50,000 – £59,999	-0.028	0.046	0.536	-0.007	
£60,000 – £69,999	-0.127	0.052	<0.05	-0.026	0.006
£70,000 – £99,999	-0.199	0.047	<0.001	-0.045	
£100,000+	0.054	0.059	0.359	0.011	
Prefer not to say (income)	-0.34	0.047	<0.001	-0.070	
Ethnicity: White					
Black	0.578	0.062	<0.001	0.098	
White and other background	0.517	0.086	<0.001	0.062	
Other mixed background	0.471	0.188	0.01	0.024	0.029
Asian	0.485	0.042	<0.001	0.117	
Other	0.787	0.112	<0.001	0.069	
Relationship status: single					
Cohabiting	-0.335	0.036	<0.001	-0.102	
Married or civil partnership	-0.424	0.027	<0.001	-0.191	0.039
Divorced or separated	-0.583	0.041	<0.001	-0.144	
Widowed	-0.792	0.059	<0.001	-0.120	
Region: London					
East	-0.589	0.048	<0.001	-0.145	
South east	-0.473	0.043	<0.001	-0.151	
South west	-0.521	0.048	<0.001	-0.129	
Northern Ireland	-0.465	0.078	<0.001	-0.061	
North west	-0.265	0.048	<0.001	-0.076	
Wales	-0.315	0.061	<0.001	-0.062	0.023
West midlands	-0.264	0.049	<0.001	-0.069	
East midlands	-0.291	0.053	<0.001	-0.068	
Yorkshire	-0.304	0.052	<0.001	-0.074	
North east	-0.305	0.058	<0.001	-0.061	
Scotland	-0.42	0.05	<0.001	-0.104	
Employment status: Unemployed					
Full time	0.002	0.049	0.969	0.001	0.093
Part-time	-0.159	0.055	0.004	-0.049	

Self-employed	-0.335	0.061	<0.001	-0.074
Retired	-0.905	0.048	<0.001	-0.301
Student	0.271	0.074	<0.001	0.046
Homemaker	-0.358	0.064	<0.001	-0.073
Disabled or long term sick leave	0.047	0.076	0.538	0.008

Note: B = unstandardised coefficient;  $\beta$  = standardised coefficient. SE = standard error.

Table S40. Fit index results of separate SEM with demographic variables

Response variable	Exploratory variable	Robust chi-square	df	p-value	CFI	TLI	RMSEA	SRMR
Persecution	Age	1189.469	44	<0.001	0.975	0.969	0.050	0.018
Persecution	Gender	1191.019	44	<0.001	0.975	0.968	0.050	0.019
Persecution	Income	1763.846	107	<0.001	0.976	0.972	0.039	0.011
Persecution	Ethnicity	1331.844	80	<0.001	0.976	0.972	0.039	0.014
Persecution	Relationship status	1555.120	71	<0.001	0.975	0.970	0.045	0.015
Persecution	Region	1736.158	98	<0.001	0.976	0.971	0.040	0.012
Persecution	Employment status	1718.961	98	<0.001	0.975	0.970	0.040	0.013

Table S41. Parameter estimates of the final SEM with demographic factors

Explanatory variables	B	SE B	p-value	$\beta$
Gender	-0.204	0.02	<0.001	-0.092
Age	-0.03	0.001	<0.001	-0.445
Income: < 20K				
£20,000 – £29,999	-0.069	0.031	0.026	-0.024
£30,000 – £39,999	-0.1	0.033	0.003	-0.032
£40,000 – £49,999	-0.177	0.036	<0.001	-0.051
£50,000 – £59,999	-0.154	0.042	<0.001	-0.038
£60,000 – £69,999	-0.257	0.048	<0.001	-0.053
£70,000 – £99,999	-0.303	0.043	<0.001	-0.069
£100,000+	-0.162	0.053	0.002	-0.032
Prefer not to say (income)	-0.344	0.044	<0.001	-0.071
Relationship status: single				
cohabiting	-0.145	0.03	<0.001	-0.044
widowed	0.107	0.051	0.037	0.016
Region: London				
East	-0.168	0.034	<0.001	-0.041
South East	-0.116	0.028	<0.001	-0.037
South West	-0.147	0.034	<0.001	-0.036

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Northern Ireland	-0.213	0.069	0.002	-0.028
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Note: B = unstandardised coefficient;  $\beta$  = standardised coefficient. SE = standard error.

Table S42. A summary of the socio-demographic information for the participant group

	Representative Sample (N=10,382)
	Mean (SD)/ n (%)
Age in years	46.2 (16.2)
Age ranges	
18-24	1158 (11.2%)
25-34	1819 (17.5%)
35-44	1817 (17.5%)
45-54	2011 (19.4%)
55-64	1998 (19.2%)
65+	1579 (15.2%)
Gender: Male; Female; Non-binary or other; Prefer not to say	5115 (49.3%); 5225 (50.3%); 30(0.3%); 12 (0.1%)
Ethnicity:	
White	
English / Welsh / Scottish / Northern Irish / British	8403 (80.9%)
Irish	117 (1.1%)
Gypsy or Irish Traveller	20 (0.2%)
Any other White background	329 (3.2%)
Mixed / Multiple ethnic groups	
White and Black Caribbean	87 (0.8%)
White and Black African	31 (0.3%)
White and Asian	68 (0.7%)
Any other Mixed / Multiple ethnic background	34 (0.3%)
Asian / Asian British	
Indian	267 (2.6%)
Pakistani	224 (2.2%)
Bangladeshi	114 (1.1%)
Chinese	106 (1.0%)
Any other Asian background	101 (1.0%)
Black / African / Caribbean / Black British	
African	253 (2.4%)
Caribbean	108 (1.0%)
Any other Black / African / Caribbean background	18 (0.2%)
Other ethnic group	
Arab	56 (0.5%)
Any other ethnic group	46 (0.4%)
Marital status:	
Single	3090 (29.8%)
Cohabiting	1370 (13.2%)
Married or Civil Partnership	4776 (46.0%)
Divorced or Separated	843 (8.1%)
Widowed	303 (2.9%)
Total household income:	
Less than £15,000	1492 (14.4%)
£15,000-£19,999	938 (9.0%)
£20,000-£29,999	1978 (19.1%)
£30,000-£39,999	1565 (15.1%)
£40,000-£49,999	1176 (11.3%)
£50,000-£59,999	826 (8.0%)
£60,000-£69,999	578 (5.6%)

£70,000-£99,999	708 (6.8%)
£100,000 and above	535 (5.2%)
Prefer not to say	586 (5.6%)
Region:	
North East	532 (5.1%)
North West	1171 (11.3%)
Yorkshire and the Humber	829 (8.0%)
East Midlands	746 (7.2%)
West Midlands	951 (9.2%)
East (Anglia)	837 (8.1%)
London	1355 (13.1%)
South East	1506 (14.5%)
South West	859 (8.3%)
Wales	522 (5.0%)
Scotland	851 (8.2%)
Northern Ireland	223 (2.1%)
Employment status:	
Unemployed	376 (6.5%)
Employed full-time	4578 (44.1%)
Employed part-time	1405 (13.5%)
Self-employed	657 (6.3%)
Retired	1666 (16.0%)
Student	383 (3.7%)
Homemaker	562 (5.4%)
Voluntary	31 (0.3%)
Disabled/Long-term sick leave	427 (4.1%)
Contact with mental health services in last 6 months	
Yes	2151 (20.7%)
No	8096 (77.9%)
Prefer not to say	145 (1.4%)
Current diagnosis of a mental health problem	
Yes	2479 (23.9%)
No	7706 (74.2%)
Prefer not to say	197 (1.9%)



**R-GPTS Part C summary data****I would describe myself as:**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very trusting of other people	1427	13.7	13.7	13.7
	Generally trusting of other people	6371	61.4	61.4	75.1
	Generally mistrustful of other people	2032	19.6	19.6	94.7
	Very mistrustful of other people	552	5.3	5.3	100.0
	Total	10382	100.0	100.0	

**I have exaggerated fears that others may try to embarrass me.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	6022	58.0	58.0	58.0
	Occasionally	2365	22.8	22.8	80.8
	Sometimes	1530	14.7	14.7	95.5
	Often	465	4.5	4.5	100.0
	Total	10382	100.0	100.0	

**I have exaggerated fears that others may try to ruin my reputation.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	6217	59.9	59.9	59.9
	Occasionally	2047	19.7	19.7	79.6
	Sometimes	1578	15.2	15.2	94.8
	Often	540	5.2	5.2	100.0
	Total	10382	100.0	100.0	

**I have exaggerated fears that others may try to steal from me.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	6891	66.4	66.4	66.4
	Occasionally	1724	16.6	16.6	83.0
	Sometimes	1291	12.4	12.4	95.4
	Often	476	4.6	4.6	100.0
	Total	10382	100.0	100.0	

**I I have exaggerated fears that others may try to physically harm me.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	7017	67.6	67.6	67.6
	Occasionally	1614	15.5	15.5	83.1
	Sometimes	1255	12.1	12.1	95.2
	Often	496	4.8	4.8	100.0
	Total	10382	100.0	100.0	

**I feel more fearful of what other people may do to me than I should.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	6008	57.9	57.9	57.9
	Occasionally	2155	20.8	20.8	78.6
	Sometimes	1501	14.5	14.5	93.1
	Often	718	6.9	6.9	100.0
	Total	10382	100.0	100.0	

**I would like help to reduce fears that other people may harm me.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	5888	56.7	56.7	56.7
	Maybe	3019	29.1	29.1	85.8
	Yes	1475	14.2	14.2	100.0
	Total	10382	100.0	100.0	

**I would like help to be more trusting of other people.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	4607	44.4	44.4	44.4
	Maybe	4019	38.7	38.7	83.1
	Yes	1756	16.9	16.9	100.0
	Total	10382	100.0	100.0	

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