**Supplementary material**

**The structure of schizotypal personality traits:**

**A cross-national study**

eTable 1.

Procedure of the study.

|  |
| --- |
| **Study 1 (D. Cicero).**  Undergraduates at a large Pacific, public university participated in exchange for partial completion of a course requirement. |
| **Study 2 (T. Kwapil).**  University of North Carolina at Greensboro received course credit for participating. The questionnaires were completed by all participants in mass screening sessions during five semesters. |
| **Study 3 (E. Fonseca-Pedrero).**  The Spanish sample was composed of university students enrolled in different courses at three Spanish institutions, the University of Oviedo (Educational Sciences and Psychology), the University of La Rioja (Educational Sciences), and the University of La Laguna (Psychology). Participants received no type of incentive for taking part. |
| **Study 4 (M. Compton).**  Participants who were enrolled in introductory psychology classes of Georgia State University were invited to volunteer via a recruitment statement posted to an online program used to manage the undergraduate research participation pool. Participating students received course credit, though students were not required to participate in this or any other study. |
| **Study 5 (M. Chmielewski).**  Participants were undergraduate students who were enrolled in various psychology courses at the University of Iowa. |
| **Study 6 (A. Raine).**  Participants consisted of a sample of adults in the community in Mauritius undergraduates who received course credit for filling out the SPQ derived from a birth cohort, and were representative of the country as a whole on gender and ethnicity |
| **Study 7 (A. Preti).**  This study was part of the Cagliari – Psychosis: Investigation on Risk Emergence (CAPIRE). The sample included participants from the first two waves of the CAPIRE study and targeting young adults attending the Cagliari University. These undergraduate samples were enrolled via a snowball procedure. Participation was voluntary and no compensation was given for taking part in the study. |
| **Study 8 (V. Wuthrich).**  Psychology students at the Macquarie Centre for Cognitive Science, Macquarie University, Sydney (Australia) participated in return for a course credit. All participants completed the computerized Likert version as part of other studies. |
| **Study 9 (A. Cohen).**  Participants were undergraduate students enrolled at Louisiana State University. Freshmen and sophomore students (N = 8,591) were approached by email to participate in an on-line survey, and offered a chance to win monetary compensation as part of a lottery (10 prizes of $25US). A five-point Likert scale of the full SPQ was administered in either computerized or standard paper and pencil formats. |
| **Study 10 (F. Larøi).**  Participants were selected from the general non clinical population. |
| **Study 11 (J. C. Badcock and A Jablensky).**  Participants consisted of a randomly selected sample of adults from the general community in Perth, Western Australia, taking part in the Western Australian Study of Schizophrenia. Participants were recruited by advertising or telephone screening in the local area. Inclusion criteria included age older than 18 years and fluency in English. Exclusion criteria included either a personal or family history of psychotic illness or a history of substance abuse/dependence, neurological disorder or head injury. Questionnaires were completed either at the study site or at participants’ homes. |
| **Study 12 (J. Laloyaux).**  Participants were selected from general population. The data are from an online study. Any person with a psychiatric disorder was excluded (based on self-report) from the study. |
| **Study 13 (A. Mechri).**  Participants were Tunisian students from the Faculty of Medicine and the Health Sciences High School of Monastir. Of 800 copies of the SPQ that were distributed, 524 were returned, of which 34 were not completely filled. The participation rate was 61.25%. |
| **Study 14 (R. Linscott).**  Participants were New Zealand born undergraduates. There were no exclusion criteria related to psychosis, other psychopathology, or substance use. All participants completed a range of questionnaires and tasks, including the SPQ. |
| **Studies 15 and 16 (E. Barkus).**  Participants were from the University of Wollongong, Australia. |
| **Study 17 (J. Suhr).**  Participants were unselected undergraduates from Ohio University enrolled in various psychology courses, who completed a large group screening that included many other psychological measures. Participants received course credit for participation. |
| **Study 18 (R. C.J. Chan).**  Undergraduates of five local universities in Beijing, Guangzhou, and Zhuhai were approached to take part in the current study. They were recruited by the mental health counseling centers of each university to take part in a survey of “everyday worries about others”. The survey was conducted in classrooms under the supervision of a counselor from the mental health counseling centers of the universities and research assistants. |
| **Study 19 (L. Zang).**  The participants completed an online questionnaire. The participants were recruited from the University of British Columbia (UBC) student community through the UBC Psychology human subject participant pool. Students were compensated with course credit for their participation. |
| **Study 20 (L. Zang).**  Participants were North Americans recruited through the Amazon Mechanical Turk website. |
| **Study 21 (I. Tsaousis).**  Participants were collected from a community sample as part of the Prefrontally-Mediated Endophenotypes (PreMES) study. Exclusion criteria included a personal history of head trauma, medical, or neurological condition; use of prescribed/recreational drugs; and having a first-degree relatives with a history of a DSM Axis I disorder. |

eTable 2.

Descriptive statistics of the Schizotypal Personality Questionnaire subscales.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Subscales | Mean | *SD* | Skewness | Kurtosis | Pc 90 |
| Ideas of Reference | 3.29 | 2.40 | 0.42 | -0.71 | 7 |
| Unusual Perceptual Experiences | 2.09 | 1.93 | 0.93 | 0.38 | 5 |
| Magical Thinking | 1.56 | 1.70 | 1.05 | 0.36 | 4 |
| Paranoid Ideation | 2.23 | 2.13 | 0.88 | -0.05 | 5 |
| Excessive Social Anxiety | 3.29 | 2.43 | 0.35 | -1.03 | 7 |
| No Close Friends | 2.06 | 2.11 | 1.06 | 0.47 | 5 |
| Constricted Affect | 1.78 | 1.76 | 1.05 | 0.66 | 4 |
| Odd Speech | 3.18 | 2.37 | 0.53 | -0.55 | 7 |
| Odd Behavior | 1.76 | 1.99 | 0.97 | -0.19 | 5 |

*Note*. Pc= Percentile

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| eTable 3. Goodness-of-fit indices of the confirmatory factor analyses across studies. | | | | | | | | | |
| Model | χ2 | *df* | RMSEA [95% CI] | CFI | TLI | WRMR | SRMR | AIC | BIC |
| **Study 1** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 31820.67 | 2627 | 0.059[0.058-0.060] | 0.768 | 0.761 | 3.963 | - | - | - |
| 9-factor item | 15148.92 | 2591 | 0.039[0.039-0.040] | 0.900 | 0.896 | 2.569 | - | - | - |
| Bifactor 9-factor item | 20062.67 | 2553 | 0.047[0.046-0.047] | 0.861 | 0.852 | 3.029 | - | - | - |
| 3-second-order item | 16105.70 | 2614 | 0.040[0.040-0.041] | 0.893 | 0.889 | 2.704 | - | - | - |
| 1-factor subs | 2567.10 | 27 | 0.172[0.167-0.178] | 0.813 | 0.751 | 5.423 | 0.077 | 114847.36 | 115010.26 |
| 2-factors subs | 1459.33 | 26 | 0.132[0.126-0.138] | 0.895 | 0.854 | 4.316 | 0.060 | 113530.51 | 113700.16 |
| 3-factor subs | 964.91 | 24 | 0.111[0.105-0.117] | 0.931 | 0.896 | 3.472 | 0.048 | 112958.65 | 113140.42 |
| 3-factor subs (PI) | 715.01 | 23 | 0.098[0.091-0.167] | 0.949 | 0.920 | 2.650 | 0.036 | 112667.12 | 112854.98 |
| 4-factor subs | 233.19 | 19 | 0.060[0.053-0.067] | 0.984 | 0.970 | 1.577 | 0.021 | 112115.29 | 112327.95 |
| Bifactor-3 subs | 599.74 | 20 | 0.098[0.092-0.105] | 0.957 | 0.919 | 2.655 | 0.036 | 112545.31 | 112757.37 |
| **Study 2** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 17870.9 | 2627 | 0.061[0.060-0.062] | 0.691 | 0.683 | 3.295 | - | - | - |
| 9-factor item | 7876.79 | 2591 | 0.036[0.035-0.037] | 0.893 | 0.888 | 2.005 | - | - | - |
| Bifactor 9-factor item | 10226.47 | 2553 | 0.044[0.043-0.045] | 0.845 | 0.836 | 2.349 | - | - | - |
| 3-second-order item | 8344.08 | 2614 | 0.038[0.037-0.038] | 0.884 | 0.880 | 2.120 | - | - | - |
| 1-factor subs | 1429.94 | 27 | 0.182[0.174-0.191] | 0.713 | 0.617 | 4.669 | 0.094 | 56110.80 | 56255.31 |
| 2-factors subs | 769.90 | 26 | 0.136[0.127-0.144] | 0.847 | 0.788 | 3.708 | 0.070 | 55358.73 | 55508.53 |
| 3-factor subs | 533.96 | 24 | 0.117[0.107-0.126] | 0.895 | 0.843 | 3.198 | 0.061 | 55096.99 | 55257.49 |
| 3-factor subs (PI) | 375.52 | 23 | 0.099[0.091-0.108] | 0.928 | 0.887 | 2.344 | 0.044 | 54922.05 | 55087.49 |
| 4-factor subs | 128.34 | 19 | 0.061[0.051-0.071] | 0.978 | 0.957 | 1.350 | 0.025 | 54649.80 | 54837.05 |
| Bifactor-3 subs | 421.29 | 20 | 0.114[0.104-0.123] | 0.918 | 0.852 | 2.855 | 0.054 | 54973.50 | 55155.39 |
| **Study 3** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 11605.17 | 2627 | 0.055[0.054-0.056] | 0.551 | 0.538 | 2.756 | - | - | - |
| 9-factor item | 5462.55 | 2591 | 0.031[0.030-0.033] | 0.856 | 0.850 | 1.696 | - | - | - |
| Bifactor 9-factor item | 6949.17 | 2553 | 0.039[0.038-0.040] | 0.780 | 0.767 | 1.988 | - | - | - |
| 3-second-order item | 5705.88 | 2614 | 0.032[0.031-0.034] | 0.845 | 0.840 | 1.779 | - | - | - |
| 1-factor subs | 905.66 | 27 | 0.170[0.161-0.180] | 0.614 | 0.485 | 4.343 | 0.102 | 39031.42 | 39167.06 |
| 2-factors subs | 387.85 | 26 | 0.111[0.102-0.144] | 0.840 | 0.779 | 3.045 | 0.071 | 38453.52 | 38591.18 |
| 3-factor subs | 290.92 | 24 | 0.100[0.089-0.110] | 0.882 | 0.823 | 2.584 | 0.059 | 38344.45 | 38495.17 |
| 3-factor subs (PI) | 211.70 | 23 | 0.085[0.075-0.096] | 0.917 | 0.870 | 1.907 | 0.043 | 38257.04 | 38412.77 |
| 4-factor subs | 94.22 | 19 | 0.059[0.048-0.072] | 0.967 | 0.937 | 1.385 | 0.031 | 38132.65 | 38308.48 |
| Bifactor-3 subs | 215.77 | 19 | 0.093[0.082-0.105] | 0.914 | 0.845 | 2.031 | 0.047 | 38270.08 | 38440.88 |
| **Study 4** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 11733.16 | 2627 | 0.054[0.053-0.055] | 0.774 | 0.768 | 2.588 | - | - | - |
| 9-factor item | 6457.70 | 2591 | 0.035[0.034-0.036] | 0.904 | 0.900 | 1.755 | - | - | - |
| Bifactor 9-factor item | 7564.98 | 2553 | 0.041[0.040-0.042] | 0.876 | 0.869 | 1.950 | - | - | - |
| 3-second-order item | 8672.83 | 2614 | 0.037[0.036-0.038] | 0.894 | 0.891 | 1.873 | - | - | - |
| 1-factor subs | 970.63 | 27 | 0.171[0.162-0.181] | 0.792 | 0.723 | 3.538 | 0.081 | 432118.44 | 43455.65 |
| 2-factors subs | 555.06 | 26 | 0.131[0.121-0.140] | 0.883 | 0.839 | 2.796 | 0.062 | 42735.42 | 42877.79 |
| 3-factor subs | 424.17 | 24 | 0.118[0.109-0.128] | 0.912 | 0.868 | 2.465 | 0.055 | 42584.70 | 42737.22 |
| 3-factor subs (PI) | 300.159 | 23 | 0.101[0.091-0.111] | 0.939 | 0.904 | 1.947 | 0.042 | 42445.38 | 42602.91 |
| 4-factor subs | 89.55 | 19 | 0.056[0.048-0.068] | 0.974 | 0.971 | 1.092 | 0.023 | 42212.67 | 42390.53 |
| Bifactor-3 subs | 311.45 | 20 | 0.0111[0.01-0.122] | 0.936 | 0.884 | 2.249 | 0.055 | 42465.46 | 42638.24 |
| **Study 5** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 5589.52 | 2627 | 0.047[0.045-0.048] | 0.744 | 0.737 | 1.952 | - | - | - |
| 9-factor item | 3857.66 | 2591 | 0.030[0.028-0.032] | 0.898 | 0.894 | 1.386 | - | - | - |
| Bifactor 9-factor item | 4036.15 | 2553 | 0.032[0.020-0.034] | 0.881 | 0.874 | 1.435 | - | - | - |
| 3-Second-order item | 3974.31 | 2614 | 0.031[0.029-0.032] | 0.891 | 0.887 | 1.436 | - | - | - |
| 1-factor subs | 419.37 | 27 | 0.162[0.148-0.176] | 0.760 | 0.680 | 2.373 | 0.082 | 19340.50 | 19457.20 |
| 2-factors subs | 243.87 | 26 | 0.123[0.109-0.137] | 0.867 | 0.825 | 1.878 | 0.064 | 19135.67 | 19256.65 |
| 3-factor subs | 183.29 | 24 | 0.109[0.094-0.124] | 0.903 | 0.855 | 1.679 | 0.057 | 19068.59 | 19198.22 |
| 3-factor subs (PI) | 136.31 | 23 | 0.094[0.079-0.110] | 0.931 | 0.891 | 1.408 | 0.045 | 19014.10 | 19147.95 |
| 4-factor subs | 49.66 | 19 | 0.054[0.036-0.072] | 0.981 | 0.964 | 0.797 | 0.026 | 18925.08 | 19076.07 |
| Bifactor-3 subs | 128.18 | 20 | 0.099[0.083-0.115] | 0.934 | 0.889 | 1.301 | 0.042 | 12013.96 | 19260.80 |
| **Study 6** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 7279.77 | 2627 | 0.038[0.037-0.039] | 0.855 | 0.851 | 1.851 | - | - | - |
| 9-factor item | 4591.46 | 2591 | 0.025[0.024-0.027] | 0.938 | 0.935 | 1.357 | - | - | - |
| Bifactor 9-factor item | 5301.44 | 2553 | 0.030[0.029-0.031] | 0.914 | 0.909 | 1.493 | - | - | - |
| 3-second-order item | 4905.43 | 2614 | 0.027[0.026-0.028] | 0.924 | 0.926 | 1.430 | - | - | - |
| 1-factor subs | 644.77 | 27 | 0.138[0.129-0.147] | 0.858 | 0.811 | 3.047 | 0.069 | 42085.42 | 42222.88 |
| 2-factors subs | 443.99 | 26 | 0.116[0.106-0.125] | 0.904 | 0.867 | 2.524 | 0.058 | 41866.20 | 42008.75 |
| 3-factor subs | 254.69 | 24 | 0.089[0.080-0.100] | 0.947 | 0.921 | 1.960 | 0.044 | 41660.60 | 41813.36 |
| 3-factor subs (PI) | 224.03 | 23 | 0.085[0.075-0.096] | 0.954 | 0.928 | 1.724 | 0.039 | 41630.73 | 41788.55 |
| 4-factor subs | 105.49 | 19 | 0.062[0.050-0.073] | 0.980 | 0.962 | 1.244 | 0.027 | 41507.52 | 41685.70 |
| Bifactor-3 subs | 210.59 | 20 | 0.089[0.078-0.100] | 0.956 | 0.921 | 1.604 | 0.034 | 41619.39 | 41729.48 |
| **Study 7** |  |  |  |  |  |  |  |  |  |
| 1-factor item item | 5476.91 | 2627 | 0.041[0.039-0.042] | 0.792 | 0.831 | 1.831 | - | - | - |
| 9-factor item item | 3459.02 | 2591 | 0.023[0.021-0.025] | 0.937 | 0.934 | 1.218 | - | - | - |
| Bifactor 9-factor item | 3823.74 | 2553 | 0.028[0.026-0.029] | 0.907 | 0.902 | 1.343 | - | - | - |
| 3-second-order item | 3631.55 | 2614 | 0.024[0.023-0.026] | 0.926 | 0.923 | 1.292 | - | - | - |
| 1-factor subs | 333.61 | 27 | 0.132[0.120-0.145] | 0.794 | 0.725 | 2.266 | 0.081 | 22184.9 | 22305.7 |
| 2-factors subs | 202.69 | 26 | 0.102[0.089-0.116] | 0.881 | 0.835 | 2.089 | 0.067 | 22003.93 | 22129.24 |
| 3-factor subs | 180.42 | 24 | 0.100[0.087-0.114] | 0.895 | 0.842 | 2.028 | 0.065 | 21974.97 | 22113.31 |
| 3-factor subs (PI) | 140.64 | 23 | 0.089[0.075-0.103] | 0.921 | 0.876 | 1.638 | 0.053 | 21928.30 | 22067.04 |
| 4-factor subs | 55.19 | 19 | 0.054[0.038-0.071] | 0.976 | 0.954 | 0.806 | 0.026 | 21824.97 | 21981.62 |
| Bifactor-3 subs | 72.24 | 20 | 0.063[0.048-0.080] | 0.965 | 0.937 | 1.158 | 0.037 | 21846.05 | 21998.22 |
| **Study 8** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 5968.41 | 2627 | 0.053[0.052-0.055] | 0.708 | 0.699 | 1.987 | - | - | - |
| 9-factor item | 3597.66 | 2591 | 0.030[0.027-0.031] | 0.912 | 0.908 | 1.283 | - | - | - |
| Bifactor 9-factor item | 4204.93 | 2553 | 0.038[0.036-0.040] | 0.855 | 0.847 | 1.483 | - | - | - |
| 3-second-order item | 3776.54 | 2614 | 0.031[0.024-0.033] | 0.903 | 0.899 | 1.343 | - | - | - |
| 1-factor subs | 486.33 | 27 | 0.196[0.181-0.211] | 0.665 | 0.554 | 3.025 | 0.110 | 16515.40 | 16626.04 |
| 2-factors subs | 252.99 | 26 | 0.140[0.125-0.156] | 0.835 | 0.771 | 2.278 | 0.080 | 16265.37 | 16380.12 |
| 3-factor subs | 182.11 | 24 | 0.122[0.106-0.138] | 0.885 | 0.827 | 2.034 | 0.074 | 16194.10 | 16317.07 |
| 3-factor subs (PI) | 165.38 | 23 | 0.090[0.073-0.107] | 0.940 | 0.906 | 1.393 | 0.047 | 16112.70 | 16239.70 |
| 4-factor subs | 54.935 | 19 | 0.065[0.045-0.086] | 0.974 | 0.950 | 0.948 | 0.032 | 16067.05 | 16210.48 |
| Bifactor-3 subs | 128.79 | 20 | 0.111[0.093-0.129] | 0.921 | 0. 857 | 1.827 | 0.063 | 16140.83 | 16280.17 |
| **Study 9** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 13399.9 | 2627 | 0.053[0.052-0.054] | 0.783 | 0.777 | 2.824 | - | - | - |
| 9-factor item | 6282.20 | 2591 | 0.031[0.030-0.032] | 0.925 | 0.922 | 1.742 | - | - | - |
| Bifactor 9-factor item | 8543.23 | 2553 | 0.040[0.039-0.041] | 0.879 | 0.872 | 2.125 | - | - | - |
| 3-Second-order item | 6777.23 | 2614 | 0.033[0.032-0.034] | 0.916 | 0.913 | 1.859 | - | - | - |
| 1-factor subs | 1192.17 | 27 | 0.172[0.164-0.180] | 0.741 | 0.654 | 4.237 | 0.094 | 51032.40 | 51175.14 |
| 2-factors subs | 581.78 | 26 | 0.121[0.113-0.130] | 0.876 | 0.829 | 3.357 | 0.069 | 50258.76 | 50406.73 |
| 3-factor sub | 418.06 | 24 | 0.106[0.097-0.115] | 0.912 | 0.869 | 2.861 | 0.059 | 50058.37 | 50216.9 |
| 3-factor subs (PI) | 294.59 | 23 | 0.090[0.081-0.099] | 0.940 | 0.905 | 2.247 | 0.045 | 49901.70 | 50065.53 |
| 4-factor subs | 90.65 | 19 | 0.051[0.041-0.062] | 0.984 | 0.970 | 1.253 | 0.025 | 49662.27 | 49847.27 |
| Bifactor-3 subs | 305.36 | 20 | 0.099[0.089-0.109] | 0.937 | 0.886 | 2.565 | 0.053 | 49918.04 | 50097.73 |
| **Study 10** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 4682.93 | 2627 | 0.047[0.045-0.049] | 0.626 | 0.616 | 1.711 | - | - | - |
| 9-factor item | 3382.16 | 2591 | 0.029[0.026-0.032] | 0.856 | 0.850 | 1.252 | - | - | - |
| Bifactor 9-factor item | 3702.52 | 2553 | 0.036[0.033-0.038] | 0.791 | 0.779 | 1.373 | - | - | - |
| 3-second-order item | 3515.09 | 2614 | 0.031[0.028-0.034] | 0.835 | 0.830 | 1.319 | - | - | - |
| 1-factor subs | 326.80 | 27 | 0.176[0.160-0.194] | 0.649 | 0.532 | 2.554 | 0.104 | 13133.99 | 13238.69 |
| 2-factors subs | 186.31 | 26 | 0.124[0.106-0.142] | 0.833 | 0.769 | 1.982 | 0.077 | 12968.86 | 13077.44 |
| 3-factor subs | 163.65 | 24 | 0.128[0.110-0.147] | 0.836 | 0.755 | 1.951 | 0.077 | 12967.36 | 13038.69 |
| 3-factor subs (PI) | 112.32 | 23 | 0.102[0.085-0.124] | 0.895 | 0.836 | 1.461 | 0.059 | 12915.19 | 13035.40 |
| 4 factor subs | 54.84 | 19 | 0.073[0.051-0.096] | 0.958 | 0.920 | 0.963 | 0.038 | 12862.85 | 12998.57 |
| Bifactor-3 subs | 90.95 | 20 | 0.100[0.079-0.212] | 0.917 | 0.850 | 1.582 | 0.061 | 12898.99 | 13030.84 |
| **Study 11** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 4048.19 | 2627 | 0.040[0.037-0.042] | 0.704 | 0.742 | 1.665 | - | - | - |
| 9-factor item | 3114.15 | 2591 | 0.025[0.021-0.027] | 0.892 | 0.904 | 1.218 | - | - | - |
| Bifactor 9-factor item | 3330.01 | 2553 | 0.030[0.027-0.033] | 0.863 | 0.853 | 1.325 | - | - | - |
| 3-second-order item | 3187.73 | 2614 | 0.025[0.022-0.028] | 0.899 | 0.896 | 1.262 | - | - | - |
| 1-factor sub | 253.57 | 27 | 0.157[0.139-0.175] | 0.953 | 0.606 | 2.168 | 0.102 | 11112.59 | 11216.13 |
| 2-factors subs | 122.03 | 26 | 0.104[0.086-0.123] | 0.875 | 0.826 | 1.687 | 0.075 | 10928.71 | 11036.08 |
| 3-factor sub | 107.07 | 24 | 0.101[0.082-0.120] | 0.892 | 0.837 | 1.578 | 0.074 | 10913.58 | 11028.62 |
| 3-factor subs (PI) | 58.73 | 23 | 0.067[0.046-0.089] | 0.953 | 0.927 | 1.051 | 0.046 | 10852.47 | 10971.35 |
| 4 factor subs | 33.26 | 19 | 0.022[0-0.054] | 0.996 | 0.992 | 0.722 | 0.027 | 10812.98 | 10942.20 |
| Bifactor-3 subs | 54.81 | 20 | 0.071[0.049-0.094] | 0.955 | 0.918 | 1.154 | 0.048 | 10851.62 | 10982.01 |
| **Study 12** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 6658.94 | 2627 | 0.054[0.052-0.057] | 0.680 | 0.678 | 2.134 | - | - | - |
| 9-factor item | 3841.24 | 2591 | 0.030[0.028-0.032] | 0.902 | 0.898 | 1.367 | - | - | - |
| Bifactor 9-factor item | 4649.17 | 2553 | 0.039[0.037-0.041] | 0.837 | 0.828 | 1.608 | - | - | - |
| 3-second-order item | 4083.46 | 2614 | 0.032[0.030-0.034] | 0.886 | 0.882 | 1.464 | - | - | - |
| 1-factor subs | 481.32 | 27 | 0.177[0.164-0.191] | 0.696 | 0.595 | 2.917 | 0.100 | 19360.99 | 19476.66 |
| 2-factors subs | 233.55 | 26 | 0.122[0.108-0.132] | 0.861 | 0.808 | 2.111 | 0.072 | 19083.93 | 19203.89 |
| 3-factor subs | 217.32 | 24 | 0.123[0.108-0.138] | 0.871 | 0.806 | 2.045 | 0.069 | 19068.82 | 19197.34 |
| 3-factor subs (PI) | 160.74 | 23 | 0.106[0.091-0.121] | 0.908 | 0.856 | 1.598 | 0.054 | 19007.76 | 19140.56 |
| 4-factor subs | 66.64 | 19 | 0.068[0.051-0.087] | 0.968 | 0.940 | 1.085 | 0.035 | 18912.47 | 19062.42 |
| Bifactor-3 subs | 113.52 | 20 | 0.093[0.077-0.110] | 0.937 | 0.887 | 1.601 | 0.053 | 18963.80 | 19109.46 |
| **Study 13** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 4561.20 | 2627 | 0.040[0.038-0.042] | 0.777 | 0.771 | 1.550 | - | - | - |
| 9-factor item | 3400.16 | 2591 | 0.026[0.024-0.029] | 0.907 | 0.903 | 1.192 | - | - | - |
| Bifactor 9-factor item | 3859.26 | 2553 | 0.033[0.031-0.036] | 0.850 | 0.841 | 1.340 | - | - | - |
| 3-second-order item | 3553.87 | 2614 | 0.028[0.026-0.030] | 0.892 | 0.888 | 1.248 | - | - | - |
| 1-factor sub | 440.43 | 27 | 0.183[0.168-0.198] | 0.745 | 0.660 | 2.903 | 0.098 | 16558.32 | 16669.74 |
| 2-factors subs | 250.05 | 26 | 0.137[0.122-0.153] | 0.862 | 0.809 | 2.434 | 0.081 | 16367.96 | 16483.51 |
| 3-factor sub | 181.88 | 24 | 0.120[0.104-0.136] | 0.903 | 0.854 | 2.128 | 0.071 | 16303.51 | 16427.32 |
| 3-factor subs (PI) | 123.91 | 23 | 0.098[0.081-0.115] | 0.938 | 0.903 | 1.670 | 0.055 | 16248.47 | 16376.40 |
| 4-factor subs | 70.34 | 19 | 0.077[0.058-0.096] | 0.968 | 0.940 | 1.167 | 0.039 | 16204.13 | 16348.57 |
| Bifactor-3 subs | 122.69 | 20 | 0.106[0.088-0.124] | 0.937 | 0.886 | 1.572 | 0.052 | 16253.67 | 16339.98 |
| **Study 14** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 193772.21 | 2627 | 0.061[0.060-0.062] | 0.657 | 0.648 | 3.469 | - | - | - |
| 9-factor item | 7840.70 | 2591 | 0.035[0.034-0.036] | 0.893 | 0.888 | 2.007 | - | - | - |
| Bifactor 9-factor item | 10635.34 | 2553 | 0.043[0.042-0.044] | 0.835 | 0.825 | 2.701 | - | - | - |
| 3-second-order item | 8200.95 | 2614 | 0.035[0.035-0.036] | 0.866 | 0.885 | 2.111 | - | - | - |
| 1-factor subs | 1499.37 | 27 | 0.179[0.172-0.187] | 0.669 | 0.559 | 5.088 | 0.102 | 60897.45 | 61044.30 |
| 2-factors subs | 693.07 | 26 | 0.123[0.115-0.131] | 0.850 | 0.792 | 4.045 | 0.076 | 59920.81 | 60073.06 |
| 3-factor subs | 515.74 | 24 | 0.110[0.102-0.118] | 0.889 | 0.834 | 3.517 | 0.067 | 59714.98 | 59878.10 |
| 3-factor subs (PI) | 290.21 | 23 | 0.083[0.074-0.091] | 0.940 | 0.906 | 2.345 | 0.043 | 59452.45 | 59621.01 |
| 4 factor subs | 82.45 | 19 | 0.044[0.035-0.054] | 0.986 | 0.973 | 1.226 | 0.022 | 59216.93 | 59407.23 |
| Bifactor-3 subs | 304.44 | 20 | 0.092[0.083-0.100] | 0.936 | 0.885 | 2.708 | 0.050 | 59475.29 | 59660.16 |
| **Study 15** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 11048.30 | 2627 | 0.064[0.063-0.066] | 0.657 | 0.647 | 2.699 | - | - | - |
| 9-factor item | 5458.01 | 2591 | 0.038[0.036-0.039] | 0.883 | 0.878 | 1.679 | - | - | - |
| Bifactor 9-factor item | 6934.07 | 2553 | 0.047[0.046-0.048] | 0.822 | 0.811 | 1.978 | - | - | - |
| 3-second-order item | 5921.59 | 2614 | 0.040[0.039-0.042] | 0.865 | 0.861 | 1.812 | - | - | - |
| 1-factor subs | 820.75 | 27 | 0.195[0.184-0.206] | 0.682 | 0.576 | 3.883 | 0.103 | 29179.09 | 29304.69 |
| 2-factors subs | 411.26 | 26 | 0.138[0.127-0.150] | 0.846 | 0.786 | 2.853 | 0.075 | 28742.62 | 28872.87 |
| 3-factor subs | 318.55 | 24 | 0.126[0.114-0.138] | 0.882 | 0.823 | 2.581 | 0.069 | 28646.97 | 28786.52 |
| 3-factor subs (PI) | 240.62 | 23 | 0.111[0.098-0.123] | 0.913 | 0.863 | 2.120 | 0.056 | 28567.83 | 28712.03 |
| 4-factor subs | 93.01 | 19 | 0.071[0.057-0.086] | 0.970 | 0.944 | 1.422 | 0.036 | 28419.06 | 28581.86 |
| Bifactor-3 subs | 222.94 | 19 | 0.114[0.101-0.128] | 0.919 | 0.854 | 2.354 | 0.114 | 28554.0 | 28712.21 |
| **Study 16** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 10098.70 | 2627 | 0.050[0.049-0.051] | 0.653 | 0.643 | 2.508 | - | - | - |
| 9-factor item | 5430.01 | 2591 | 0.032[0.031-0.033] | 0.859 | 0.853 | 1.711 | - | - | - |
| Bifactor 9-factor item | 6695.36 | 2553 | 0.038[0.037-0.039] | 0.807 | 0.796 | 1.917 | - | - | - |
| 3-Second-order item | 5681.75 | 2614 | 0.033[0.032-0.034] | 0.849 | 0.844 | 1.785 | - | - | - |
| 1-factor sub | 809.89 | 27 | 0.159[0.150-0.169] | 0.641 | 0.521 | 4.634 | 0.105 | 40194.52 | 40330.66 |
| 2-factors subs | 312.61 | 26 | 0.100[0.090-0.110] | 0.864 | 0.812 | 3.024 | 0.066 | 39647.53 | 39788.71 |
| 3-factor sub | 244.03 | 24 | 0.090[0.080-0.100] | 0.899 | 0.849 | 2.742 | 0.059 | 39563.27 | 39714.54 |
| 3-factor subs (PI) | 152.02 | 23 | 0.070[0.060-0.081] | 0.941 | 0.907 | 2.120 | 0.045 | 39462.43 | 39618.74 |
| 4-factor subs | 50.62 | 19 | 0.038[0.026-0.051] | 0.986 | 0.973 | 1.182 | 0.025 | 39358.24 | 39534.63 |
| Bifactor-3 subs | 165.11 | 20 | 0.080[0.069-0.091] | 0.933 | 0.880 | 2.306 | 0.050 | 39487.53 | 39658.97 |
| **Study 17** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 11830.6 | 2627 | 0.055[0.054-0.056] | 0.710 | 0.702 | 2.676 | - | - | - |
| 9-factor item | 5783.67 | 2591 | 0.032[0.030-0.034] | 0.900 | 0.895 | 1.673 | - | - | - |
| Bifactor 9-factor item | 7161.71 | 2553 | 0.039[0.038-0.040] | 0.855 | 0.847 | 1.929 | - | - | - |
| 3-second-order item | 6033.03 | 2614 | 0.033[0.032-0.035] | 0.892 | 0.889 | 1.749 | - | - | - |
| 1-factor subs | 892.03 | 27 | 0.166[0.156-0.175] | 0.751 | 0.668 | 3.594 | 0.089 | 41665.82 | 41862.82 |
| 2-factors subs | 447.16 | 26 | 0.118[0.108-0.127] | 0.879 | 0.832 | 2.665 | 0.065 | 41127.79 | 41269.58 |
| 3-factor subs | 343.14 | 24 | 0.107[0.097-0.117] | 0.908 | 0.862 | 2.380 | 0.059 | 41006.45 | 41158.37 |
| 3-factor subs (PI) | 204.97 | 23 | 0.082[0.072-0.093] | 0.948 | 0.918 | 1.720 | 0.041 | 40840.70 | 40997.72 |
| 4-factor subs | 101.81 | 19 | 0.061[0.050-0.073] | 0.976 | 0.955 | 1.220 | 0.028 | 40726.36 | 40903.59 |
| Bifactor-3 subs | 194.62 | 20 | 0.086[0.076-0.098] | 0.950 | 0.910 | 1.711 | 0.042 | 40835.30 | 41007.47 |
| **Study 18** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 40088.66 | 2627 | 0.054[0.053-0.055] | 0.654 | 0.648 | 4.363 | - | - | - |
| 9-factor item | 18951.57 | 2591 | 0.036[0.035-0.037] | 0.849 | 0.843 | 2.951 | - | - | - |
| Bifactor 9-factor item | 26793.17 | 2553 | 0.044[0.043-0.044] | 0.776 | 0.763 | 3.477 | - | - | - |
| 3-second-order item | 21875.75 | 2614 | 0.039[0.038-0.039] | 0.822 | 0.812 | 3.219 | - | - | - |
| 1-factor subs | 3670.61 | 27 | 0.166[0.161-0.170] | 0.709 | 0.612 | 9.193 | 0.100 | 166359.60 | 166535.07 |
| 2-factors subs | 2160.86 | 26 | 0.129[0.125-0.134] | 0.829 | 0.764 | 7.551 | 0.081 | 164679.31 | 164861.26 |
| 3-factor subs | 1598.79 | 24 | 0.115[0.110-0.120] | 0.875 | 0.812 | 6.930 | 0.081 | 164060.79 | 164255.74 |
| 3-factor subs (PI) | 1006.01 | 23 | 0.093[0.088-0.098] | 0.921 | 0.877 | 5.339 | 0.057 | 163388.86 | 163590.74 |
| 4-factor subs | 640.04 | 19 | 0.082[0.076-0.087] | 0.950 | 0.906 | 4.059 | 0.043 | 162988.67 | 163216.11 |
| Bifactor-3 subs | 1023.66 | 20 | 0.101[0.096-0.106] | 0.920 | 0.856 | 4.916 | 0.054 | 163401.48 | 163622.42 |
| **Study 19** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 193002.46 | 2627 | 0.059[0.058-0.059] | 0.699 | 0.691 | 3.365 | - | - | - |
| 9-factor item | 83726.61 | 2591 | 0.035[0.034-0.036] | 0.896 | 0.891 | 2.040 | - | - | - |
| Bifactor 9-factor item | 11346.85 | 2553 | 0.043[0.042-0.044] | 0.841 | 0.832 | 2.445 | - | - | - |
| 3-second-order item | 8647.30 | 2614 | 0.035[0.035-0.036] | 0.891 | 0.888 | 2.119 | - | - | - |
| 1-factor subs | 1490.01 | 27 | 0.171[0.164-0.179] | 0.732 | 0.643 | 4.793 | 0.092 | 65394.50 | 65543.60 |
| 2-factors subs | 674.96 | 26 | 0.116[0.109-0.124] | 0.881 | 0.835 | 3.439 | 0.064 | 64433.02 | 64587.65 |
| 3-factor subs | 459.46 | 24 | 0.099[0.091-0.107] | 0.920 | 0.880 | 2.828 | 0.053 | 64186.70 | 64352.40 |
| 3-factor subs (PI) | 276.68 | 23 | 0.077[0.069-0.086] | 0.954 | 0.927 | 1.928 | 0.036 | 63974.60 | 64195.81 |
| 4-factor subs | 138.61 | 19 | 0.058[0.049-0.068] | 0.978 | 0.959 | 1.391 | 0.026 | 63810.60 | 64012.80 |
| Bifactor-3 subs | 333.22 | 20 | 0.092[0.083-0.101] | 0.943 | 0.987 | 2.405 | 0.045 | 64049.29 | 64236.96 |
| **Study 20** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 16401.42 | 2627 | 0.062[0.061-0.063] | 0.770 | 0.764 | 3.088 | - | - | - |
| 9-factor item | 7466.88 | 2591 | 0.037[0.036-0.038] | 0.919 | 0.915 | 1.880 | - | - | - |
| Bifactor 9-factor item | 10122.64 | 2553 | 0.046[0.045-0.047] | 0.879 | 0.866 | 2.779 | - | - | - |
| 3-second-order item | 8005.93 | 2614 | 0.039[0.038-0.040] | 0.891 | 0.907 | 2.005 | - | - | - |
| 1-factor subs | 1308.80 | 27 | 0.185[0.177-0.194] | 0.785 | 0.714 | 3.942 | 0.087 | 50688.22 | 50829.54 |
| 2-factors subs | 766.65 | 26 | 0.143[0.135-0.152] | 0.876 | 0.828 | 3.051 | 0.068 | 50035.73 | 50182.29 |
| 3-factor subs | 556.97 | 24 | 0.127[0.118-0.136] | 0.911 | 0.866 | 2.645 | 0.058 | 49779.91 | 49936.94 |
| 3-factor subs (PI) | 381.49 | 23 | 0.106[0.097-0.116] | 0.940 | 0.906 | 1.928 | 0.043 | 49571.82 | 49734.08 |
| 4-factor subs | 149.65 | 19 | 0.070[0.060-0.081] | 0.978 | 0.959 | 1.353 | 0.027 | 49300.16 | 49483.86 |
| Bifactor-3 subs | 291.05 | 20 | 0.099[0.089-0.011] | 0.955 | 0.918 | 1.855 | 0.040 | 49467.90 | 49645.93 |
| **Study 21** |  |  |  |  |  |  |  |  |  |
| 1-factor item | 10002.04 | 2627 | 0.052[0.051-0.053] | 0.695 | 0.687 | 2.524 | - | - | - |
| 9-factor item | 4899.04 | 2591 | 0.029[0.028-0.031] | 0.905 | 0.901 | 1.547 | - | - | - |
| Bifactor 9-factor item | 6761.99 | 2553 | 0.040[0.039-0.041] | 0.826 | 0.816 | 1.938 | - | - | - |
| 3-second-order item | 5384.11 | 2614 | 0.031[0.030-0.033] | 0.890 | 0.886 | 1.660 | - | - | - |
| 1-factor subs | 938.14 | 27 | 0.180[0.170-0.190] | 0.679 | 0.571 | 4.038 | 0.102 | 36756.02 | 36889.62 |
| 2-factors subs | 415.94 | 26 | 0.120[0.110-0.130] | 0.862 | 0.809 | 3.224 | 0.078 | 36126.79 | 36265.39 |
| 3-factor subs | 311.63 | 24 | 0.107[0.097-0.118] | 0.899 | 0.848 | 2.708 | 0.065 | 36005.09 | 36153.53 |
| 3-factor subs (PI) | 232.69 | 23 | 0.094[0.083-0.105] | 0.926 | 0.884 | 2.049 | 0.049 | 35767.61 | 36065.34 |
| 4-factor subs | 99.947 | 19 | 0.064[0.052-0.077] | 0.971 | 0.946 | 1.417 | 0.033 | 35767.61 | 35940.78 |
| Bifactor-3 subs | 223.94 | 20 | 0.099[0.088-0.011] | 0.928 | 0.870 | 1.901 | 0.046 | 35910.95 | 36079.18 |

*Note.* Subs: Subscales; PI: PI: Paranoid Ideation; χ2: Chi Square; *df*: Degrees of freedom; RMSEA: Root Mean Square Error of Approximation; CI: Confidence Interval; CFI: Comparative Fit Index; TLI: Tucker-Lewis Index; SRMR: Standardized Root Mean Square Residual; WRMR: Standardized Root Mean Square Residual; AIC: Akaike Information Criterion; BIC: Bayesian Information Criterion. Studies 1-21 refer to the studies listed in Table 1.

eTable 4.

Standardized factor loadings for the three-factor model at individual (within) and site (between) levels.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Factor | | |
|  | I | II | III |
| MGT | 0.73[0.68] |  |  |
| UPE | 0.57[0.46] |  |  |
| IREF | 0.75[0.99\*] |  |  |
| PI | 0.49[0.08] | 0.35[0.73] |  |
| ESA |  | 0.63[0.39] |  |
| NCF |  | 0.81[0.85] |  |
| CA |  | 0.84[0.73] |  |
| OB |  |  | 0.68[0.78] |
| OS |  |  | 0.78[0.92] |

*\*Higher than 1.0.*

*Note*. Brackets shows the standardized factorial loadings estimated at site level (i.e., between). All standardized factorial loadings estimated were statistically significant (*p*<0.01), except Paranoid ideation factor loading at between level.

MGT: Magical Thinking; UPE: Unusual Perceptual Experiences; IREF: Ideas of Reference; ESA: Excessive Social Anxiety; PI: Paranoid Ideation; NCF: No Close Friends; CA: Constricted Affect; OB: Odd Behavior; OS: Odd Speech.