Validation of a Measure of Resilience of Youths Exiting Residential Care

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Validation of GBTSA Longitudinal Baseline Resilience Scale

Introduction

Girls and Boys Town, South Africa (GBT), in partnership with Prof Adrian van Breda of the University of Johannesburg, have embarked on a longitudinal study into the process of leaving care among youth who have been in the care of GBT. This is a follow-up study to a previous study that retrospectively studied the same topic with a group of young adults who had left care some years previously. The longitudinal study aims to prospectively verify and deepen the Care-Leaving Theory (developed in the previous study) and to identify central variables that forecast the successful transitioning of care-leavers into independent living over at least a three-year period. The longitudinal study was approved by the Faculty of Humanities Academic Ethics Committee on 20 September 2012.

The longitudinal study requires the collection of baseline data from which to predict adjustment of youth as they journey out of care. In the second half of 2012, a scale was designed by the research team to that end, drawing on items from existing scales, many of which were revised to meet our purposes or discarded, as well as newly developed items. The resultant scale comprises 206 items, grouped into 29 themes or constructs. This measure has already been used in 2012 and 2013 to collect baseline data from the first cohorts of care-leavers.

Because the scale comprises items that were constructed specifically for this project or drawn from other scales developed mostly in the USA and have in some cases been substantially revised, we do not have data on the measurement properties of the scale in our context. In the discipline of social work, the development and validation of scales is called 'ecometrics', meaning the measurement of person-in-environment (i.e. ecological) constructs, and is regulated by the South African Council for Social Service Professionals. The scientific rigour of our study (particularly the quantitative component) depends, in part, on the sound measurement properties of our data collection tools.

Thus, this study aims to <u>evaluate the ecometric properties of the 'GBT Questionnaire for Care-Leavers'</u>.

Methodology

The ecometric validation method was based on my doctoral thesis (Van Breda, 2004) which was on the topic of multicultural scale development in social work, which in turn drew on the seminal work of ecometrists Walter Hudson (1982, 1985, 1997) and Annatjie Faul (1995), as well as key psychometric writers (e.g. De Vellis, 1991; Nunnally & Bernstein, 1994). Although my work has given considerable attention to multicultural scale development, this study did not specifically attend to cross-cultural validity.

Population and Sampling. Ecometric validation studies do not aim to establish population norms, thus sample representivity is not a requirement. However, the sample must be heterogeneous (diverse) to ensure sufficient variance among participants. Convenience sampling that strives to ensure a diverse group of participants is indicated. Orme and Hudson (1995) recommend a sample of 450 to 550 participants for an ecometric validation, and this is borne out by my own experience.

The population for this validation was defined as South Africa young people in the age range of 14 to 21 years (the age range that the scale is intended for). From this population, the bulk of which constitutes children (people under the age of 18), a sample of approximately 500 participants was drawn. The reason for the larger sample was to ensure as diverse a sample as possible and to allow sufficient participants for comparisons across demographic groups. Data were collected in groups from seven sites to increase the heterogeneity of the sample, including high schools and Child and Youth Care Centres in three provinces, covering the full age range and ensuring racial and cultural diversity and good representation of those in the lower socioeconomic brackets.

Participants were recruited as follows:

1. Several sites that met the sampling criteria and for which one of the research team members had a point of access were approached. Several could not assist, but seven were able to do so in the last four months of 2013. The attached site information letter (Appendix A) was provided to prospective sites. Sites that agreed to participate signed an Organisational Consent Form (Appendix B).
2. The site was asked to recruit participants into the study (according to the guidelines in Appendix C) to protect the privacy of potential participants, using the attached participant information letter (Appendix D). This letter served to inform both the children and their parents or guardians.
3. Those who agreed to participate were asked to sign the informed consent form (Appendix E). Both the child and her/his parents/guardians were requested to sign the same form, unless the participants were 18 or older, in which case the participants signed for themselves.
4. Sites then administered the questionnaire to the participants anonymously, returning the completed questionnaires separately from the consent forms to me.

Data Collection Tool. The 'GBT Questionnaire for Care-Leavers' that has been validated includes the full questionnaire that is being used in the longitudinal care-leaving study, except for four sections that are specific to GBT care-leavers and that would not make sense to other people, viz: Relationships with GBT staff; Experiences of being in GBT; Feelings about leaving GBT; and Feelings about contacting GBT staff after I leave GBT. The GBT Questionnaire for Care-Leavers comprised 187 items. Incorporated into the GBT Questionnaire is the Impression Management Index (Van Breda & Potgieter, 2007), a scale that measures social desirability and that has been validated in South Africa.

In addition to our own scale, two other scales were incorporated to assess convergent validity, comprising 22 items, bringing the total scale to 209 items:
1. **Connor-Davidson Resilience Scale** (Connor & Davidson, 2003; Windle, Bennett, & Noyes, 2011). This scale, developed ten years ago and one of the more robust resilience measures available, will be utilised. (Permission from the scale developers is awaited.) The short version (10 items) of scale (usually 25 items), demonstrates good psychometric properties and has been meaningfully used in a South African study (Bruwer, Emsley, Kidd, Lochner, & Seedat, 2008). The scale has been purchased from the developers for use in this validation study.
2. **Multidimensional Scale of Perceived Social Support** (Bruwer et al., 2008). This scale, developed in the 1980s, has recently been validated with a sample of over 500 high school students in Cape Town. The scale comprises 12 items, grouped in three constructs (support from friends, family and significant others).

The questionnaire was paired with a separate answer sheet and a demographic information sheet. The complete data collection package is attached (Appendixes F and G).

Data Analysis. Data were captured and analysed in SPSS, using the following statistics (Van Breda, 2004):
1. Item analysis (including item variance, item means, item omissions and item-total correlations)
2. Internal consistency (reliability)
3. Standard error of measurement
4. Multiple group confirmatory analysis at item level
5. Convergent and discriminant analysis at subscale level

This validation was combined with a scale development exercise, designed to weed out the weakest items from the current scale with a view to enhancing the measurement properties of the remaining items. Thus, the above statistics were performed iteratively, in four rounds of analysis, with each round prompting the removal of a handful of items (usually not more than one per subscale) followed by a repeat of the analysis to see the ripple effect not only on the individual subscale but also on all the other scales.

Ethical Considerations

The ethical risks of this study were relatively low because the participants were not involved in an intervention that could potentially cause harm, and the questions in the questionnaire focus towards the positive aspects of life and do not obviously dig into painful life experiences. Nevertheless, any research with children has risks.

Within the broader ethical undertaking presented in the parent project to this study, the risks associated with the current study were minimised through the following mechanisms:

1. Permission to conduct the study was obtained from the head of each data collection site.
2. The privacy of the population was protected by contracting someone who works at the site to send out the invitations to participate.
3. Both parent (or guardian in the case of children who are in care) and child were requested to sign the consent form before participating.
4. The consent form included information about the study and their right to choose whether or not to participate, ensuring that the sample was voluntary and not coerced.
5. No identifying information (name, etc) was recorded on the data collection tools and the consent forms were kept separate from the data collection tools, so that there was no way of pairing data with names, thereby protecting the confidentiality of participants and the anonymity of the data.
6. Each site was requested before agreeing to take part in the study to have a referral mechanism in place for participants who experienced emotional or social distress as a result of this study.

The University of Johannesburg's Faculty of Humanities Ethics Committee gave ethical approval to the study (Appendix H).

Preparation of Dataset

Complete corrections to the Access Database. n=592
Export to Text. Import to SPSS. **SPSS 01**.

SPSS 02. Delete questionnaires with 164 or fewer items completed, i.e 78% or less completed = 21 respondents or 3.5% of the sample.
New n=571
Run **Syntax 01** for labels, reverse scoring and creation of scales.

Check IMI (acceptable limit is 58%)
Mean = 11.9%, SD = 12.8
38.2% scored 0
A further 31.7% scored 11.1% => 69.9% answered one or none of the 9 IMI in a socially desirable way.
Two people scored above 58% - delete both:
Allen Glen #178
Overport #54

Final n=569

Round 1 of Validation

SPSS 03. Run **Syntax 02** for Round 1 of the validation.
Copy and paste to Excel
(Export big correlation matrixes to Excel, then copy and paste, because SPSS hangs)

Excel 01. Item analysis
- ❖ **Means**
  - ➢ Should be close to the centre of the possible range
  - ➢ (3 is the midpoint of a 1-5 point scale)
  - ➢ Range from 2.15 (-.85 of 3) to 4.70 (+1.7 of 3)
  - ➢ Mean of the means is 3.62 – the responses are all positively skewed
    - ▪ 1.5-2.5 = 11 participants
    - ▪ 2.51-3.5 = 49
    - ▪ 3.51-4.5 = 139
    - ▪ 4.51-5.0 = 1
  - ➢ Flag (orange) the highest 14%, ie 29 items, ie 4.15-4.70
- ❖ **Variance**
  - ➢ Should be high
  - ➢ Range from 0.36 to 2.22
  - ➢ Mean variance = 1.11
  - ➢ Flag the lowest 14%, ie 30 items, ie 0.36-.070
- ❖ **Impression management**
  - ➢ Items should have low correlations with IMI
  - ➢ Range from -.134 to .287
  - ➢ Mean = .115 for positive correlations
  - ➢ Flag the highest 14%, ie 29 items, ie .287 to .175
- ❖ **Corrected Item-Total Correlations**
  - ➢ Should be high (standard: above .45)
  - ➢ Range from -.329 to .872
  - ➢ Mean = .496 (of positive correlations)
  - ➢ 75 items (35.9% of them) are below .45!
  - ➢ Flag the lowest 14%, ie 30 items, ie under .30
  - ➢ Light flag those in the .3s, ie 17 items
- ❖ **Omissions**
  - ➢ Should have low levels of item omission (standard: under 5%)
  - ➢ High rates of omissions for:
    - ▪ Work Relationships ~ 89% (most participants don't work)
    - ▪ Love Relationships ~ 43% (many participants not in a love relationship)
    - ▪ CD-RISC = 4-9% (last section of scale – fatigue?)
    - ▪ Social Support = 3-4% (second last section of scale – fatigue?). But the third last section (generosity) had very low omissions (~0.4%), so it's puzzling
  - ➢ Next highest rates of omissions for a few items in Community Relationships: 2.8% and lower
  - ➢ Nothing flagged

Scale	Alpha	Items	Analysis
Family Rel	0.818	5	❖ Very good reliability. Cannot be improved by removing items. ❖ Few items ❖ Item 1 has a high mean ❖ Item 6 has a high mean, also low variance ❖ IT Correlations all above .45 (lowest is .569), and all higher than with other scales (highest is .500). Highest for Social Supports, as expected. ❖ **Accept Scale without Changes**.
Friends Rel	0.749	7	❖ Good reliability. Can be improved by removing item 10 (friends get into trouble) which makes sense as this is not about the quality of the friendship. ❖ Item 7 has high mean. ❖ Items 11 & 12 have low variance. ❖ Item 10 has very low IT Cor (.234). ❖ Item 13 has borderline IT Cor (.394).

Scale	Alpha	Items	Analysis
			❖ All items, except 10, correlate moderately with Soc Sup as expected. ❖ All IT Correlations higher than with other scales (highest is .397). ❖ **Remove Item 10**.
School Rel	0.829	6	❖ Very good reliability. Cannot be improved by removing items. ❖ Item 18 has high mean and low variance ❖ Item 19 has high mean ❖ IT Correlations all above .45 (lowest is .527), and all higher than with other scales (highest is .473). Highest for Social Supports, though not as high as for previous variables, as expected. Also a bit higher for self-expectations and learning orientation, social activities and role models. ❖ **Accept Scale without Changes**.
Work Rel	0.920	6	❖ Excellent reliability. Cannot be improved by removing items. ❖ Small response due to most not working. Query relevance of the scale as a baseline measure – only 11% of participants are involved. ❖ Five of the six items correlate highly with IMI. ❖ IT Correlations all above .45 (lowest is .668), and all higher than with other scales (highest is .568). ❖ Scale performs well, but not relevant. ❖ **Remove Scale entirely**.
Community Rel	0.828	6	❖ Very good reliability. Can be improved (.834) be removing Item 29. ❖ Item 29 has high mean and low variance (also highest correlation with IMI, though not flagged). ❖ IT Cor all above .40 (lowest is .405 for Item 29, and all higher than with other scales (highest is .428, not for item 29). ❖ **Remove item 29**.
Role Model Rel	0.908	6	❖ Excellent reliability, cannot be improved. ❖ Items 33, 37 & 38 have high means. ❖ IT Cor all above .45 (lowest is .691), all higher than with other scales (highest is .451). ❖ **Accept Scale without Changes**.
Love Rel	0.579	6	❖ Very poor reliability, but can be radically improved (to .810) by removing Item 40. ❖ Nearly half participants left this out – query relevance. ❖ Items 43 and 44 have high means. ❖ IT Cor all above .45 (lowest is .475) except for Item 40 (-.329). The negative value of this correlation is very problematic and is the cause of the low reliability. ❖ Meaning and directionality of Item 40 is dubious. ❖ All IT Cor are higher than with other scales (highest is .268). ❖ **Remove item 40**.
Community Safety	0.752	4	❖ Good reliability, can be improved (.776) if item 47 is removed. ❖ IT Cor all above .40 (lowest is .405 for item 47, and all higher than with other scales (highest is .471, not for item 47). ❖ Although removing item 47 seems appropriate, this would result in a three-item scale, which is not desirable. ❖ **Accept Scale without Changes**.
Financial Security	0.718	4	❖ Good reliability, cannot be improved by removing any item. ❖ IT Cor all above .40 (lowest is .440 for item 52, and all higher than with other scales (highest is .274). ❖ **Accept Scale without Changes**.
Social Activities	0.716	8	❖ Good reliability, but can be improved by removing item 60, and perhaps item 55. ❖ IT Cor all above .40 (lowest is .400 for item 56), except for items 55 (.231) and 60 (.150). ❖ All IT Cor are higher than with other scales, except for Item 55 which correlates more highly with Spirituality than Social Activities (.481). ❖ Item 60 was added to an existing scale by the GBT team. Does not appear to be conceptually relevant to the construct. ❖ **Remove item 60**. Then perhaps also 55.
Learning	0.658	9	❖ Poor reliability, can be slightly improved by removing item 64

Scale	Alpha	Items	Analysis
Orientation			(.669). ❖ Items 61 and 64 have high means. ❖ IT Cor are mostly low – 3 flagged and 3 more lightly flagged. Only 2 exceed .45. Points to the lack of internal coherence among the items and raises questions about validity. ❖ Three items (61, 64 & 67) have higher correlations with other scales than own scale, mostly with self-expectations, but also social support, generosity, self-esteem, hopefulness, school relationships. Item 64 in particular correlated more highly with most other scales than with its own scale – also empathy, conflict resolution, team work, spirituality, delayed gratification, self-efficacy, locus of control, problem solving, social activities, role models, community relationships, work relationships. ❖ Overall performance of the scale is poor. May need to drop it. ❖ **Remove items 61 and 64**.
Self Expectations	0.746	7	❖ Good reliability, can be slightly improved (.760) be removing item 72. ❖ Item 72 has high mean, low variance. ❖ Item 74 has high mean. ❖ IT Cor are above .45 for 4 items, flagged for 1 (item 72 = .188) and light flag for 73 and 74. ❖ IT Cor are higher for own than other scales, except for item 72 – higher for local of control. Highest correlations with Learning Orientation, as expected. ❖ These two constructs clearly overlap (scale level correlation is .48) and may be measuring the same construct. Will be best to delete one of them. LO is a standardised scale, while SE is our own creation! SE is performing much better than LO. ❖ **Remove item 72**.
Bounce-backability	0.679	6	❖ Poor reliability, can be significantly improved (.749) be removing item 81. ❖ IT Cor all above .40 (lowest is .421), except for item 81 (.006!). Item 81 correlates more highly with self-efficacy, locus of control and resourcefulness. ❖ **Remove item 81**.
Problem Solving	0.659	7	❖ Poor reliability, can be significantly improved (.733) by removing item 89. ❖ Item 83 has high mean, low variance. ❖ Item 89 correlates highly with IMI. ❖ IT Cor all above .40, except items 83 (.283) and 89 (-.120!). ❖ Item 89 was written by GBT – rest come from a standardised scale – and does measures neither independent nor interdependent problem solving. Correlates highly with other resilience measures, especially resourcefulness. ❖ Cor with other variables higher for item 83 than with own construct – empathy. ❖ **Remove item 89**.
Locus of Control	0.592	6	❖ Very poor reliability, but can be improved (.649) by removing item 93. ❖ Three items have high mean and low variance. ❖ One item correlates highly with IMI. ❖ All but one IT Cor below .45, two flagged, but all higher than with other scales, except for item 93. ❖ Overall coherence of the scale is not looking good. May need to drop it. ❖ **Remove item 93**.
Self-Efficacy	0.785	9	❖ Good reliability, which cannot be improved by removing items. ❖ Item 97 has high mean and low variance. ❖ Items 101 & 104 have low variance. ❖ Items 99, 100 & 103 correlate highly with IMI. Maybe these items tap into a cavalier "I can handle anything" attitude? ❖ IT Cor above .45 except for items 98 (.376) and 102 (.379). ❖ IT Cor higher than with other scales, except for item 102 (.403 - Resourcefulness). ❖ Tricky, because most items have problems on one of the criteria,

Scale	Alpha	Items	Analysis
			but no clearly poorly performing items. May need to tinker and drop a few items in the end. ❖ **Remove item 102**.
Hopefulness	0.586	6	❖ Very poor reliability, but can be significantly imrpvoed (.661) by dropping item 107. ❖ Items 108 and 110 have high means. ❖ Item 108 correlates highly with IMI. ❖ Three of the six items have very low IT Cor, particularly item 107 (.040). IT Cor are higher than for other scales, except for items 107 and 109 (both with self-esteem). These two constructs are highly correlated at scale level (.543) raising questions about the conceptual distinction. May need to drop Hopefulness. ❖ **Remove item 107**.
Self-Esteem	0.794	10	❖ Good reliability, which can be improved (.803) by dropping item 122. ❖ Four items correlate highly with IMI (not item 122). ❖ Item 116 has low variance. ❖ IT Cor above .40, except for 122 (.250) and two other flagged items (117 & 121). ❖ Three items (113, 117 & 121) correlate with other scales more than own scale (self-efficacy and resourcefulness). ❖ This one also tricky. ❖ **Remove item 122**.
Resource-fulness	0.786	8	❖ Good reliability, which will not be improved by removing an item. ❖ Four of the 8 items have low variance ❖ Six items correlate highly with IMI. This construct, more than any other, appears to be influenced by IM. At scale level, has the highest correlation with IMI (.351 – next highest is .277 for self-efficacy, which is quite a big gap). ❖ IT Cor are all above .40, except for item 129 (.374). This is one of the two items that do not correlate with IMI. All IT Cor are larger than with other scales. ❖ This may require quite a bit of tinkering. ❖ **Remove item 129.**
Stress Tolerance	0.700	7	❖ Good reliability, which can be increased slightly by removing item 141. ❖ IT Cor all above .40, except for items 140 and 141, all higher than with other scales, except for item 141. ❖ **Remove item 141.**
Delayed Gratification	0.524	10	❖ Very poor reliability, but can be improved a bit by removing item 144. ❖ Only two IT Cor exceed .40 and none meets the .45 standard. Four items correlate more highly with other scales than own scale. ❖ The coherence of this scale is poor. May want to drop it. ❖ **Remove item 144.**
Spirituality	0.861	6	❖ Very good reliability, which cannot be improved by removing items. ❖ IT Cor all above .45 (lowest is .610), with no cor with other scales being higher (highest is .342). ❖ **Accept Scale without Changes**.
Team Work	0.814	5	❖ Very good reliability, which cannot be improved by removing items. ❖ Items 159 & 163 have high means and low variance. ❖ Items 161 & 163 correlate highly with IMI. ❖ IT Cor all above .45 (lowest is .522), with no cor with other scales being higher (highest is .476). ❖ **Accept Scale without Changes**.
Conflict Resolution	0.585	6	❖ Very poor reliability, which cannot be improved by removing items. ❖ Item 165 has high mean and low variance. ❖ Items 165, 168 & 169 correlate highly with IMI. ❖ Only one item meets IT Cor of .40, and three are below .30. Three items correlate more highly with other scales than own (Team Work and Empathy). ❖ Conceptual coherence of this scale is poor. Probably drop this

Scale	Alpha	Items	Analysis
			scale. But Items 164 and especially 165 were written by GBT and don't appear to fit the construct. ❖ **Remove item 165**.
Empathy	0.883	8	❖ Very good reliability, which cannot be improved by removing items. ❖ Item 176 has high mean. ❖ Four items have low variance. ❖ IT Cor all exceed .45 (lowest .581) and exceed correlations with other scales (highest .564). ❖ **Accept Scale without Changes**.
Generosity	0.718	10	❖ Good reliability, which can be markedly improved by removing item 183. ❖ Items 178 & 179 have high mean and low variance and correlate highly with IMI. ❖ Items 182 & 185 have low variance. ❖ Seven IT Cor exceed .40, but two are lightly flagged and one is a zero correlation (-.004!) – fits better with delayed gratification. ❖ Three items correlate more highly with other scales than own (work and community relations). ❖ **Remove item 183.**
Social Supports	0.883	12	❖ Standardised scale, so this is just for comparison with our scales. ❖ Very good reliability, which cannot be improved by removing items. ❖ Item 193 has low variance. ❖ All IT Cor exceed .45 (lowest is .509), but three items correlate more highly with other scales (all with Family Relationships). At scale level, the correlation is .576, which is very high, suggesting these two scales measure much the same construct.
CD RISC	0.828	10	❖ Standardised scale, so this is just for comparison with our scales. ❖ Very good reliability, which cannot be improved by removing items. ❖ Item 205 has high mean. ❖ All IT Cor exceed .40 (lowest is .427), all of which exceed cor with other scales (highest is .441). Highest scale level correlation is with self-efficacy.

Round 2 of Validation

SPSS 04. Run **Syntax 03** for Round 2 of the validation.
Copy and paste to Excel

Excel 02. Item analysis
- ❖ **Corrected Item-Total Correlations**
  - ➤ Should be high (standard: above .45)
  - ➤ Range from .121 to .798
  - ➤ Mean = .516 (up from .496)
  - ➤ 49 items (28% of them) are below .45, a good improvement from 75 items (35.9%).
  - ➤ Items under .40 flagged, and items in low 40s lightly flagged.

Scale	Alpha	Items	Analysis
Family Rel	**.818**	**5**	❖ Very good reliability. Cannot be improved by removing items. ❖ Few items ❖ Item 1 has a high mean ❖ Item 6 has a high mean, also low variance ❖ IT Correlations all above .45 (lowest is .569), and all higher than with other scales (highest is .500). Highest for Social Supports, as expected. ❖ Items 1 to 3 correlate strongly (above .45) with Social Supports. This is acceptable, as the two scales measure a very similar construct. ❖ **Accept Scale without Changes**.
Friends Rel	~~.749~~ .779	~~7~~ 6	❖ Removed Item 10. ❖ Good reliability – improved by 5%. Cannot be further improved by removing items. ❖ Item 7 has high mean. ❖ Items 11 & 12 have low variance. ❖ Three ITC are good, two are in the low 40, one under 40 (item 11). ❖ Removal of item 11 drops the alpha by only .1%, but removes an item with an unacceptably low ITC. ❖ **Remove Item 11.**
School Rel	**.829**	**6**	❖ Very good reliability. Cannot be improved by removing items. ❖ Item 18 has high mean and low variance ❖ Item 19 has high mean ❖ IT Correlations all above .45 (lowest is .527), and all higher than with other scales (highest is .473). Highest for Social Supports, though not as high as for previous variables, as expected. Also a bit higher for self-expectations and learning orientation, social activities and role models. ❖ **Accept Scale without Changes**.
Community Rel	~~.828~~ .834	~~6~~ 5	❖ Removed item 29. ❖ Very good reliability. Cannot be further improved by removing items. ❖ All ITC very good and far higher than other scales. ❖ Item 32 correlates very highly (above .45) with Generosity. This is a concern. However, the ITC is extremely high, making this probably fine. ❖ **Accept Scale.**
Role Model Rel	0.908	6	❖ Excellent reliability, cannot be improved. ❖ Items 33, 37 & 38 have high means. ❖ IT Cor all above .45 (lowest is .691), all higher than with other scales (highest is .451). ❖ Item 36 correlates strongly (above .45) with Social Supports. This is acceptable, as the two scales measure a very similar construct. In addition, the ITC is extremely high, making this probably fine. ❖ **Accept Scale without Changes**.
Love Rel	~~.579~~ .810	~~6~~ 5	❖ Removed item 40. ❖ Very good reliability – a 23% improvement! Cannot be further improved by removing items. ❖ Nearly half participants left this out – query relevance. ❖ Items 43 and 44 have high means.

Scale	Alpha	Items	Analysis
			❖ All ITC good and far higher than other scales. ❖ **Accept Scale.**
Community Safety	**0.752**	**4**	❖ Good reliability, can be improved (.776) if item 47 is removed. ❖ IT Cor all above .40 (lowest is .405 for item 47, and all higher than with other scales (highest is .277). ❖ Although removing item 47 seems appropriate, this would result in a three-item scale, which is not desirable. ❖ **Accept Scale without Changes**.
Financial Security	**0.718**	**4**	❖ Good reliability, cannot be improved by removing any item. ❖ IT Cor all above .40 (lowest is .440 for item 52, and all higher than with other scales (highest is .265). ❖ **Accept Scale without Changes**.
Social Activities	~~.716~~ .743	~~8~~ 7	❖ Removed item 60. ❖ Good reliability, improved by 3%, but can go up more by removing item 55. ❖ All but one ITCs okay (two in the low 40s) and higher than other scales. ❖ Item 55 correlates very highly (above .45) with Spirituality and has a very low ITC. ❖ **Remove Item 55.**
Learning Orientation	~~.658~~ .687	~~9~~ 7	❖ Removed items 61 and 64. ❖ Poor reliability, slightly improved. Can be pushed over .7 by removing item 68. ❖ Three ITCs are flagged, plus one lightly. ITCs higher than other scales, except for items 67 and 68. ❖ **Remove Items 67 & 68.**
Self-Expectations	~~.746~~ .759	~~7~~ 6	❖ Remove item 72. ❖ Good reliability. Can be further improved by removing item 74. ❖ Item 74 has high mean. ❖ Four ITCs are good, and all but item 74 are higher than other scales. ❖ Odd to remove item 74, as it is the only item specifically mentioning 'expectations for myself'! ❖ **Remove Item 74.**
Bounce-backability	~~.679~~ .749	~~6~~ 5	❖ Removed item 81. ❖ Good reliability. Cannot be further improved by removing items. ❖ All ITC fine, except for item 77 (just under .40) and higher than other scales. ❖ **Accept Scale.**
Problem Solving	~~.659~~ .733	~~7~~ 6	❖ Removed item 89. ❖ Good reliability, but can be further improved by removing item 83. ❖ Item 83 has high mean, low variance. ❖ All ITCs, except item 83, above .40 and higher than other scales. ❖ **Remove Item 83.**
Locus of Control	~~.592~~ .646	~~6~~ 5	❖ Removed item 93. ❖ Poor reliability, but 5% improved on before. Cannot be further improved by removing items. ❖ Three items have high mean and low variance. ❖ One item correlates highly with IMI. ❖ Three ITCs under .45, two of which under .40. Highest ITC is .477. ❖ Scale lacks internal coherence and separation from other scales. ❖ **Remove Scale entirely.**
Self-Efficacy	~~.785~~ .778	~~9~~ 8	❖ Removed item 102. ❖ Good reliability, which cannot be improved by removing items. ❖ Item 97 has high mean and low variance. ❖ Items 101 & 104 have low variance. ❖ Items 99, 100 & 103 correlate highly with IMI. Maybe these items tap into a cavalier "I can handle anything" attitude? ❖ All but one ITC are good and higher than other scales. ❖ Item 98 has ITC under .40. Its removal will drop the reliability very slightly but increase validity. ❖ Items 100 and 105 correlate strongly (above .45) with CD-RISC. This is acceptable, as the two scales measure a very similar

Scale	Alpha	Items	Analysis
			construct. ❖ **Remove item 98.**
Hopefulness	~~.586~~ .659	~~6~~ 5	❖ Removed item 107. ❖ Poor reliability, but improved by 7%. Can be improved to above .7 by removing item 109. ❖ Item 97 has high mean and low variance. ❖ Items 108 and 110 have high means. ❖ Item 108 correlates highly with IMI. ❖ Three ITCs are good and higher than other scales, but item 109 has very low ITC and that correlates more strongly with self-esteem. ❖ Item 112 correlates strongly (above .45) with self-esteem. This is a concern because the ITC for this item is not very convincing. ❖ **Remove item 109.**
Self-Esteem	~~.794~~ .804	~~10~~ 9	❖ Removed item 122. ❖ Very good reliability, which cannot be improved by removing items. ❖ Four items correlate highly with IMI. ❖ Item 116 has low variance. ❖ Four ITC are of concern (especially 117 and 121) and one is lower than for other scales (117). Item 113 has almost identical ITC and correlation with self-efficacy. ❖ Item 124 correlates very highly (above .45) with Resourcefulness. This is a concern. However, the ITC is okay, making this probably fine. ❖ **Remove item 117.**
Resource-fulness	~~.786~~ .778	~~8~~ 7	❖ Removed item 129. ❖ Good reliability, which cannot be improved by removing items. ❖ Four of the 8 items have low variance ❖ Six items correlate highly with IMI. This construct, more than any other, appears to be influenced by IM. At scale level, has the highest correlation with IMI (.350 – next highest is .272 for self-efficacy, which is quite a big gap). ❖ All ITC above .40 and higher than other scales. ❖ Item 126 correlates highly (above .45) with CD-RISC, which is a bit of a concern. But given that they measure similar constructs, and the ITC is very high, it's probably fine. ❖ Item 131 correlates very highly (above .45) with Self-Efficacy. This is a concern. However, the ITC is good, making this probably fine. ❖ **Accept Scale.**
Stress Tolerance	~~.700~~ .714	~~7~~ 6	❖ Removed item 141. ❖ Good reliability, which can be slightly improved by removing item 140. ❖ All ITC, other than item 140, are good and higher than other scales. ❖ **Remove item 140.**
Delayed Gratification	~~.524~~ .603	~~10~~ 9	❖ Removed item 144. ❖ Poor reliability, which cannot be significantly improved by removing items. ❖ All but one ITC are below .45 and most below .40 and few are lower than other scales. ❖ The low alpha is a real big problem and undermines the overall quality of the measure. ❖ **Remove Scale entirely**.
Spirituality	.861	6	❖ Very good reliability, which cannot be improved by removing items. ❖ IT Cor all above .45 (lowest is .610), with no cor with other scales being higher (highest is .303). ❖ **Accept Scale without Changes**.
Team Work	.814	5	❖ Very good reliability, which cannot be improved by removing items. ❖ Items 159 & 163 have high means and low variance. ❖ Items 161 & 163 correlate highly with IMI. ❖ IT Cor all above .45 (lowest is .522), with no cor with other scales

Scale	Alpha	Items	Analysis
			being higher (highest is .476). ❖ Items 159 and 163 correlate very highly (above .45) with Generosity and Empathy respectively. This is a concern, particularly given that the ITCs are not very convincing. It raises some questions about the coherence of this construct. ❖ **Accept Scale without Changes**.
Conflict Resolution	~~.585~~ **.568**	~~6~~ **5**	❖ Removed item 165. ❖ Very poor reliability, which cannot be improved by removing items. ❖ Items 168 & 169 correlate highly with IMI. ❖ ITC are all below .45, only 1 above .40, and two are lower than other scales. ❖ The low alpha is a real problem. Pity, because this is an important construct for the study. ❖ **Remove Scale entirely**.
Empathy	**0.883**	**8**	❖ Very good reliability, which cannot be improved by removing items. ❖ Item 176 has high mean. ❖ Four items have low variance. ❖ IT Cor all exceed .45 (lowest .581) and exceed correlations with other scales (highest .559). ❖ Items 173 and 175-177 correlate very highly (above .45) with Generosity. This is a concern, though for two of the items the ITC is very high, making this probably fine. But the overlap between Empathy and Generosity must be explored theoretically. ❖ **Accept Scale without Changes**.
Generosity	~~.718~~ **.775**	~~10~~ **9**	❖ Removed item 183. ❖ Good reliability, which cannot be improved by removing items. ❖ Items 178 & 179 have high mean and low variance and correlate highly with IMI. ❖ Items 182 & 185 have low variance. ❖ Five ITCs exceed .45, but one (item 178) is below .40. Two ITCs are lower than other scales (items 180 and 182). ❖ Items 180, 182 and 185 correlate very highly (above .45) with Empathy (for the second two) and Community Relations (the first item). This is a concern, though for all three items the ITC is very high, making this probably fine. But the overlap between Empathy and Generosity must be explored theoretically. ❖ **Remove item 178.**
Social Supports	**0.883**	**12**	❖ Standardised scale, so this is just for comparison with our scales. ❖ Very good reliability, which cannot be improved by removing items. ❖ Item 193 has low variance. ❖ All IT Cor exceed .45 (lowest is .509), but three items correlate more highly with other scales (all with Family Relationships). At scale level, the correlation is .576, which is very high, suggesting these two scales measure much the same construct.
CD RISC	**0.828**	**10**	❖ Standardised scale, so this is just for comparison with our scales. ❖ Very good reliability, which cannot be improved by removing items. ❖ Item 205 has high mean. ❖ All IT Cor exceed .40 (lowest is .427), all of which exceed cor with other scales (highest is .441). Highest scale level correlation is with self-efficacy.

SPSS 05. Run **Syntax 04** for Round 3 of the validation.
Copy and paste to Excel

Excel 03. Item analysis
- ❖ **Corrected Item-Total Correlations**
  - ➢ Should be high (standard: above .45)
  - ➢ Range from .339 to .798
  - ➢ Mean = .559 (up from .516, up from .496)
  - ➢ 25 items (17%) are below .45, a good improvement from 49 items (28% of them), improved from 75 items (35.9%).
  - ➢ The four items under .40 flagged, and the 21 items in low 40s lightly flagged.

Scale	Alpha	Items	Analysis
Family Rel	**.818**	**5**	❖ Very good reliability. Cannot be improved by removing items. ❖ Few items ❖ Item 1 has a high mean ❖ Item 6 has a high mean, also low variance ❖ IT Correlations all above .45 (lowest is .569), and all higher than with other scales (highest is .500). Highest for Social Supports, as expected. ❖ Items 1 to 3 correlate strongly (above .45) with Social Supports. This is acceptable, as the two scales measure a very similar construct. ❖ **Accept Scale without Changes**.
Friends Rel	~~.749~~ .779 ~~.777~~	~~7~~ 6 ~~5~~	❖ Removed item 11. ❖ Removed Item 10. ❖ Good reliability – dropped slightly after removal of item 11. Can be further improved by removing item 12. ❖ Item 7 has high mean. ❖ Items 11 & 12 have low variance. ❖ Three ITC are good, one is in the low 40s, one under 40 (item 12). Item 12's ITC has dropped from .409 to .354, as a result of deleting item 11 which had an ITC of .381. Thus, the removal of item 11 has resulted in a shorter but less robust scale. ❖ It we removed item 12, we'd have the highest alpha and ITC, but a narrower construct. There are really two aspects to the 6-item version, viz goodness of friends and supportiveness of friendship. Items 11 and 12 measure the former. Either we drop both, leading to a 4-item construct about supportiveness of friendships, or we reinstate item 11 so we capture both aspects. Ideally, though, a scale should be unidimensional, so removing item 12 is indicated. ❖ However, if we do that, item 13's ITC drops to under .40. So every removal of an item impacts on others, which is a slippery slide to single-item scales. If item 13 was then dropped, alpha would jump to .827, suggesting that items 7-9 form a coherent but very narrow 'supportive friendships' construct. The other three items (11-13) do intercorrelate, but their alpha is only .539. ❖ Overall, the best solution seems to be to reinstate item 11 and have a slightly broader construct about supportive and positive friendships. Factorial validity is fine either way. ❖ **Reinstate item 11, then accept scale.**
School Rel	**.829**	**6**	❖ Very good reliability. Cannot be improved by removing items. ❖ Item 18 has high mean and low variance ❖ Item 19 has high mean ❖ IT Correlations all above .45 (lowest is .527), and all higher than with other scales (highest is .473). Highest for Social Supports, though not as high as for previous variables, as expected. Also a bit higher for self-expectations and learning orientation, social activities and role models. ❖ **Accept Scale without Changes**.
Community Rel	~~.828~~ .834	~~6~~ 5	❖ Removed item 29. ❖ Very good reliability. Cannot be further improved by removing

Scale	Alpha	Items	Analysis
			items.
			❖ All ITC very good and far higher than other scales.
			❖ Item 32 correlates very highly (above .45) with Generosity. This is a concern. However, the ITC is extremely high, making this probably fine.
			❖ **Accept Scale.**
Role Model Rel	0.908	6	❖ Excellent reliability, cannot be improved.
			❖ Items 33, 37 & 38 have high means.
			❖ IT Cor all above .45 (lowest is .691), all higher than with other scales (highest is .451).
			❖ Item 36 correlates strongly (above .45) with Social Supports. This is acceptable, as the two scales measure a very similar construct. In addition, the ITC is extremely high, making this probably fine.
			❖ **Accept Scale without Changes**.
Love Rel	~~.579~~	~~6~~	❖ Removed item 40.
	.810	5	❖ Very good reliability – a 23% improvement! Cannot be further improved by removing items.
			❖ Nearly half participants left this out – query relevance.
			❖ Items 43 and 44 have high means.
			❖ All ITC good and far higher than other scales.
			❖ **Accept Scale.**
Community Safety	0.752	4	❖ Good reliability, can be improved (.776) if item 47 is removed.
			❖ IT Cor all above .40 (lowest is .405 for item 47, and all higher than with other scales (highest is .277).
			❖ Although removing item 47 seems appropriate, this would result in a three-item scale, which is not desirable.
			❖ **Accept Scale without Changes**.
Financial Security	0.718	4	❖ Good reliability, cannot be improved by removing any item.
			❖ IT Cor all above .40 (lowest is .440 for item 52, and all higher than with other scales (highest is .265).
			❖ **Accept Scale without Changes**.
Social Activities	~~.716~~	~~8~~	❖ Removed item 55.
	~~.743~~	~~7~~	❖ Removed item 60.
	.762	6	❖ Good reliability, improved by another 2%, and cannot be further improved.
			❖ All but one ITCs okay (item 56 is .393) and all higher than other scales. So factorial validity is good.
			❖ **Accept Scale.**
Learning Orientation	~~.658~~	~~9~~	❖ Removed items 67 & 68.
	~~.687~~	~~7~~	❖ Removed items 61 and 64.
	.719	5	❖ Good reliability, improved by 6% on original version. Cannot be further improved by removing items.
			❖ Two ITCs are lightly flagged, and all higher than with other scales. Good factorial validity.
			❖ **Accept Scale.**
Self-Expectations	~~.746~~	~~7~~	❖ Removed Item 74.
	~~.759~~	~~6~~	❖ Remove item 72.
	.766	5	❖ Good reliability, 2% improved on original version. Cannot be further improved by removing items.
			❖ One ITCs lightly flagged, and all higher than with other scales. Good factorial validity.
			❖ **Accept Scale.**
Bounce-backability	~~.679~~	~~6~~	❖ Removed item 81.
	.749	5	❖ Good reliability. Cannot be further improved by removing items.
			❖ All ITC fine, except for item 77 (just under .40) and higher than other scales.
			❖ **Accept Scale.**
Problem Solving	~~.659~~	~~7~~	❖ Removed Item 83.
	~~.733~~	~~6~~	❖ Removed item 89.
	.742	5	❖ Good reliability, 9% improved on original version. Cannot be further improved by removing items.
			❖ All ITCs above .40 and higher than other scales. Good factorial validity.
			❖ **Accept Scale.**

Scale	Alpha	Items	Analysis
Self-Efficacy	~~.785~~ ~~.778~~ .770	~~9~~ ~~8~~ 7	❖ Removed item 98. ❖ Removed item 102. ❖ Good reliability, which cannot be improved by removing items. It has dropped by 1.5% since the original, but to the benefit of validity. ❖ Item 97 has high mean and low variance. ❖ Items 101 & 104 have low variance. ❖ Items 99, 100 & 103 correlate highly with IMI. Maybe these items tap into a cavalier "I can handle anything" attitude? ❖ All ITC are good and higher than other scales. ❖ Items 100 and 105 correlate strongly (above .45) with CD-RISC. This is acceptable, as the two scales measure a very similar construct. ❖ **Accept Scale.**
Hopefulness	~~.586~~ ~~.659~~ .713	~~6~~ ~~5~~ 4	❖ Removed item 109. ❖ Removed item 107. ❖ Good reliability, improved by 13% from original. Cannot be further improved by removing items ❖ Item 97 has high mean and low variance. ❖ Items 108 and 110 have high means. ❖ Item 108 correlates highly with IMI. ❖ All ITCs above .40, one lightly flagged, all above other scales. ❖ Item 112 correlates strongly (above .45) with self-esteem. This is a concern because the ITC for this item is not very convincing. However, this item speaks directly to the future, which is central to this construct. ❖ **Accept Scale.**
Self-Esteem	~~.794~~ ~~.804~~ .802	~~10~~ ~~9~~ 8	❖ Removed item 117. ❖ Removed item 122. ❖ Very good reliability, which cannot be improved by removing items, though removing item 121 will not reduce reliability. ❖ Four items correlate highly with IMI. ❖ Item 116 has low variance. ❖ Three ITCs are of concern (particularly item 121 is .339) and one is lower than for other scales (item 113). Item 113 has almost identical ITC and correlation with self-efficacy. ❖ Item 124 correlates very highly (.509) with Resourcefulness. This is a concern, especially as the ITC is not very high (.591). ❖ The most coherent scale (alpha = .813 and lowest ITC .582) comes with four items (115, 119, 120, 123), but all of these are negatively worded, thus do not really measure self-esteem (rather the absence of a negative self-esteem). So, although the numbers look nice, the content validity is problematic. ❖ If item 121 is removed, item 116's ITC drops from .410 to .370, so either way, we will have one item with an ITC under .40. The notion of being "a person of worth" is important to self-esteem, thus recommend not dropping item 121. ❖ **Accept Scale.**
Resource-fulness	~~.786~~ .778	~~8~~ 7	❖ Removed item 129. ❖ Good reliability, which cannot be improved by removing items. ❖ Four of the 8 items have low variance ❖ Six items correlate highly with IMI. This construct, more than any other, appears to be influenced by IM. At scale level, has the highest correlation with IMI (.350 – next highest is .272 for self-efficacy, which is quite a big gap). ❖ All ITC above .40 and higher than other scales. ❖ Item 126 correlates highly (above .45) with CD-RISC, which is a bit of a concern. But given that they measure similar constructs, and the ITC is very high, it's probably fine. ❖ Item 131 correlates very highly (above .45) with Self-Efficacy. This is a concern. However, the ITC is good, making this probably fine. ❖ **Accept Scale.**
Stress Tolerance	~~.700~~ ~~.714~~	~~7~~ ~~6~~	❖ Removed item 140. ❖ Removed item 141.

Scale	Alpha	Items	Analysis
	.716	5	❖ Good reliability, which cannot be improved by removing items. ❖ All ITCs above .40, though one lightly flagged, and all higher than other scales. Good factorial validity. ❖ **Accept Scale.**
Spirituality	.861	6	❖ Very good reliability, which cannot be improved by removing items. ❖ IT Cor all above .45 (lowest is .610), with no cor with other scales being higher (highest is .303). ❖ **Accept Scale without Changes**.
Team Work	.814	5	❖ Very good reliability, which cannot be improved by removing items. ❖ Items 159 & 163 have high means and low variance. ❖ Items 161 & 163 correlate highly with IMI. ❖ IT Cor all above .45 (lowest is .522), with no cor with other scales being higher (highest is .476). ❖ Items 159 and 163 correlate very highly (above .45) with Generosity and Empathy respectively. This is a concern, particularly given that the ITCs are not very convincing. It raises some questions about the coherence of this construct. ❖ **Accept Scale without Changes**.
Empathy	0.883	8	❖ Very good reliability, which cannot be improved by removing items. ❖ Item 176 has high mean. ❖ Four items have low variance. ❖ IT Cor all exceed .45 (lowest .581) and exceed correlations with other scales (highest .559). ❖ Items 173 and 175-177 correlate very highly (above .45) with Generosity. This is a concern, though for two of the items the ITC is very high, making this probably fine. But the overlap between Empathy and Generosity must be explored theoretically. ❖ **Accept Scale without Changes**.
Generosity	~~.718~~ ~~.775~~ .762	~~10~~ ~~9~~ 8	❖ Removed item 178. ❖ Removed item 183. ❖ Good reliability, up 5% on original, which cannot be improved by removing items. ❖ Items 179 has high mean and low variance and correlate highly with IMI. ❖ Items 182 & 185 have low variance. ❖ Five of the 8 ITCs are lightly flagged. Three ITCs are lower than other scales. Three ITCs correlate very highly (above .45) with Empathy, Team Work or Community Relations. ❖ Although this scale has good reliability, it has poor factorial validity, and the problems just get worse the more I fiddle with it. Although the concept is good, particularly in relation to the Circle of Courage, the validity is too great a threat. ❖ **Remove Scale entirely**.
Social Supports	0.883	12	❖ Standardised scale, so this is just for comparison with our scales. ❖ Very good reliability, which cannot be improved by removing items. ❖ Item 193 has low variance. ❖ All IT Cor exceed .45 (lowest is .509), but three items correlate more highly with other scales (all with Family Relationships). At scale level, the correlation is .576, which is very high, suggesting these two scales measure much the same construct.
CD RISC	0.828	10	❖ Standardised scale, so this is just for comparison with our scales. ❖ Very good reliability, which cannot be improved by removing items. ❖ Item 205 has high mean. ❖ All IT Cor exceed .40 (lowest is .427), all of which exceed cor with other scales (highest is .441). Highest scale level correlation is with self-efficacy.

Round 4 of Validation: Final Validation Results

The measure of resilience for youth leaving care initially comprised 30 constructs. 26 of these were validated in a large national study at six sites with 575 participants. (Four constructs that were specific to GBT had to be omitted as they would be meaningless to participants outside of GBT.) These 26 constructs comprised 178 items.

Through the validation effort, based on Van Breda, Faul and Hudson's procedures for ecometric validation, five constructs were abandoned due to poor measurement properties. A third of the items were discarded – most from the five constructs but some also from the remaining 21 constructs – resulting in a final scale of 117 items, plus the 19 items from the four GBT constructs. Overall, then, the GBT scale was reduced from 206 to 136 items.

Two comparison scales were included in the validation study:
1. **Connor-Davidson Resilience Scale** (Connor & Davidson, 2003; Windle et al., 2011).
2. **Multidimensional Scale of Perceived Social Support** (Bruwer et al., 2008).

Reliability

The table below summarises the reliability coefficient (Cronbach Alpha) and Standard Error of Measurement (SEM) for the 21 scales, plus the two comparison scales.

	Items	Cronbach	SEM	Mean	Cutting Range	
Family_Rel	5	.816	8.1	74.5	66.4 —	82.7
Friends_Rel	6	.783	7.5	71.4	63.9 —	79.0
School_Rel	6	.829	7.4	77.1	69.7 —	84.5
Community_Rel	5	.834	9.1	58.1	49.2 —	67.3
Role_Model_Rel	6	.908	6.6	78.3	71.7 —	84.8
Love_Rel	5	.809	8.7	75.7	67.0 —	84.4
Community_Safety	4	.766	11.8	46.6	34.8 —	58.4
Financial_Security	4	.711	12.2	59.9	47.7 —	72.2
Social_Activities	6	.775	10.9	50.3	39.4 —	61.3
Learning_Orientation	5	.723	11.1	40.5	29.4 —	51.6
Self_Expectations	5	.787	8.7	67.2	58.5 —	75.9
Bouncebackability	5	.751	10.1	55.4	45.3 —	65.5
Problem_Solving	5	.747	10.3	45.8	35.5 —	56.2
Self_Efficacy	7	.775	6.6	72.6	66.0 —	79.2
Hopefulness	4	.741	8.8	76.9	68.1 —	85.7
Self_Esteem	8	.807	8.0	62.7	54.8 —	70.7
Resourcefulness	7	.791	6.4	69.4	63.0 —	75.8
Stress_Tolerance	5	.735	9.6	35.7	26.1 —	45.3
Spirituality	6	.870	7.6	68.2	60.6 —	75.8
Team_Work	5	.833	6.5	78.3	71.8 —	84.9
Empathy	8	.888	5.1	75.9	70.8 —	81.1
Social_Supports	12	.884	5.3	72.6	67.2 —	77.7
CD_RISC	10	.828	6.8	69.8	63.0 —	76.7

All of the scales had an alpha coefficient of at least .70, which is the widely accepted minimum standard for reliability for research. Nine of the 21 scales exceeded a reliability of .80, which can be regarded as very good, though a reliability of .90 is required for scales used in individual, high stakes settings. **All the scales are sufficiently reliable for group research**. However, the scales with reliabilities under .80 should not be used to inform decisions about individuals.

The SEM scores range from 5.1 to 12.2, with a mean of 8.6. SEM is a measure of the degree of error within a scale score, and provides an estimate of the potential gap between a true score and an observed score. In practice, a cutting range can be constructed, by adding and subtracting 1SEM from the scale mean and expecting that about two thirds of people should score within that range. Consequently, low SEMs are desirable. The preferred standard is for SEMs below 5. None of the scales meet this criterion – nor do those of the comparison scales.

Nevertheless, the SEM has been used to calculate cutting ranges. Participants who score above the range can be considered to be particularly resilient, while those below the range particularly lacking in resilience. Those within the range can be regarded as having 'average' resilience. **The Standard Error of Measurement is higher than desired for all the scales.**

Validity

Multiple group confirmatory analysis, a form of confirmatory factor analysis, developed by Hudson, was conducted to establish factorial (construct) validity. The detailed factor matrix is appended. The table below summarises the results.

	Items	Construct Validity	Mean Correlations with Other Scales	Items with Correlations with Other Scales > ITC	Items with ITC < .40
Family_Rel	5	.616	.151	0	0
Friends_Rel	6	.532	.114	0	1
School_Rel	6	.604	.138	0	0
Community_Rel	5	.637	.136	0	0
Role_Model_Rel	6	.751	.167	0	0
Love_Rel	5	.603	.090	0	0
Community_Safety	4	.570	.073	0	0
Financial_Security	4	.500	.093	0	0
Social_Activities	6	.525	.130	0	0
Learning_Orientation	5	.483	.103	0	0
Self_Expectations	5	.576	.148	0	0
Bouncebackability	5	.517	.104	0	1
Problem_Solving	5	.513	.088	0	0
Self_Efficacy	7	.503	.171	0	0
Hopefulness	4	.538	.169	0	0
Self_Esteem	8	.521	.179	1	1
Resourcefulness	7	.531	.182	0	0
Stress_Tolerance	5	.498	-.003	0	0
Spirituality	6	.671	.101	0	0
Team_Work	5	.633	.169	0	0
Empathy	8	.668	.108	0	0
Social_Supports	12	.586			
CD_RISC	10	.515			

Factorial validity requires higher correlations between items and their own scale totals (corrected for the item-self correlation) than for the correlations between items and other scales. In other words, each item should measure what it is supposed to measure more strongly than any other construct. The values in the construct validity column (which is the mean corrected item-total correlation or ITC) are in all cases much higher than the values in the mean correlations with other scales column (this is the correlation of each item with the other 22 scales (our 20 scales plus the two comparison scales).

Only one of the 117 items had a higher correlation with another scale than its own scale, viz an item in the scale for Self-Esteem. This item (item 113: "On the whole, I am satisfied with myself.") had an ITC of .456 and correlated with Self-Efficacy at .459. The difference is very small, but the similarity means the item appears to measure both constructs. The item was retained, rather than discarded, because it speaks to self-esteem (thus has content validity) and was necessary to retain the overall coherence of the self-esteem scale.

In addition to the requirement for higher ITCs than correlations with other constructs, factorial validity also requires that each ITC be .45 or higher. This standard can, however, be dropped to as low as .20 for broader constructs. Because the current scale started with small numbers of items, the required standard was reduced slightly from .45 to .40. The right hand column in the above table shows that only three of the 117 items had an ITC of less than .40. These

ranged from .348 to .394. They do reduce the validity of these three scales slightly, but their retention resulted in a better scale than their omission.

The mean ITC constitutes a coefficient of construct validity, and should be .60 or higher. This standard is, however, most applicable to scales intended for clinical or high stakes use, which is the not the case here. The standard is thus reduced to .50. This decision is supported by the fact that neither of the comparison scales exceeded .60. Based on the reduced standard, 19 of the 21 scales demonstrate adequate construct validity, eight of which exceed the .60 standard. Two scales (Learning Orientation and Stress Tolerance) obtained construct validity coefficients in the .48-.49 range. These were retained, despite not meeting this criterion, because they met all of the other construct (factorial) validity criteria.

It can be seen that the construct validity coefficients (which are mean corrected item-total correlations), the lowest of which was .483, all significantly exceed the mean correlation between the items and the other constructs, the highest of which was .182.

Drawing all of these criteria together, it can be concluded that **all the scales demonstrate reasonable construct validity**.

Construct validity was also assessed at scale level. Three sets of hypotheses were formulated about the theoretically expected relationship between the 21 scales and seven other variables: the Impression Management Index, the Multidimensional Scale of Perceived Social Support, the Connor-Davidson Resilience Scale, gender, age, grade and whether or not the participant has a boy/girlfriend. For each pair of variables, a prediction was made regarding the relationship between them:
  I.   Expect a negligible relationship in the order of .00 to .15. This would provide evidence of discriminant validity.
  II.   Expect a weak relationship in the order of .15 to .35. This would provide beginning evidence of convergent validity.
  III. Expect a moderate relationship in the order of .35 to .60. This would provide further evidence of convergent validity.

The table below presents the expected correlations.

Boyfriend	IMI	SocSup	CD-RISC	Gender	Age	Grade	Boyfriend
Family_Rel	I	III	I	I	I	I	I
Friends_Rel	I	III	I	I	I	I	I
School_Rel	I	II	I	I	II	II	I
Community_Rel	I	II	I	I	I	I	I
Role_Model_Rel	I	III	I	I	I	I	I
Love_Rel	I	II	I	I	I	I	III
Community_Safety	I	I	I	I	I	I	I
Financial_Security	I	I	I	I	I	I	I
Social_Activities	I	I	I	I	II	II	I
Learning_Orientation	I	I	I	I	II	II	I
Self_Expectations	II	I	II	I	II	II	I
Bouncebackability	II	I	III	I	I	I	I
Problem_Solving	II	I	II	I	I	I	I
Self_Efficacy	II	I	III	I	I	I	I
Hopefulness	II	I	II	I	I	I	I
Self_Esteem	II	I	II	II	I	I	I
Resourcefulness	II	I	III	II	I	I	I
Stress_Tolerance	I	I	I	I	I	I	I
Spirituality	I	I	I	I	I	I	I
Team_Work	I	II	I	II	I	I	I
Empathy	I	II	I	II	I	I	I

The individual results are presented in the appendix to this report and summarised below:

Category	Mean r	Range r	Expected Range	% out of range
I	.113	.002 - .338	.00 - .15	28%
II	.205	.001 - .466	.15 - .35	24%
III	.502	.417 - .592	.35 - .60	0%

Overall, the data support the expected relationships, though there is quite a bit of overlap particularly between categories I and II. Nevertheless, **the overall trend points towards acceptable construct validity**.

Conclusion

The revised baseline resilience scale used by GBT for its longitudinal study, comprising 21 validated sub scales, has demonstrated acceptable reliability and validity for use in a research context. Internal consistencies are all above .70 and the scales demonstrate good factorial validity and reasonable construct (convergent and discriminant) validity.

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22 June 2014

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**Validation of a Measure of Resilience
of Youths Exiting Residential Care**

SITE INFORMATION LETTER

Dear _____

Girls and Boys Town South Africa (GBT) is a child and youth care organisation that provides, among other things, residential services to vulnerable youth. Last year, GBT, in partnership with the University of Johannesburg, published a research report on the journey that young people take as they transition out of care and into independent living. This report is freely available on the GBT website.[1]

We are now embarking on phase two of this study, which involves tracking young people from the time they disengage from residential care into young adulthood. We hope through this to gain greater insight into the pathways that young people follow as they strive towards independence and success in life, and that this insight will help GBT, and the child and youth care sector more broadly, to provide more effective independent living skills and aftercare programmes to young people in care.

As part of that project we are collecting data at the time of disengagement concerning the youths' resilience. We intend to use this data to forecast patterns of adaptation among those who leave care. These data are collected using a tool that we have designed, drawing on existing theory and research, called the 'GBT Questionnaire for Care-Leavers'. To ensure the rigour of the study, it is important to validate the questionnaire. A validation tests the measurement properties of a questionnaire to ensure that it is consistent (reliable) and that it is measuring what it sets out to measure (validity). Such a validation requires a large pool of questionnaires to be completed by people who are similar in age and status to those for whom the questionnaire is designed.

We therefore would like to invite you to be part of the process of collecting some of the data for this validation study. We are approaching various organisations (mostly schools and child and youth care centres) across South Africa to collect smaller amounts of data (approximately 50 questionnaires each) that will then be pooled into a larger data set (about 500 questionnaires) for validation. This approach to collecting data will ensure a data set that is diverse in age, region, socio-economic status, culture and psychosocial functioning.

There will be no direct benefit to your organisation for participating in the study. However, your participation as an organisation, and that of the children in your organisation, will help to provide better care to vulnerable youth – those who need to be removed from their care of their families and placed in residential care. We will, if you would like, make the final findings of the validation study available to you, as well as the final questionnaire, which you would be free to use in your own research.[2]

This project has been reviewed and approved by the Faculty of Humanities Academic Ethics Committee of the University of Johannesburg (letter attached). The full research proposal can be downloaded should you want more detail on the study design.[3]

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[1] http://www.girlsandboystown.org.za/journey.html
[2] Provided acknowledgement is given to GBT and the University of Johannesburg.
[3] https://dl.dropboxusercontent.com/u/56743467/Research_Proposal_Validation_GBT_scale.doc

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Should you be willing to assist with this project, we propose the following way forward:

1. Please appoint an individual in your organisation to coordinate the project (hereafter called the Coordinator). This could be the person that we approached with this request.
2. Please sign the attached Organisational Consent Form and return that to us to confirm your willingness to participate.
3. To ensure the well-being of participants, you are requested to ensure that you would be able to provide counselling to participants in the unlikely event that some experience distress as a result of their participation in this study. This would be at your own expense, through a service provided by someone on your staff or another referral mechanism.
4. The Coordinator will receive from us (at no expense to your organisation) a pack of information letters and informed consent forms, as well as questionnaires and answer sheets.
5. The Coordinator will select a sample of young people from your organisation (in the age range of 14-21 years) who are demographically diverse (e.g. both boys and girls, and all race groups) and invite them to participate, using the supplied information letters and consent forms.
6. If both the young person and their parent or guardian agree to participate and sign the Informed Consent Form, then the Coordinator will arrange a suitable time and venue for the participants to complete the questionnaire. This should be done at your organisation, under the Coordinator's supervision and at a time that is convenient and not disruptive to your organisation and the participants. In our experience, most young people complete the questionnaire within an hour.
7. The Consent Forms (which contain the names of the participants) and the completed questionnaires (which are anonymous) should be kept separate so that there is no risk to the privacy of the participants.
8. These should be returned to me at my expense.

Because of the time that this entails for the Coordinator, I will pay the Coordinator R15 per questionnaire completed as an honorarium for their effort.

Please do not hesitate to contact me or the GBT field worker who is liaising with you on my behalf should you have any queries or concerns about this project.

(PROF A.D. VAN BREDA)
DEPARTMENT OF SOCIAL WORK:
UNIVERSITY OF JOHANNESBURG

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ORGANISATIONAL CONSENT FORM

Organisation Name	
Head of Organisation	
Contact Telephone	
Contact Email	
Organisation Address	

I hereby consent to allow my organisation (as indicated in the table above above) to participate in the Girls & Boys Town (GBT) / University of Johannesburg (UJ) research project called "Validation of a Measure of Resilience of Youths Exiting Residential Care", on the understanding that:

1. UJ will cover the costs of printing and posting.
2. I have appointed a Coordinator from among my staff to coordinate the project (see table below)
3. UJ and GBT will have no direct contact with parents or children in my organisation. All contact with this project will be mediated by a Coordinator appointed from my staff.
4. The privacy of participants will be ensured by having the Coordinator collect the data, ensuring that the name or other identifying details of the participants is provided nowhere on the 'GBT Questionnaire for Care-Leavers' and keeping the Informed Consent Forms separate from the completed Questionnaires.
5. I have appointed a competent member of staff (see table below) to provide or arrange counselling to participants should they experience distress as a result of their participation in this study.
6. I have the right to request a copy of the research findings and to utilise the resulting questionnaire, provided I acknowledge GBT and UJ.

Name of Coordinator	
Coordinator Telephone	
Coordinator Email	

Name of Counsellor	
Counsellor Telephone	
Counsellor Email	

_____   _____
Signature   Date

DATA COLLECTION MANUAL

Thank you for agreeing to coordinate the data collection for the 'Validation of a measure of resilience of youths exiting residential care' at your organisation. Please ensure that you have read the Site Information Letter, which contains brief background information to the study. This manual serves to set out the tasks that you need to undertake in your role as Site Coordinator.

You are responsible for all aspects of recruiting participants and collecting data at your site. We are looking for 50 questionnaires from your site. You will be provided with the necessary documentation and we will cover the costs of postage as required.

Your process is as follows:
1. We need 50 teenagers to participate in the study.
    a. They should range in age from 14 to 21 (depending on what ages are available to you).
    b. They should include both girls and boys, in roughly equal numbers if possible.
    c. They should be as diverse as possible in terms of race, culture, language, socioeconomic status, educational ability, social functioning, and so on. The more diverse, the better.
2. Once you have identified the prospective participants, please call them together and invite them to participate. It helps to meet with them face to face, if you can, and explain to them the project in a way that will make sense to them, drawing on the documentation with which you have been provided.
3. If they are interested in participating, please provide them with the Participant Information Sheet and the Informed Consent Form.
    a. If they live with their parents, ask them to take the form home, to discuss it with their parents and if they and their parents are willing to participate, to sign the Consent Form and return it to you within a day or two.
    b. If they are living in residential care, it is legally acceptable for their guardian to provide the consent, since they are legally in the guardian's care. However, if your organisation prefers to obtain the consent of their parents, please follow that course.
4. Once the young person and their parent or guardian agree to participate and sign the Informed Consent Form, please arrange a suitable time and venue for the participants to complete the questionnaire. This should be done at your organisation, under your supervision and at a time that is convenient and not disruptive to your organisation and the participants. In our experience, most young people complete the questionnaire within an hour.
    a. Arrange for a quiet venue where they can work undisturbed.
    b. Ask them to bring a pencil and an eraser, or provide these to them.
    c. Hand out the GBT Questionnaire for Care Leavers, and read through the cover page together.
    d. Check if they have any questions.
    e. Then hand out the Answer Sheet.
    f. It may help, particularly with younger teens, to complete the Demographic Information Sheet together, and to check that they are completing them correctly.
    g. Then, when they seem ready, ask them to complete the rest of the questionnaire on their own.

    h. Be present and available to answer questions or assist them, but avoid hovering or reading over their shoulder.

5. When they are finished, collect and scan the answer sheet to ensure that they have not accidentally left out a large section or page. Thank them sincerely for their time. And allow them to return to wherever else they should be.

6. Keep the Answer Sheets, Questionnaires and Consent Forms separate from each other – three separate piles of documents.

7. When you have completed the 50 questionnaires, please contact me or the GBT person that is liaising with you, to arrange for the questionnaires to be returned to us. If they need to be posted, please retain proof of payment so that I can reimburse you.

Please feel free to contact me directly (my details are at the bottom of the page) or the GBT person that is liaising with you if you have any queries or uncertainties. Don't worry in silence!

Upon receipt of the data, I will request the university to make payment to you at a rate of R15 per completed questionnaire, plus expenses (provided I get receipts and only for costs that we have agreed). To this end, I will provide you with a few pages of forms to complete to appoint you as a temporary staff member of the University of Johannesburg, so that payment can be made. For this you will need to provide me with copies of your ID, a bank statement and your tax reference number.

Upon completion of the study, we will provide you with a summary of the results should you wish to have these.

Many thanks for your willingness to assist with collecting data. This is an important part of a larger study that we believe will benefit young people in residential care. You are making an important contribution to that aim.

Warm wishes

(PROF A.D. VAN BREDA)
DEPARTMENT OF SOCIAL WORK:
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PARTICIPANT INFORMATION SHEET

Dear _____

I am writing to tell you about a research project that we would very much like you to be involved in. The project involves you (the young person) completing an anonymous questionnaire. This will take about one hour of your time.

The research project is about how people journey from childhood to adulthood. We all know that this is not easy. It is hard to leave behind the things of childhood – being looked after, cared for, supported, protected. It is hard to move into adulthood – having to fend for yourself, make your own decisions, earn a living, keep a roof over your head. The transition from childhood to adulthood is a challenge for everyone. But it is especially challenging for young people who have been living in residential care (that is, in a children's home) for a few years. Our research project is about these children.

This research is being conducted by the University of Johannesburg (UJ) and Girls and Boys Town South Africa (GBT). GBT is a child and youth care organisation that provides, among other things, residential services (i.e. children's homes) to vulnerable youth. GBT is conducting important research into the lives of young people starting when they leave residential care and continuing into adulthood. They hope through this to provide better services to young people as they leave residential care and set out to live independently.

The GBT research involves collecting information when young people leave residential care. The questionnaire that they use for that is a new questionnaire and needs to be tested to make sure that it is working properly – it is called the 'GBT Questionnaire for Care-Leavers'. This is where you come in. To test the questionnaire they need hundreds of young people to complete it. We as an organisation have decided to support GBT and UJ in this project. And, we are asking whether the young person to whom this letter was given could please participate in the study. We need the young person's permission and her/his parent's or guardian's permission before you can participate.

Here is the important information:

- We are not offering anything to you for participating, except that you will know that you will be helping other young people, like yourself. We hope that this will give you a feeling of doing something good for another person, and that will be reward enough.
- Completing the questionnaire will take about an hour. The questionnaire is anonymous – that means that your name will not appear anywhere on the questionnaire. There are no right or wrong answers – we just want your honest views. The questions are all about you and your life – how you see yourself, your relationships and so on.
- Your participation is entirely voluntary. No-one may force you to participate and you may decide to withdraw from the study even if you have agreed to participate.
- Sometimes completing a questionnaire can remind you of things that make you feel unhappy. If that happens, we will arrange for a counsellor to see you.
- This project has been reviewed and approved by the Faculty of Humanities Academic Ethics Committee of the University of Johannesburg.

If you are willing to participate, please sign the informed consent form on the next page and return that to the Project Coordinator. You may also contact the Coordinator for more information if you have any questions.

Yours sincerely

Project Coordinator:

Contact Details:

INFORMED CONSENT FORM

Name of Parent (or Guardian)	
Name of Participating Child	

We, the above mentioned individuals, volunteer to participate in the research project conducted by Girls and Boys Town and the University of Johannesburg, on the validation of the 'GBT Questionnaire for Care-Leavers'.

1. We have read and understood the information provided in the *Participant Information Sheet*.
2. We understand that GBT and UJ are doing this study to better understand and support children who are residential care as they leave care and work to become independent.
3. We understand that there are no financial or material rewards for participating in the research.
4. We understand that participation in the research is voluntary and that we can withdraw or choose not to participate at any time without any negative consequences.
5. We understand that what is required of me it complete an anonymous questionnaire that does not contain my name or any other specific information that could reveal who I am.
6. I (the participating child) will do my best to answer the questionnaire honestly and openly, and understand that no one will judge me because of what I answer.
7. We understand that counselling will be available afterwards if requested to the Coordinator of the research project.

Signature of Parent (or Guardian)	
Signature of Participating Child/Youth	
Today's date	

GIRLS AND BOYS TOWN
QUESTIONNIARE FOR CARE-LEAVERS

INTRODUCTION

This questionnaire is aimed at understanding your feelings, experiences, knowledge and skills upon leaving GBT. Your answers are <u>very</u> important to us. Please answer the questions as honestly as you can. All the information that you provide is confidential and private. You do not have to put your name on the answer sheet, so we won't know those answers are yours.

INSTRUCTIONS

- You have been given two booklets:
  (1) The first booklet has all the questions you need to answer.
  (2) The second booklet is the answer sheet. This is where you must fill in your answers.
- Read each question carefully
- In your answer sheet, colour in the circle that best describes how you feel about that question.
- Use a pencil to colour in the answer on the answer sheet.
- You can use an eraser to change an answer if you need to.
- Make sure you answer **all** the questions that apply to you.
- Focus on how you feel **today** – these are all 'now' questions.
- You will notice that some questions sound similar to each other – just answer each question as best you can.
- Colour only **one** circle per question like the example below shows:

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
SD ⭘	D ⭘	U ⭘	A ⬤	SA ⭘

Please start by completing the <u>Demographic Information Sheet</u>.
Then continue with the questionnaire on the following page.

RELATIONSHIPS

Family relationships

Remember to focus on how things are in your family today.

1. My family really tries to help me.
2. I get the emotional help and support I need from my family.
3. I can talk about my problems with my family.
4. I sometimes hurt other people's feelings.
5. My family is willing to help me make decisions.
6. I feel cared for/loved by my family.

Relationships with friends

7. I have friends about my own age who really care about me.
8. I have friends about my own age who talk with me about my problems.
9. I have friends about my own age who help me when I'm having a hard time.
10. My friends get into a lot of trouble.
11. My friends try to do what is right.
12. My friends do well in school or work.
13. My friends are sensitive to my needs.

School or work relationships

Only answer the following questions if you currently attend school.

14. At my school, there is a teacher who really cares about me.
15. At my school, there is a teacher who notices when I'm not there.
16. At my school, there is a teacher who listens to me when I have something to say.
17. At my school, there is a teacher who tells me when I do a good job.
18. At my school, there is a teacher who always wants me to do my best.
19. At my school, there is a teacher who believes I will be a success.

Only answer the following questions if you are currently employed and work somewhere.

20. At my work, there is someone senior to me who really cares about me.
21. At my work, there is someone senior to me who notices when I'm not there.
22. At my work, there is someone senior to me who listens to me when I have something to say.
23. At my work, there is someone senior to me who tells me when I do a good job.
24. At my work, there is someone senior to me who always wants me to do my best.
25. At my work, there is someone senior to me who believes I will be a success.

Relationships with people in the community

These questions exclude your family – so people other than your family.
If you living in a children's home, these questions are about your relationship with the people who live in the community where you live when you are not at the children's home.

26. I feel part of the community where I live.
27. I care about my community.
28. I am always honest with people.
29. I respect the people who live in my community.
30. People in my community look out for me.
31. I am close to people in my community.
32. I try to help others in my community.

Relationships with role models

The following questions ask you about an adult in your life, other than your parents, teachers or employers.

33. There is an adult in my life (other than my parents, teachers or employers) who really cares about me.
34. There is an adult in my life who notices when I am upset about something.
35. There is an adult in my life who I trust.
36. There is an adult in my life who tells me when I do a good job.
37. There is an adult in my life who believes that I will be a success.
38. There is an adult in my life who always wants me to do my best.

Love relationships

Only answer the following questions if you are currently in a romantic relationship with someone (a partner).

39. When I have free time I spend it with my partner.
40. I often keep personal information to myself, rather than sharing it with my partner.
41. I often show my partner affection.
42. I often share very personal information with my partner.
43. I understand my partner's feelings
44. I feel close to my partner.

MY SITUATION

Feelings about my community

45. There is a lot of crime in the community where I live.
46. It is safe to walk around in my community at night.
47. There is a big drug problem in my community.
48. I feel safe and secure in my community.

Financials
49.   My family worries a lot about money. 50.   There is often not enough money for food. 51.   My family has enough money to live comfortably. 52.   We often argue about money in my family.

Activities I'm involved in
53.   I participate in group sports regularly. 54.   I am a regular member of a club. 55.   I attend church (or other religious group) regularly. 56.   I participate regularly in a dance or music group. 57.   I enjoy doing activities with others. 58.   I participate regularly in a community organisation serving others. 59.   I have a hobby that I do regularly with other people. 60.   I prefer to be by myself.

PERSONAL

Feelings about learning
Only answer the following questions if you currently attend school. 61.   Getting good marks in school is the most satisfying thing for me right now. 62.   When I write a test I think about how badly I am doing. 63.   I often feel so lazy or bored when I study that I quit before I finish what I planned to do. 64.   It is important for me to learn my school work. 65.   When I write tests I think of the consequences of failing. 66.   I have an uneasy, upset feeling when I write a test or exam. 67.   I ask the teacher to clarify concepts I do not understand well. 68.   I have a regular place set aside for studying. 69.   During class time, I often miss important points because I am thinking of other things.

Expectations of myself
70.   I always do my best. 71.   I make the most of every opportunity. 72.   I want to improve things in my life. 73.   I don't always put in my best effort. 74.   I have high expectations for myself. 75.   I strive to excel in all my tasks. 76.   I work hard to receive outstanding results.

Ability to 'bounce back'

77. I tend to bounce back quickly after hard times.
78. I have a hard time making it through stressful events.
79. It does not take me long to recover from a stressful event.
80. It is hard for me to snap back when something bad happens.
81. I usually come through difficult times with little trouble.
82. I tend to take a long time to get over set-backs in my life.

Solving problems and making decisions

83. I value other people's help and advice when making important decisions.
84. In general, I do not like to ask other people to help me to solve problems.
85. I like to get advice from my friends and family when deciding how to solve my personal problems.
86. I would rather struggle through a personal problem by myself than discuss it with a friend.
87. I prefer to make decisions on my own, rather than with other people.
88. I do not like to depend on other people to help me to solve my problems.
89. I feel confident I will find a solution when I'm faced with a personal problem.

Attitude towards being in control

90. I am responsible for my thoughts.
91. It is my choice how I feel.
92. It's my job to make me feel better, not anyone else's.
93. I have no control over my life.
94. Sometimes I get very angry.
95. In general, I am in control of my life.
96. I am responsible for my life.

Belief in my ability

97. I can always manage to solve difficult problems if I try hard enough.
98. If someone opposes or is against me, I can find a way to get what I want.
99. It is easy for me to stick to my plans and accomplish my goals.
100. I am confident that I could deal efficiently with unexpected events.
101. I can solve most problems if I invest the necessary effort.
102. I can remain calm when facing difficulties because I can rely on my coping abilities.
103. When I am confronted with a problem, I can usually find several solutions.
104. If I am in trouble, I can usually think of a solution.
105. I can usually handle whatever comes my way.

Hopefulness for the future

106. In uncertain times, I usually expect the best.
107. I seldom count on good things happening to me.
108. I'm always hopeful about my future.
109. I hardly ever expect things to go my way.
110. I am excited about what my future holds.
111. Sometimes I have bad thoughts.
112. My future feels bright.

Feelings about myself

113. On the whole, I am satisfied with myself.
114. Sometimes I do not tell the truth.
115. At times, I think I am no good at all.
116. I feel that I have a number of good qualities.
117. I am able to do things as well as most other people.
118. Sometimes I am not completely honest when I fill in a questionnaire.
119. I feel I do not have much to be proud of.
120. I certainly feel useless at times.
121. I feel that I'm a person of worth, at least on an equal plane with others.
122. I wish I could have more respect for myself.
123. All in all, I am inclined to feel that I am a failure.
124. I take a positive attitude toward myself.

Using what I have to get things done

125. I am positive when things go wrong.
126. I cope with difficult situations.
127. I am always punctual.
128. I usually manage one way or another.
129. I perform with limited resources.
130. I look for positive aspects of new situations.
131. I am resourceful in new situations.
132. I am efficient in difficult situations.
133. I work through long, difficult tasks.

Dealing with stress

134. Feeling distressed or upset is unbearable to me.
135. I can't handle feeling distressed or upset.
136. There's nothing worse than feeling distressed or upset.
137. I'll do anything to avoid feeling distressed or upset.
138. I'll do anything to stop feeling distressed or upset.
139. I sometimes feel pushed to hit someone.
140. When I feel distressed or upset, I must do something about it immediately.
141. I often feel upset.

Delaying rewards

142. I would have a hard time sticking with a special, healthy diet.
143. If my favourite food were in front of me, I would have a difficult time waiting to eat it.
144. I have given up physical pleasure or comfort to reach my goals.
145. When faced with a physically demanding chore, I always try to put off doing it.
146. I try to consider how my actions will affect other people in the long-term.
147. I do not consider how my behaviour affects other people.
148. I try to spend my money wisely.
149. I cannot be trusted with money.
150. I cannot motivate myself to accomplish long-term goals.
151. I have always felt like my hard work would pay off in the end.

Spiritual life

152. It is important for me to spend time in private spiritual thought and meditation.
153. I try hard to live my life according to my religious beliefs.
154. The prayers or spiritual thoughts that I say when I am alone are as important to me as those said by me during services or spiritual gatherings.
155. I enjoy reading about my spirituality and/or my religion.
156. I was always a happy child.
157. Spirituality helps to keep my life balanced and steady.
158. My whole approach to life is based on my spirituality.

Team work

159. I am generous and helpful to others.
160. I am an effective team member.
161. I co-operate well with people.
162. I work well with people.
163. I consider the feelings of other people when I work with them.

Solving conflicts

164. I resolve conflicts without anyone getting hurt.
165. I accept people who are different from me.
166. When I get in an argument with someone, we work it out quickly.
167. If I walked away from a fight, I'd be a coward ('chicken').
168. Other people make me so mad sometimes, that I push or hit them.
169. I get mad (angry) easily.

Understanding others

170. I feel bad when someone gets their feelings hurt.
171. I try to understand what other people feel and think.
172. I am sensitive to what, how and why people feel and think the way they do.
173. I care about others and show interest and concern for them.
174. I try to understand what others are feeling.
175. The needs of others are important to me.
176. I care about others.
177. Being concerned for others makes me feel good about myself.

Generosity

178. I often help the members of my family with things.
179. I often help my friends with things.
180. There are people in the community that I help.
181. I will usually help a person I don't know needing help.
182. Helping/caring for people makes me feel good.
183. Helping/caring for people adds to my stress.
184. I am known by family and friends as someone who makes time to pay attention to others' problems.
185. When friends or family members experience something upsetting or discouraging, I make a special point of being kind to them.
186. When it comes to my personal relationships with others, I am a very generous person.
187. I am usually willing to risk my own feelings being hurt in the process if I stand a chance of helping someone else in need.

Social Supports (MSPSS)

188. There is a special person who is around when I am in need.
189. There is a special person with whom I can share my joys and sorrows.
190. My family really tries to help me.
191. I get the emotional help and support I need from my family.
192. I have a special person who is a real source of comfort to me.
193. My friends really try to help me.
194. I can count on my friends when things go wrong.
195. I can talk about my problems with my family.
196. I have friends with whom I can share my joys and sorrows.
197. There is a special person in my life who cares about my feelings.
198. My family is willing to help me make decisions.
199. I can talk about my problems with my friends.

Resilience (CD-RISC 10)[1]

For these last ten questions, please mark the response that best indicates how much you agree with the statements as they apply to you over the last month. If a particular situation has not occurred recently, answer according to how you think you would have felt. The answer options are as follows:

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time
NT O	RT O	ST O	OT O	T O

200.   I am able to adapt when changes occur.
201.   I can deal with whatever comes my way.
202.   I try to see the humorous side of things when I am faced with problems.
203.   Having to cope with stress can make me stronger.
204.   I tend to bounce back after illness, injury, or other hardships.
205.   I believe I can achieve my goals, even if there are obstacles.
206.   Under pressure, I stay focused and think clearly.
207.   I am not easily discouraged by failure.
208.   I think of myself as a strong person when dealing with life's challenges and difficulties.
209.   I am able to handle unpleasant or painful feelings like sadness, fear, and anger.

THANK YOU FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE

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[1] CD-RISC 10 © 2001, 2003, 2007, 2009, 2011 by Kathryn M. Connor, M.D., and Jonathan R.T. Davidson.

	GIRLS AND BOYS TOWN QUESTIONNIARE FOR CARE-LEAVERS **ANSWER SHEET**	

DEMOGRAPHIC INFORMATION SHEET

1.	Are you a male (boy) or a female (girl)?	○ 1. Male ○ 2. Female
2.	How old are you (in years)?	
3.	What is your home language?	
4.	In which province do you live?	○ 1. Eastern Cape ○ 2. Free State ○ 3. Gauteng ○ 4. KwaZulu-Natal ○ 5. Limpopo ○ 6. Mpumalanga ○ 7. North West ○ 8. Northern Cape ○ 9. Western Cape
5.	What grade are you currently in?	
6.	Do you have a girlfriend/boyfriend at the moment?	○ 1. Yes ○ 2. No
7.	What race/population group do you belong to?	○ 1. African/Black ○ 2. Asian/Indian ○ 3. Coloured ○ 4. White
8.	Are you living in a children's home?	○ 1. Yes ○ 2. No

RELATIONSHIPS

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Family relationships					
1	SD ○	D ○	U ○	A ○	SA ○
2	SD ○	D ○	U ○	A ○	SA ○
3	SD ○	D ○	U ○	A ○	SA ○
4	SD ○	D ○	U ○	A ○	SA ○
5	SD ○	D ○	U ○	A ○	SA ○
6	SD ○	D ○	U ○	A ○	SA ○
Relationships with friends					
7	SD ○	D ○	U ○	A ○	SA ○
8	SD ○	D ○	U ○	A ○	SA ○
9	SD ○	D ○	U ○	A ○	SA ○
10	SD ○	D ○	U ○	A ○	SA ○
11	SD ○	D ○	U ○	A ○	SA ○
12	SD ○	D ○	U ○	A ○	SA ○
13	SD ○	D ○	U ○	A ○	SA ○
School or work relationships					

Only answer the following questions if you currently attend school.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
14	SD ○	D ○	U ○	A ○	SA ○
15	SD ○	D ○	U ○	A ○	SA ○
16	SD ○	D ○	U ○	A ○	SA ○
17	SD ○	D ○	U ○	A ○	SA ○
18	SD ○	D ○	U ○	A ○	SA ○
19	SD ○	D ○	U ○	A ○	SA ○

Only answer the following questions if you are currently employed and work somewhere.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
20	SD ○	D ○	U ○	A ○	SA ○
21	SD ○	D ○	U ○	A ○	SA ○
22	SD ○	D ○	U ○	A ○	SA ○
23	SD ○	D ○	U ○	A ○	SA ○
24	SD ○	D ○	U ○	A ○	SA ○
25	SD ○	D ○	U ○	A ○	SA ○
Relationships with people in the community					
26	SD ○	D ○	U ○	A ○	SA ○
27	SD ○	D ○	U ○	A ○	SA ○
28	SD ○	D ○	U ○	A ○	SA ○
29	SD ○	D ○	U ○	A ○	SA ○
30	SD ○	D ○	U ○	A ○	SA ○
31	SD ○	D ○	U ○	A ○	SA ○
32	SD ○	D ○	U ○	A ○	SA ○

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Relationships with role models					
33	SD ○	D ○	U ○	A ○	SA ○
34	SD ○	D ○	U ○	A ○	SA ○
35	SD ○	D ○	U ○	A ○	SA ○
36	SD ○	D ○	U ○	A ○	SA ○
37	SD ○	D ○	U ○	A ○	SA ○
38	SD ○	D ○	U ○	A ○	SA ○
Love relationships					

Only answer the following questions if you are currently in a romantic relationship with someone (a partner).

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
39	SD ○	D ○	U ○	A ○	SA ○
40	SD ○	D ○	U ○	A ○	SA ○
41	SD ○	D ○	U ○	A ○	SA ○
42	SD ○	D ○	U ○	A ○	SA ○
43	SD ○	D ○	U ○	A ○	SA ○
44	SD ○	D ○	U ○	A ○	SA ○

MY SITUATION

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Feelings about my community					
45	SD ○	D ○	U ○	A ○	SA ○
46	SD ○	D ○	U ○	A ○	SA ○
47	SD ○	D ○	U ○	A ○	SA ○
48	SD ○	D ○	U ○	A ○	SA ○
Financials					
49	SD ○	D ○	U ○	A ○	SA ○
50	SD ○	D ○	U ○	A ○	SA ○
51	SD ○	D ○	U ○	A ○	SA ○
52	SD ○	D ○	U ○	A ○	SA ○
Activities I'm involved in					
53	SD ○	D ○	U ○	A ○	SA ○
54	SD ○	D ○	U ○	A ○	SA ○
55	SD ○	D ○	U ○	A ○	SA ○
56	SD ○	D ○	U ○	A ○	SA ○
57	SD ○	D ○	U ○	A ○	SA ○
58	SD ○	D ○	U ○	A ○	SA ○
59	SD ○	D ○	U ○	A ○	SA ○
60	SD ○	D ○	U ○	A ○	SA ○

PERSONAL

Feelings about learning

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

Answer the following questions if you attend school:

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
61	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
62	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
63	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
64	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
65	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
66	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
67	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
68	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
69	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘

Expectations of myself

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
70	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
71	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
72	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
73	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
74	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
75	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
76	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘

Ability to 'bounce back'

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
77	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
78	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
79	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
80	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
81	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
82	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘

Solving problems and making decisions

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
83	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
84	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
85	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
86	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
87	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
88	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
89	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘

Attitude towards being in control

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
90	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
91	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
92	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
93	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
94	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
95	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
96	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘

Belief in my ability

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
97	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
98	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
99	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
100	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
101	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
102	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
103	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
104	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
105	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘

Hopefulness for the future

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
106	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
107	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
108	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
109	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
110	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
111	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
112	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘

Feelings about myself

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
113	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
114	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
115	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
116	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
117	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
118	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
119	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
120	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
121	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
122	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
123	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
124	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘

Using what I have to get things done

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
125	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
126	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
127	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
128	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
129	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
130	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
131	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
132	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘
133	SD ⭘	D ⭘	U ⭘	A ⭘	SA ⭘

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Dealing with stress					
134	SD O	D O	U O	A O	SA O
135	SD O	D O	U O	A O	SA O
136	SD O	D O	U O	A O	SA O
137	SD O	D O	U O	A O	SA O
138	SD O	D O	U O	A O	SA O
139	SD O	D O	U O	A O	SA O
140	SD O	D O	U O	A O	SA O
141	SD O	D O	U O	A O	SA O
Delaying rewards					
142	SD O	D O	U O	A O	SA O
143	SD O	D O	U O	A O	SA O
144	SD O	D O	U O	A O	SA O
145	SD O	D O	U O	A O	SA O
146	SD O	D O	U O	A O	SA O
147	SD O	D O	U O	A O	SA O
148	SD O	D O	U O	A O	SA O
149	SD O	D O	U O	A O	SA O
150	SD O	D O	U O	A O	SA O
151	SD O	D O	U O	A O	SA O
Spiritual life					
152	SD O	D O	U O	A O	SA O
153	SD O	D O	U O	A O	SA O
154	SD O	D O	U O	A O	SA O
155	SD O	D O	U O	A O	SA O
156	SD O	D O	U O	A O	SA O
157	SD O	D O	U O	A O	SA O
158	SD O	D O	U O	A O	SA O
Team work					
159	SD O	D O	U O	A O	SA O
160	SD O	D O	U O	A O	SA O
161	SD O	D O	U O	A O	SA O
162	SD O	D O	U O	A O	SA O
163	SD O	D O	U O	A O	SA O
Solving conflicts					
164	SD O	D O	U O	A O	SA O
165	SD O	D O	U O	A O	SA O
166	SD O	D O	U O	A O	SA O
167	SD O	D O	U O	A O	SA O
168	SD O	D O	U O	A O	SA O
169	SD O	D O	U O	A O	SA O

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Understanding others					
170	SD O	D O	U O	A O	SA O
171	SD O	D O	U O	A O	SA O
172	SD O	D O	U O	A O	SA O
173	SD O	D O	U O	A O	SA O
174	SD O	D O	U O	A O	SA O
175	SD O	D O	U O	A O	SA O
176	SD O	D O	U O	A O	SA O
177	SD O	D O	U O	A O	SA O
Generosity					
178	SD O	D O	U O	A O	SA O
179	SD O	D O	U O	A O	SA O
180	SD O	D O	U O	A O	SA O
181	SD O	D O	U O	A O	SA O
182	SD O	D O	U O	A O	SA O
183	SD O	D O	U O	A O	SA O
184	SD O	D O	U O	A O	SA O
185	SD O	D O	U O	A O	SA O
186	SD O	D O	U O	A O	SA O
187	SD O	D O	U O	A O	SA O
Social Supports					
188	SD O	D O	U O	A O	SA O
189	SD O	D O	U O	A O	SA O
190	SD O	D O	U O	A O	SA O
191	SD O	D O	U O	A O	SA O
192	SD O	D O	U O	A O	SA O
193	SD O	D O	U O	A O	SA O
194	SD O	D O	U O	A O	SA O
195	SD O	D O	U O	A O	SA O
196	SD O	D O	U O	A O	SA O
197	SD O	D O	U O	A O	SA O
198	SD O	D O	U O	A O	SA O
199	SD O	D O	U O	A O	SA O

CD-RISC

	Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time
200	NT O	RT O	ST O	OT O	T O
201	NT O	RT O	ST O	OT O	T O
202	NT O	RT O	ST O	OT O	T O
203	NT O	RT O	ST O	OT O	T O
204	NT O	RT O	ST O	OT O	T O
205	NT O	RT O	ST O	OT O	T O
206	NT O	RT O	ST O	OT O	T O
207	NT O	RT O	ST O	OT O	T O
208	NT O	RT O	ST O	OT O	T O
209	NT O	RT O	ST O	OT O	T O

The Faculty of Humanities
Academic Ethics Committee
University of Johannesburg
26th May 2013

Professor A Van Breda
Department of Social Work
Faculty of Humanities
University of Johannesburg

<u>**Ethical Clearance**</u>

Title of research: *The Validation of a Measure of Resilience of Youths Exiting Residential Care.*

In partnership with Girls and Boys Town South Africa.

Dear Professor Van Breda

It is the judgement of the "Faculty of Humanities Academic Ethics Committee" that the research proposal, and the relevant documents submitted to us in support of a request for Ethical Clearance, has clearly indicated that the standard practice of ethical professionalism will be upheld in the research.

From a research ethics point of view, the Faculty of Humanities Academic Ethics Committee therefore endorses the proposed research.

Yours sincerely

Professor Zelda G Knight
Chair: Faculty Ethics Committee
University of Johannesburg

Item	Construct	Stem	Omission	Mean	Variance	Cor IMI	Alpha if	IT Cor
1	Family_Rel	My family really tries to help me.	0.2	4.29	0.72	0.121	0.789	0.592
2	Family_Rel	I get the emotional help and support I need from my family.	0.5	3.90	1.05	0.065	0.761	0.676
3	Family_Rel	I can talk about my problems with my family.	0.0	3.32	1.47	0.092	0.797	0.587
5	Family_Rel	My family is willing to help me make decisions.	0.7	3.98	1.02	0.090	0.794	0.569
6	Family_Rel	I feel cared for/loved by my family.	0.2	4.43	0.70	0.058	0.770	0.669
7	Friends_Rel	I have friends about my own age who really care about me.	0.2	4.17	0.88	0.022	0.711	0.663
8	Friends_Rel	I have friends about my own age who talk with me about my problems.	0.4	3.96	1.17	-0.011	0.721	0.619
9	Friends_Rel	I have friends about my own age who help me when I'm having a hard time.	0.9	3.96	1.01	-0.003	0.709	0.665
11	Friends_Rel	My friends try to do what is right.	0.7	3.85	0.68	0.115	0.778	0.381
12	Friends_Rel	My friends do well in school or work.	1.4	3.89	0.62	0.087	0.772	0.409
13	Friends_Rel	My friends are sensitive to my needs.	1.2	3.33	0.87	0.112	0.771	0.428
14	School_Rel	At my school, there is a teacher who really cares about me.	1.4	3.85	1.24	0.007	0.791	0.655
15	School_Rel	At my school, there is a teacher who notices when I'm not there.	1.6	4.02	0.94	0.090	0.811	0.554
16	School_Rel	At my school, there is a teacher who listens to me when I have something to say.	1.9	3.93	0.98	0.054	0.801	0.603
17	School_Rel	At my school, there is a teacher who tells me when I do a good job.	1.8	4.10	0.93	0.085	0.817	0.527
18	School_Rel	At my school, there is a teacher who always wants me to do my best.	1.4	4.44	0.61	0.097	0.800	0.628
19	School_Rel	At my school, there is a teacher who believes I will be a success.	1.6	4.17	0.89	0.048	0.790	0.660
26	Community_Rel	I feel part of the community where I live.	2.1	3.31	1.63	0.031	0.793	0.664
27	Community_Rel	I care about my community.	2.1	3.64	1.02	0.047	0.804	0.628
30	Community_Rel	People in my community look out for me.	2.6	3.14	1.33	0.086	0.806	0.613
31	Community_Rel	I am close to people in my community.	2.8	3.01	1.47	0.066	0.777	0.712
32	Community_Rel	I try to help others in my community.	2.6	3.52	1.15	0.085	0.819	0.564
33	Role_Model_Rel	There is an adult in my life (other than my parents, teachers or employers) who really car	1.1	4.20	1.11	0.027	0.900	0.691
34	Role_Model_Rel	There is an adult in my life who notices when I am upset about something.	1.2	3.91	1.26	0.075	0.893	0.740
35	Role_Model_Rel	There is an adult in my life who I trust.	1.4	3.97	1.39	0.084	0.901	0.694
36	Role_Model_Rel	There is an adult in my life who tells me when I do a good job.	1.2	4.04	1.07	0.080	0.886	0.788
37	Role_Model_Rel	There is an adult in my life who believes that I will be a success.	1.2	4.27	0.90	0.078	0.885	0.798
38	Role_Model_Rel	There is an adult in my life who always wants me to do my best.	1.4	4.38	0.86	0.045	0.886	0.796
39	Love_Rel	When I have free time I spend it with my partner.	42.9	3.84	1.36	0.029	0.757	0.648
41	Love_Rel	I often show my partner affection.	43.2	3.70	1.25	0.056	0.794	0.530
42	Love_Rel	I often share very personal information with my partner.	43.4	3.66	1.58	0.075	0.769	0.621
43	Love_Rel	I understand my partner's feelings	43.4	4.26	0.85	0.077	0.788	0.550
44	Love_Rel	I feel close to my partner.	44.3	4.28	0.86	0.048	0.756	0.673
45	Community_Safety	There is a lot of crime in the community where I live.	1.1	2.80	1.70	0.100	0.638	0.644
46	Community_Safety	It is safe to walk around in my community at night.	1.2	2.79	1.66	0.080	0.682	0.568
47	Community_Safety	There is a big drug problem in my community.	1.6	2.75	1.89	0.035	0.776	0.405
48	Community_Safety	I feel safe and secure in my community.	1.6	3.16	1.33	0.098	0.672	0.596
49	Financial_Security	My family worries a lot about money.	1.2	2.67	1.59	0.116	0.623	0.559
50	Financial_Security	There is often not enough money for food.	1.1	3.63	1.67	0.083	0.612	0.576
51	Financial_Security	My family has enough money to live comfortably.	0.5	3.56	1.32	0.093	0.684	0.457
52	Financial_Security	We often argue about money in my family.	0.5	3.50	1.87	0.090	0.699	0.440
53	Social_Activities	I participate in group sports regularly.	0.7	2.90	2.22	0.011	0.705	0.581
54	Social_Activities	I am a regular member of a club.	1.2	2.46	2.11	-0.033	0.705	0.580
56	Social_Activities	I participate regularly in a dance or music group.	0.7	2.52	2.05	-0.046	0.758	0.393
57	Social_Activities	I enjoy doing activities with others.	0.7	3.99	1.10	0.006	0.743	0.446
58	Social_Activities	I participate regularly in a community organisation serving others.	1.2	2.58	1.49	0.011	0.732	0.486
59	Social_Activities	I have a hobby that I do regularly with other people.	0.5	3.49	1.78	0.025	0.713	0.554

Item	Construct	Stem	Omission	Mean	Variance	Cor IMI	Alpha if	IT Cor
62	Learning_Orientation	When I write a test I think about how badly I am doing.	0.5	2.91	1.66	0.143	0.647	0.537
63	Learning_Orientation	I often feel so lazy or bored when I study that I quit before I finish what I planned to do.	1.2	2.59	1.66	0.156	0.662	0.502
65	Learning_Orientation	When I write tests I think of the consequences of failing.	0.5	2.15	1.42	0.079	0.690	0.431
66	Learning_Orientation	I have an uneasy, upset feeling when I write a test or exam.	0.9	2.81	1.40	0.081	0.672	0.479
69	Learning_Orientation	During class time, I often miss important points because I am thinking of other things.	0.7	2.79	1.60	0.158	0.687	0.440
70	Self_Expectations	I always do my best.	0.4	3.86	1.05	0.174	0.702	0.600
71	Self_Expectations	I make the most of every opportunity.	0.4	3.76	1.10	0.118	0.716	0.560
73	Self_Expectations	I don't always put in my best effort.	0.4	2.68	1.62	0.169	0.773	0.432
75	Self_Expectations	I strive to excel in all my tasks.	0.2	4.09	0.84	0.139	0.732	0.517
76	Self_Expectations	I work hard to receive outstanding results.	0.4	3.89	0.96	0.057	0.698	0.619
77	Bouncebackability	I tend to bounce back quickly after hard times.	0.5	3.77	1.16	0.141	0.743	0.398
78	Bouncebackability	I have a hard time making it through stressful events.	0.7	2.76	1.33	0.106	0.706	0.509
79	Bouncebackability	It does not take me long to recover from a stressful event.	0.7	3.45	1.31	0.149	0.700	0.527
80	Bouncebackability	It is hard for me to snap back when something bad happens.	1.2	2.98	1.47	0.079	0.686	0.563
82	Bouncebackability	I tend to take a long time to get over set-backs in my life.	1.6	3.01	1.39	0.075	0.683	0.571
84	Problem_Solving	In general, I do not like to ask other people to help me to solve problems.	1.8	2.66	1.48	-0.012	0.698	0.499
85	Problem_Solving	I like to get advice from my friends and family when deciding how to solve my personal p	1.4	3.53	1.33	0.058	0.729	0.412
86	Problem_Solving	I would rather struggle through a personal problem by myself than discuss it with a frien	1.4	3.01	1.65	0.005	0.671	0.568
87	Problem_Solving	I prefer to make decisions on my own, rather than with other people.	1.8	2.64	1.36	-0.045	0.663	0.592
88	Problem_Solving	I do not like to depend on other people to help me to solve my problems.	1.2	2.22	1.09	-0.134	0.714	0.457
97	Self_Efficacy	I can always manage to solve difficult problems if I try hard enough.	0.4	4.27	0.54	0.158	0.750	0.449
99	Self_Efficacy	It is easy for me to stick to my plans and accomplish my goals.	0.2	3.60	1.10	0.200	0.744	0.489
100	Self_Efficacy	I am confident that I could deal efficiently with unexpected events.	0.7	3.75	0.79	0.209	0.730	0.546
101	Self_Efficacy	I can solve most problems if I invest the necessary effort.	0.7	4.12	0.63	0.110	0.749	0.453
103	Self_Efficacy	When I am confronted with a problem, I can usually find several solutions.	0.4	3.71	0.82	0.202	0.741	0.491
104	Self_Efficacy	If I am in trouble, I can usually think of a solution.	1.1	3.98	0.63	0.169	0.739	0.505
105	Self_Efficacy	I can usually handle whatever comes my way.	0.4	3.67	0.96	0.160	0.735	0.522
106	Hopefulness	In uncertain times, I usually expect the best.	0.5	3.73	1.00	0.118	0.712	0.401
108	Hopefulness	I'm always hopeful about my future.	0.7	4.25	0.77	0.193	0.635	0.531
110	Hopefulness	I am excited about what my future holds.	0.7	4.16	0.84	0.159	0.650	0.501
112	Hopefulness	My future feels bright.	0.9	4.00	1.06	0.110	0.599	0.579
113	Self_Esteem	On the whole, I am satisfied with myself.	0.0	3.85	1.23	0.188	0.793	0.424
115	Self_Esteem	At times, I think I am no good at all.	0.0	2.53	1.48	0.179	0.780	0.511
116	Self_Esteem	I feel that I have a number of good qualities.	0.7	4.10	0.65	0.179	0.794	0.410
119	Self_Esteem	I feel I do not have much to be proud of.	0.5	3.17	1.63	0.141	0.761	0.623
120	Self_Esteem	I certainly feel useless at times.	1.1	2.79	1.64	0.197	0.753	0.666
121	Self_Esteem	I feel that I'm a person of worth, at least on an equal plane with others.	0.7	3.81	0.84	0.134	0.802	0.339
123	Self_Esteem	All in all, I am inclined to feel that I am a failure.	1.4	3.58	1.51	0.056	0.775	0.542
124	Self_Esteem	I take a positive attitude toward myself.	0.2	4.01	0.90	0.197	0.770	0.591
125	Resourcefulness	I am positive when things go wrong.	0.2	3.58	1.15	0.232	0.766	0.458
126	Resourcefulness	I cope with difficult situations.	0.2	3.71	0.84	0.202	0.745	0.529
128	Resourcefulness	I usually manage one way or another.	0.4	4.01	0.48	0.236	0.766	0.414
130	Resourcefulness	I look for positive aspects of new situations.	0.7	3.96	0.51	0.287	0.743	0.555
131	Resourcefulness	I am resourceful in new situations.	1.1	3.77	0.61	0.259	0.727	0.628
132	Resourcefulness	I am efficient in difficult situations.	0.4	3.65	0.72	0.267	0.740	0.555
133	Resourcefulness	I work through long, difficult tasks.	0.0	3.75	0.83	0.158	0.765	0.432

Item	Construct	Stem	Omission	Mean	Variance	Cor IMI	Alpha if	IT Cor
134	Stress_Tolerance	Feeling distressed or upset is unbearable to me.	0.2	2.64	1.28	0.086	0.674	0.463
135	Stress_Tolerance	I can't handle feeling distressed or upset.	0.2	2.64	1.34	0.095	0.670	0.473
136	Stress_Tolerance	There's nothing worse than feeling distressed or upset.	0.2	2.39	1.17	0.005	0.644	0.534
137	Stress_Tolerance	I'll do anything to avoid feeling distressed or upset.	0.4	2.19	0.96	0.024	0.672	0.468
138	Stress_Tolerance	I'll do anything to stop feeling distressed or upset.	0.7	2.24	1.08	0.016	0.682	0.439
152	Spirituality	It is important for me to spend time in private spiritual thought and meditation.	0.5	3.67	1.34	0.087	0.847	0.610
153	Spirituality	I try hard to live my life according to my religious beliefs.	0.9	3.68	1.20	0.077	0.842	0.635
154	Spirituality	The prayers or spiritual thoughts that I say when I am alone are as important to me as th	0.7	4.01	1.10	0.127	0.842	0.634
155	Spirituality	I enjoy reading about my spirituality and/or my religion.	1.4	3.66	1.25	0.056	0.837	0.660
157	Spirituality	Spirituality helps to keep my life balanced and steady.	0.9	3.82	0.98	0.134	0.827	0.728
158	Spirituality	My whole approach to life is based on my spirituality.	0.7	3.40	1.28	0.147	0.836	0.668
159	Team_Work	I am generous and helpful to others.	0.9	4.18	0.67	0.152	0.787	0.572
160	Team_Work	I am an effective team member.	0.7	4.03	0.80	0.138	0.796	0.546
161	Team_Work	I co-operate well with people.	1.1	4.07	0.77	0.181	0.754	0.681
162	Team_Work	I work well with people.	0.9	4.06	0.83	0.170	0.747	0.699
163	Team_Work	I consider the feelings of other people when I work with them.	0.7	4.17	0.65	0.175	0.801	0.522
170	Empathy	I feel bad when someone gets their feelings hurt.	0.4	4.14	0.80	0.096	0.877	0.581
171	Empathy	I try to understand what other people feel and think.	0.0	4.12	0.53	0.159	0.869	0.652
172	Empathy	I am sensitive to what, how and why people feel and think the way they do.	0.4	3.94	0.79	0.104	0.873	0.616
173	Empathy	I care about others and show interest and concern for them.	0.5	4.08	0.59	0.156	0.862	0.715
174	Empathy	I try to understand what others are feeling.	1.1	4.06	0.56	0.106	0.867	0.672
175	Empathy	The needs of others are important to me.	0.4	3.77	0.76	0.109	0.870	0.635
176	Empathy	I care about others.	0.0	4.15	0.52	0.168	0.862	0.733
177	Empathy	Being concerned for others makes me feel good about myself.	0.0	4.03	0.81	0.104	0.870	0.643

Item	Family_Rel	Friends_Re	School_Re	Item	Communit	Role_Mod	Love_Rel	Communit	Financial_S	Social_Acti	Learning_	Self_Expec	Bounceba	Problem_S	Self_Effica
1		0.202	0.126	1	0.141	0.221	0.062	0.100	0.175	0.067	0.092	0.114	0.115	0.121	0.117
2		0.207	0.152	2	0.230	0.261	0.131	0.115	0.271	0.096	0.147	0.178	0.098	0.175	0.146
3		0.168	0.132	3	0.163	0.256	0.167	0.135	0.223	0.108	0.147	0.159	0.131	0.166	0.178
5		0.170	0.124	5	0.089	0.194	0.090	0.119	0.211	0.020	0.065	0.096	0.135	0.138	0.154
6		0.185	0.165	6	0.114	0.220	0.037	0.113	0.287	0.056	0.146	0.169	0.151	0.157	0.135
7	0.147		0.144	7	0.055	0.172	0.042	0.082	0.139	0.077	0.057	0.056	0.091	0.159	0.128
8	0.138		0.156	8	0.068	0.224	0.097	0.058	0.083	0.112	0.000	0.010	0.042	0.205	0.125
9	0.207		0.216	9	0.146	0.273	0.105	0.102	0.157	0.156	0.046	0.100	0.069	0.213	0.150
11	0.147		0.096	11	0.006	0.141	0.076	0.074	-0.004	0.033	0.102	0.080	0.139	0.151	0.145
12	0.128		0.188	12	0.072	0.173	-0.034	0.022	0.033	0.127	0.062	0.125	0.018	0.094	0.143
13	0.222		0.243	13	0.179	0.315	0.157	0.033	0.095	0.140	0.056	0.129	0.050	0.069	0.142
14	0.112	0.197		14	0.242	0.230	0.107	-0.042	-0.010	0.255	0.099	0.228	-0.089	0.077	0.137
15	0.058	0.192		15	0.198	0.236	0.160	-0.004	0.001	0.222	0.037	0.157	0.007	0.069	0.184
16	0.161	0.132		16	0.146	0.207	0.101	-0.002	-0.003	0.200	0.088	0.199	-0.053	0.126	0.114
17	0.141	0.241		17	0.098	0.262	0.072	0.012	0.003	0.183	0.148	0.210	0.066	0.100	0.182
18	0.155	0.198		18	0.141	0.173	0.045	0.020	0.010	0.153	0.088	0.267	0.006	0.089	0.185
19	0.169	0.159		19	0.229	0.222	0.094	0.004	0.002	0.210	0.167	0.321	0.047	0.131	0.130
26	0.151	0.085	0.185	26		0.239	0.042	0.160	0.040	0.246	0.098	0.175	-0.005	0.091	0.163
27	0.184	0.147	0.253	27		0.262	0.068	0.152	0.029	0.242	0.105	0.132	-0.040	0.119	0.159
30	0.198	0.133	0.203	30		0.228	0.072	0.152	0.008	0.263	0.157	0.200	-0.051	0.028	0.110
31	0.115	0.079	0.152	31		0.247	0.068	0.114	-0.038	0.308	0.098	0.174	-0.070	-0.005	0.144
32	0.099	0.067	0.164	32		0.165	0.003	0.068	-0.057	0.342	0.094	0.192	-0.032	-0.015	0.154
33	0.169	0.277	0.233	33	0.194		0.083	0.038	0.065	0.217	0.047	0.093	-0.015	0.089	0.171
34	0.227	0.243	0.257	34	0.271		0.112	0.062	0.032	0.258	0.015	0.088	-0.023	0.114	0.210
35	0.320	0.243	0.198	35	0.213		0.166	0.103	0.068	0.253	0.037	0.116	-0.006	0.165	0.168
36	0.313	0.306	0.254	36	0.264		0.159	0.089	0.087	0.266	0.096	0.187	-0.010	0.125	0.271
37	0.252	0.281	0.298	37	0.287		0.153	0.041	0.065	0.225	0.049	0.154	0.022	0.139	0.229
38	0.205	0.245	0.279	38	0.240		0.169	0.011	0.039	0.202	0.023	0.127	0.004	0.103	0.209
39	0.119	0.122	0.079	39	0.086	0.084		0.037	0.048	0.216	-0.022	0.029	0.113	0.063	0.155
41	0.152	0.068	0.131	41	-0.049	0.084		-0.022	0.074	0.066	-0.115	-0.003	0.139	0.117	0.157
42	0.065	0.127	0.169	42	0.067	0.105		-0.009	0.043	0.169	-0.014	0.098	0.026	0.107	0.158
43	0.036	0.050	0.100	43	0.066	0.168		0.020	-0.056	0.182	0.070	0.127	0.116	-0.021	0.113
44	0.089	0.091	0.103	44	0.112	0.209		0.022	0.061	0.208	-0.010	0.117	0.126	0.083	0.149
45	0.041	0.071	-0.057	45	0.108	0.046	-0.088		0.102	-0.044	0.109	-0.044	0.114	0.056	-0.001
46	0.142	0.076	0.051	46	0.137	0.075	0.035		0.127	0.113	0.128	0.005	0.172	0.055	0.074
47	0.079	0.008	-0.066	47	0.004	-0.009	0.003		0.186	-0.064	0.022	-0.021	0.143	-0.037	0.087
48	0.223	0.131	0.063	48	0.277	0.119	0.152		0.112	0.121	0.139	0.037	0.161	0.100	0.129
49	0.186	0.031	0.009	49	0.017	0.040	0.068	0.136		-0.029	0.144	0.069	0.166	0.017	0.166
50	0.237	0.127	-0.047	50	-0.041	0.029	0.054	0.135		-0.100	0.088	-0.027	0.200	0.091	0.153
51	0.222	0.193	0.001	51	-0.012	0.082	0.129	0.103		0.037	0.052	0.018	0.164	0.077	0.190
52	0.250	0.029	0.032	52	0.015	0.062	-0.089	0.141		-0.066	0.159	0.066	0.168	0.090	0.117
53	0.080	0.100	0.227	53	0.168	0.151	0.176	0.085	-0.041		0.100	0.204	0.075	0.102	0.223
54	0.086	0.108	0.206	54	0.182	0.154	0.097	0.041	0.007		-0.009	0.179	-0.021	0.049	0.216
56	-0.037	0.049	0.124	56	0.208	0.133	0.079	-0.029	-0.091		0.024	0.135	-0.059	0.077	0.119
57	0.109	0.146	0.232	57	0.270	0.244	0.159	0.042	0.019		0.029	0.203	-0.005	0.198	0.187
58	0.096	0.122	0.166	58	0.396	0.229	0.186	-0.019	-0.047		0.014	0.192	-0.013	0.060	0.220
59	0.046	0.126	0.188	59	0.284	0.287	0.208	0.019	-0.070		0.045	0.162	-0.008	0.050	0.265

Item	Family_Rel	Friends_Re	School_Re	Item	Communit	Role_Mod	Love_Rel	Communit	Financial_S	Social_Acti	Learning_C	Self_Expec	Bounceba	Problem_S	Self_Effica
62	0.128	0.102	0.160	62	0.132	0.085	0.046	0.065	0.159	0.055		0.244	0.179	0.103	0.136
63	0.109	0.020	0.070	63	0.147	0.110	-0.025	0.114	0.067	0.057		0.337	0.102	0.187	0.107
65	-0.003	-0.037	0.024	65	0.030	-0.067	-0.041	0.097	0.063	0.063		0.100	0.128	0.085	0.050
66	0.152	0.054	0.099	66	0.054	0.052	-0.075	0.052	0.156	-0.013		0.231	0.250	0.076	0.060
69	0.156	0.107	0.122	69	0.105	-0.005	-0.019	0.109	0.071	0.016		0.279	0.158	0.108	0.059
70	0.147	0.091	0.243	70	0.224	0.135	-0.012	0.031	0.029	0.259	0.264		0.026	0.029	0.272
71	0.146	0.102	0.200	71	0.131	0.121	0.096	-0.037	0.118	0.234	0.169		0.128	0.185	0.360
73	0.055	0.014	0.145	73	0.095	0.028	-0.011	0.066	0.068	0.104	0.342		0.066	0.170	0.164
75	0.170	0.116	0.264	75	0.171	0.149	0.159	-0.073	-0.004	0.161	0.200		0.125	0.090	0.264
76	0.179	0.123	0.295	76	0.217	0.134	0.044	-0.039	-0.067	0.201	0.268		-0.015	0.057	0.210
77	0.134	0.159	0.107	77	0.063	0.134	0.169	0.106	0.093	0.106	0.046	0.075		0.044	0.298
78	0.060	0.013	-0.109	78	-0.136	-0.066	-0.013	0.124	0.203	-0.045	0.205	0.035		0.087	0.187
79	0.173	0.041	0.027	79	0.048	0.005	0.109	0.130	0.117	0.057	0.203	0.154		0.033	0.255
80	0.079	0.010	-0.084	80	-0.091	-0.053	0.125	0.153	0.194	-0.114	0.138	0.021		0.043	0.200
82	0.151	0.113	0.040	82	-0.046	-0.024	0.148	0.179	0.206	-0.011	0.242	0.036		0.089	0.203
84	0.063	0.085	0.066	84	-0.011	0.014	0.058	-0.030	0.013	0.107	0.192	0.159	0.028		0.021
85	0.262	0.255	0.124	85	0.208	0.242	0.037	0.044	0.102	0.164	0.115	0.203	0.070		0.143
86	0.096	0.245	0.145	86	-0.005	0.157	0.070	0.081	0.082	0.017	0.144	0.101	0.145		0.024
87	0.172	0.114	0.067	87	0.033	0.082	0.084	0.071	0.087	0.110	0.049	0.074	0.076		-0.046
88	0.102	0.047	0.051	88	-0.014	0.018	0.023	0.024	0.029	0.058	0.068	-0.013	-0.029		-0.120
97	0.119	0.163	0.185	97	0.108	0.216	0.090	0.022	0.091	0.183	0.033	0.234	0.222	0.034	
99	0.158	0.085	0.195	99	0.251	0.205	0.031	0.020	0.186	0.235	0.178	0.393	0.178	0.036	
100	0.200	0.162	0.177	100	0.097	0.219	0.114	0.089	0.173	0.261	0.146	0.277	0.240	-0.007	
101	0.052	0.152	0.131	101	0.003	0.090	0.133	0.014	0.180	0.071	-0.032	0.165	0.184	0.024	
103	0.060	0.028	0.117	103	0.133	0.147	0.074	0.061	0.098	0.218	0.060	0.178	0.174	0.022	
104	0.108	0.141	0.083	104	0.106	0.121	0.171	0.081	0.087	0.163	0.035	0.120	0.142	-0.008	
105	0.152	0.196	0.064	105	0.117	0.134	0.186	0.132	0.123	0.202	0.075	0.174	0.305	-0.057	
106	0.047	0.074	0.176	106	0.097	0.072	-0.052	0.013	0.020	0.151	0.028	0.234	0.077	0.028	0.267
108	0.066	0.100	0.195	108	0.163	0.182	-0.085	0.028	0.082	0.175	0.093	0.212	0.060	0.026	0.300
110	0.162	0.207	0.230	110	0.218	0.224	0.081	0.052	0.072	0.198	0.138	0.281	0.093	0.078	0.294
112	0.076	0.139	0.206	112	0.112	0.215	0.013	0.055	0.192	0.164	0.168	0.363	0.265	0.125	0.410
113	0.309	0.083	0.217	113	0.232	0.277	0.005	0.114	0.152	0.185	0.256	0.369	0.218	0.093	0.429
115	0.063	-0.049	0.039	115	-0.051	0.040	0.052	0.108	0.291	-0.024	0.266	0.174	0.278	0.130	0.193
116	0.143	0.137	0.174	116	0.146	0.259	-0.004	0.105	0.089	0.203	0.142	0.210	0.143	-0.014	0.354
119	0.239	0.136	0.162	119	0.004	0.112	0.037	0.098	0.272	0.069	0.287	0.249	0.292	0.179	0.271
120	0.187	0.057	0.121	120	0.017	0.099	0.040	0.129	0.333	0.052	0.330	0.215	0.339	0.193	0.284
121	0.112	0.111	0.255	121	0.148	0.212	0.145	-0.040	-0.008	0.155	0.091	0.138	0.132	0.030	0.260
123	0.119	0.076	0.152	123	-0.010	0.087	0.038	0.126	0.240	0.079	0.268	0.198	0.303	0.184	0.267
124	0.196	0.124	0.259	124	0.208	0.251	0.153	0.059	0.166	0.233	0.233	0.346	0.238	0.150	0.402
125	0.142	0.076	0.178	125	0.165	0.107	0.059	0.129	0.045	0.193	0.152	0.105	0.255	0.104	0.309
126	0.176	0.153	0.143	126	0.075	0.108	0.151	0.103	0.154	0.085	0.084	0.123	0.354	0.006	0.463
128	0.072	0.138	0.087	128	0.025	0.111	0.068	0.020	0.104	0.056	0.056	0.182	0.221	0.008	0.413
130	0.167	0.082	0.103	130	0.129	0.105	0.141	0.034	0.101	0.194	0.137	0.264	0.182	0.070	0.440
131	0.268	0.171	0.162	131	0.221	0.243	0.131	0.139	0.092	0.200	0.211	0.253	0.218	0.063	0.487
132	0.200	0.067	0.119	132	0.149	0.162	0.105	0.100	0.038	0.093	0.160	0.183	0.176	-0.017	0.355
133	0.144	0.090	0.135	133	0.183	0.130	0.048	0.058	0.070	0.148	0.224	0.336	0.154	-0.006	0.281

Item	Family_Re	Friends_Re	School_Re	Item	Communit	Role_Mod	Love_Rel	Communit	Financial_S	Social_Act	Learning_	Self_Expec	Bounceba	Problem_S	Self_Effica
134	0.026	-0.052	-0.050	134	-0.109	-0.046	-0.031	0.049	0.138	-0.018	0.138	0.039	0.218	-0.044	0.131
135	0.082	-0.008	-0.004	135	-0.095	-0.007	-0.048	0.084	0.135	-0.022	0.121	0.054	0.327	0.002	0.166
136	0.056	-0.060	-0.027	136	-0.160	-0.035	0.015	0.014	0.119	-0.073	0.087	-0.013	0.294	0.019	0.024
137	-0.052	-0.029	-0.083	137	-0.092	-0.055	0.026	0.017	0.014	-0.083	0.086	-0.117	0.022	-0.016	-0.076
138	0.007	-0.035	-0.066	138	-0.155	-0.079	0.078	0.074	0.019	-0.071	0.110	-0.145	0.091	-0.040	-0.111
152	0.045	0.092	0.162	152	0.173	0.192	0.061	-0.015	-0.029	0.215	0.038	0.117	-0.036	0.037	0.128
153	-0.006	-0.020	0.145	153	0.164	0.094	-0.070	-0.016	-0.021	0.189	-0.005	0.125	-0.091	0.052	0.115
154	0.103	0.117	0.224	154	0.197	0.221	-0.025	-0.019	0.052	0.192	0.035	0.168	0.030	0.049	0.194
155	0.067	-0.023	0.158	155	0.237	0.102	0.024	-0.028	0.027	0.200	0.052	0.085	-0.015	0.064	0.154
157	0.100	0.068	0.163	157	0.221	0.167	0.057	-0.019	0.081	0.190	0.099	0.188	0.012	0.129	0.186
158	0.148	0.027	0.180	158	0.200	0.152	0.009	-0.031	0.041	0.199	0.084	0.157	0.003	0.108	0.152
159	0.099	0.110	0.212	159	0.242	0.160	0.154	0.054	0.036	0.231	0.093	0.166	0.033	0.136	0.191
160	0.075	0.091	0.227	160	0.168	0.139	0.118	0.076	0.147	0.233	0.036	0.174	0.127	0.073	0.290
161	0.076	0.124	0.125	161	0.179	0.139	0.181	0.042	0.191	0.261	0.063	0.163	0.102	0.185	0.358
162	0.112	0.133	0.166	162	0.218	0.199	0.240	0.046	0.119	0.254	0.003	0.148	0.035	0.131	0.286
163	0.056	0.162	0.163	163	0.192	0.184	0.152	-0.004	0.023	0.205	0.017	0.153	0.005	0.163	0.226
170	0.071	0.095	0.159	170	0.167	0.107	0.093	-0.022	-0.105	0.097	-0.018	0.026	-0.086	0.064	0.055
171	0.023	0.116	0.165	171	0.176	0.110	0.092	0.035	-0.060	0.103	0.027	0.031	-0.033	0.062	0.144
172	0.011	0.141	0.155	172	0.235	0.132	0.079	0.018	-0.125	0.156	-0.108	0.062	-0.141	0.035	0.062
173	0.025	0.153	0.187	173	0.248	0.138	0.130	0.067	-0.008	0.172	0.014	0.024	-0.077	0.124	0.133
174	0.037	0.145	0.149	174	0.153	0.119	0.095	-0.026	-0.058	0.151	-0.021	0.014	-0.093	0.086	0.163
175	0.083	0.181	0.151	175	0.235	0.087	0.149	0.085	-0.029	0.173	-0.019	0.095	-0.013	0.134	0.148
176	0.156	0.189	0.206	176	0.258	0.180	0.125	0.043	-0.018	0.184	0.054	0.101	-0.035	0.095	0.137
177	0.105	0.124	0.243	177	0.284	0.170	0.060	-0.042	-0.014	0.199	-0.031	0.145	-0.088	0.087	0.132

Item	Hopefulne	Self_Estee	Resourcefu	Stress_Tol	Spirituality	Team_Wo	Empathy	Social_Sup	CD_RISC	Max in Row	Flag	Validity	Mean
1	0.122	0.218	0.184	-0.027	0.098	0.112	0.111	0.469	0.167	1.000	>ITC	>.45	0.213
2	0.086	0.198	0.193	-0.003	0.117	0.081	0.034	0.500	0.158	2.000	>ITC	>.45	0.315
3	0.096	0.202	0.223	0.105	0.039	0.051	0.074	0.449	0.226	3.000	>ITC	>.45	0.400
5	0.072	0.168	0.178	-0.005	0.099	0.108	0.096	0.419	0.172	5.000	>ITC	>.45	0.538
6	0.077	0.244	0.194	0.045	0.050	0.090	0.008	0.376	0.167	6.000	>ITC	>.45	0.633
7	0.119	0.143	0.095	-0.070	-0.039	0.077	0.093	0.307	0.097	7.000	>ITC	>.45	0.674
8	0.095	0.090	0.049	-0.072	0.015	0.090	0.084	0.309	0.061	8.000	>ITC	>.45	0.752
9	0.120	0.093	0.106	-0.082	0.057	0.170	0.122	0.397	0.118	9.000	>ITC	>.45	0.877
11	0.108	0.062	0.160	0.051	-0.003	0.102	0.119	0.176	0.105	11.000	>ITC	>.45	1.003
12	0.133	0.019	0.104	-0.033	0.068	0.093	0.150	0.207	0.047	12.000	>ITC	>.45	1.081
13	0.159	0.092	0.176	0.010	0.142	0.128	0.220	0.328	0.141	13.000	>ITC	>.45	1.218
14	0.230	0.171	0.120	-0.075	0.193	0.190	0.190	0.213	0.146	14.000	>ITC	>.45	1.288
15	0.158	0.152	0.171	-0.057	0.181	0.193	0.162	0.234	0.150	15.000	>ITC	>.45	1.369
16	0.144	0.178	0.097	-0.075	0.182	0.160	0.175	0.251	0.087	16.000	>ITC	>.45	1.442
17	0.204	0.213	0.191	0.042	0.148	0.119	0.122	0.259	0.148	17.000	>ITC	>.45	1.549
18	0.225	0.185	0.168	-0.065	0.144	0.197	0.202	0.247	0.143	18.000	>ITC	>.45	1.624
19	0.272	0.233	0.180	-0.039	0.137	0.190	0.213	0.276	0.174	19.000	>ITC	>.45	1.730
26	0.154	0.122	0.172	-0.164	0.167	0.216	0.201	0.225	0.146	26.000	>ITC	>.45	2.288
27	0.173	0.098	0.182	-0.086	0.232	0.279	0.319	0.239	0.113	27.000	>ITC	>.45	2.390
30	0.150	0.112	0.127	-0.163	0.197	0.162	0.166	0.184	0.047	30.000	>ITC	>.45	2.612
31	0.116	0.070	0.154	-0.120	0.164	0.172	0.192	0.180	0.127	31.000	>ITC	>.45	2.685
32	0.180	0.040	0.181	-0.142	0.251	0.217	0.276	0.115	0.089	32.000	>ITC	>.45	2.769
33	0.173	0.193	0.130	-0.047	0.119	0.143	0.143	0.311	0.132	33.000	>ITC	>.45	2.873
34	0.187	0.159	0.177	-0.066	0.209	0.219	0.182	0.390	0.176	34.000	>ITC	>.45	2.979
35	0.157	0.177	0.154	-0.091	0.157	0.203	0.166	0.409	0.150	35.000	>ITC	>.45	3.064
36	0.201	0.241	0.218	-0.032	0.192	0.201	0.128	0.451	0.175	36.000	>ITC	>.45	3.174
37	0.258	0.236	0.182	-0.027	0.161	0.156	0.124	0.389	0.213	37.000	>ITC	>.45	3.245
38	0.194	0.178	0.174	-0.042	0.151	0.151	0.113	0.375	0.193	38.000	>ITC	>.45	3.307
39	-0.061	0.023	0.096	0.032	0.004	0.185	0.093	0.142	0.149	39.000	>ITC	>.45	3.325
41	-0.064	0.060	0.135	0.027	0.003	0.166	0.107	0.222	0.171	41.000	>ITC	>.45	3.484
42	0.045	0.043	0.111	-0.041	0.020	0.197	0.173	0.192	0.119	42.000	>ITC	>.45	3.582
43	0.054	0.084	0.153	-0.002	0.015	0.146	0.084	0.149	0.167	43.000	>ITC	>.45	3.659
44	0.083	0.118	0.122	0.006	-0.012	0.205	0.113	0.268	0.167	44.000	>ITC	>.45	3.768
45	0.001	0.085	0.029	0.101	-0.041	-0.016	0.032	0.017	-0.039	45.000	>ITC	>.45	3.774
46	0.061	0.124	0.190	0.060	-0.002	0.062	0.021	0.109	0.115	46.000	>ITC	>.45	3.914
47	-0.020	0.073	0.041	0.057	-0.050	0.021	-0.043	0.022	-0.029	47.000	>ITC	>.45	3.934
48	0.114	0.145	0.148	-0.006	0.017	0.119	0.074	0.166	0.088	48.000	>ITC	>.45	4.110
49	0.130	0.223	0.111	0.088	0.032	0.082	-0.094	0.105	0.090	49.000	>ITC	>.45	4.158
50	0.087	0.234	0.052	0.080	-0.020	0.112	-0.042	0.185	0.065	50.000	>ITC	>.45	4.235
51	0.083	0.182	0.115	0.033	0.062	0.129	0.010	0.208	0.159	51.000	>ITC	>.45	4.343
52	0.068	0.279	0.102	0.167	0.017	0.080	-0.077	0.177	0.108	52.000	>ITC	>.45	4.412
53	0.159	0.138	0.170	0.046	0.102	0.188	0.105	0.121	0.192	53.000	>ITC	>.45	4.536
54	0.113	0.087	0.125	0.018	0.139	0.145	0.034	0.133	0.194	54.000	>ITC	>.45	4.595
56	0.136	0.103	0.082	-0.049	0.210	0.160	0.158	0.041	0.085	56.000	>ITC	>.45	4.736
57	0.212	0.154	0.162	-0.163	0.180	0.357	0.231	0.221	0.116	57.000	>ITC	>.45	4.888
58	0.144	0.073	0.152	-0.121	0.331	0.249	0.239	0.127	0.136	58.000	>ITC	>.45	4.956
59	0.197	0.119	0.189	-0.075	0.131	0.215	0.127	0.109	0.200	59.000	>ITC	>.45	5.034

Item	Hopefulness	Self_Esteem	Resourceful	Stress_Tol	Spirituality	Team_Work	Empathy	Social_Sup	CD_RISC	Max in Row	Flag	Validity	Mean
62	0.147	0.322	0.180	0.030	0.086	0.126	0.029	0.120	0.222	62.000	>ITC	>.45	5.286
63	0.110	0.243	0.200	0.094	0.070	0.003	-0.006	0.079	0.147	63.000	>ITC	>.45	5.348
65	0.036	0.208	0.130	0.099	0.011	0.063	-0.006	-0.025	0.111	65.000	>ITC	>.45	5.463
66	0.127	0.297	0.112	0.193	-0.047	0.029	-0.082	0.021	0.148	66.000	>ITC	>.45	5.581
69	0.077	0.214	0.140	0.120	0.088	-0.037	-0.016	0.080	0.137	69.000	>ITC	>.45	5.836
70	0.305	0.269	0.290	-0.029	0.125	0.157	0.073	0.158	0.179	70.000	>ITC	>.45	5.969
71	0.296	0.293	0.214	-0.045	0.140	0.232	0.113	0.178	0.213	71.000	>ITC	>.45	6.066
73	0.206	0.258	0.151	0.063	0.045	0.073	-0.025	0.059	0.064	73.000	>ITC	>.45	6.175
75	0.311	0.302	0.228	-0.088	0.179	0.199	0.112	0.228	0.228	75.000	>ITC	>.45	6.395
76	0.247	0.193	0.232	-0.104	0.188	0.123	0.064	0.182	0.162	76.000	>ITC	>.45	6.454
77	0.219	0.253	0.331	0.066	0.066	0.185	0.084	0.200	0.369	77.000	>ITC	>.45	6.555
78	0.121	0.305	0.215	0.324	-0.078	0.014	-0.142	-0.045	0.222	78.000	>ITC	>.45	6.562
79	0.150	0.248	0.291	0.144	0.028	0.023	-0.118	0.089	0.283	79.000	>ITC	>.45	6.687
80	0.031	0.234	0.169	0.224	-0.045	0.032	-0.115	0.014	0.243	80.000	>ITC	>.45	6.725
82	0.101	0.323	0.224	0.257	-0.035	0.028	-0.048	0.080	0.347	82.000	>ITC	>.45	6.942
84	0.051	0.112	0.027	-0.001	0.017	0.117	0.045	0.121	-0.002	84.000	>ITC	>.45	7.052
85	0.145	0.127	0.172	-0.092	0.192	0.226	0.173	0.344	0.148	85.000	>ITC	>.45	7.225
86	0.078	0.216	0.037	0.000	0.043	0.140	0.030	0.284	0.034	86.000	>ITC	>.45	7.257
87	0.061	0.164	-0.008	0.011	0.059	0.142	0.088	0.207	-0.056	87.000	>ITC	>.45	7.318
88	-0.018	0.049	-0.048	-0.005	0.023	-0.014	0.075	0.100	-0.110	88.000	>ITC	>.45	7.346
97	0.332	0.309	0.349	-0.005	0.189	0.275	0.233	0.189	0.328	97.000	>ITC	>.45	8.246
99	0.355	0.352	0.390	-0.023	0.210	0.229	0.079	0.249	0.362	99.000	>ITC	>.45	8.431
100	0.269	0.360	0.434	0.083	0.130	0.225	0.084	0.268	0.457	100.000	>ITC	>.45	8.519
101	0.310	0.271	0.286	0.029	0.070	0.218	0.069	0.118	0.269	101.000	>ITC	>.45	8.534
103	0.272	0.262	0.349	-0.013	0.183	0.215	0.102	0.119	0.299	103.000	>ITC	>.45	8.715
104	0.190	0.204	0.375	0.043	0.087	0.216	0.103	0.222	0.375	104.000	>ITC	>.45	8.798
105	0.229	0.318	0.440	0.101	0.034	0.253	0.079	0.250	0.480	105.000	>ITC	>.45	8.916
106		0.205	0.203	-0.116	0.188	0.208	0.150	0.078	0.150	106.000	>ITC	>.45	8.929
108		0.363	0.260	-0.049	0.139	0.207	0.085	0.159	0.193	108.000	>ITC	>.45	9.123
110		0.309	0.301	-0.042	0.161	0.229	0.197	0.198	0.200	110.000	>ITC	>.45	9.328
112		0.488	0.308	-0.003	0.143	0.233	0.077	0.137	0.275	112.000	>ITC	>.45	9.507
113	0.364		0.392	0.069	0.184	0.155	0.065	0.331	0.348	113.000	>ITC	>.45	9.619
115	0.144		0.203	0.274	0.005	0.031	-0.160	0.067	0.200	115.000	>ITC	>.45	9.678
116	0.335		0.341	-0.004	0.124	0.259	0.182	0.212	0.270	116.000	>ITC	>.45	9.825
119	0.314		0.246	0.144	0.006	0.124	-0.044	0.209	0.319	119.000	>ITC	>.45	10.072
120	0.277		0.270	0.220	0.050	0.081	-0.134	0.163	0.318	120.000	>ITC	>.45	10.152
121	0.258		0.338	0.000	0.197	0.180	0.149	0.202	0.267	121.000	>ITC	>.45	10.222
123	0.324		0.193	0.107	0.042	0.185	-0.034	0.094	0.236	123.000	>ITC	>.45	10.386
124	0.456		0.509	0.025	0.219	0.287	0.097	0.285	0.427	124.000	>ITC	>.45	10.555
125	0.303	0.338		0.083	0.145	0.257	0.164	0.174	0.396	125.000	>ITC	>.45	10.578
126	0.190	0.314		0.160	0.076	0.204	0.067	0.233	0.468	126.000	>ITC	>.45	10.662
128	0.222	0.287		0.062	0.084	0.193	0.045	0.201	0.324	128.000	>ITC	>.45	10.791
130	0.292	0.339		0.041	0.174	0.250	0.124	0.236	0.387	130.000	>ITC	>.45	11.000
131	0.279	0.339		-0.018	0.169	0.293	0.154	0.339	0.449	131.000	>ITC	>.45	11.119
132	0.169	0.282		0.050	0.129	0.160	0.099	0.225	0.374	132.000	>ITC	>.45	11.141
133	0.222	0.254		0.054	0.162	0.130	0.136	0.216	0.306	133.000	>ITC	>.45	11.228

Item	Hopefulness	Self_Esteem	Resourceful	Stress_Tol	Spirituality	Team_Work	Empathy	Social_Sup	CD_RISC	Max in Row	Flag	Validity	Mean
134	0.017	0.178	0.112		-0.052	-0.045	-0.105	-0.090	0.198	134.000	>ITC	>.45	11.192
135	0.060	0.233	0.147		-0.037	-0.032	-0.074	-0.006	0.247	135.000	>ITC	>.45	11.305
136	-0.019	0.165	0.100		-0.156	-0.120	-0.201	-0.050	0.136	136.000	>ITC	>.45	11.338
137	-0.124	0.007	-0.013		-0.134	-0.157	-0.187	-0.099	-0.035	137.000	>ITC	>.45	11.367
138	-0.205	0.008	-0.029		-0.134	-0.119	-0.160	-0.055	-0.026	138.000	>ITC	>.45	11.457
152	0.123	0.049	0.176	-0.114		0.229	0.223	0.134	0.068	152.000	>ITC	>.45	12.753
153	0.190	0.008	0.115	-0.143		0.131	0.220	0.060	0.059	153.000	>ITC	>.45	12.804
154	0.203	0.164	0.194	-0.142		0.242	0.299	0.194	0.123	154.000	>ITC	>.45	12.951
155	0.112	0.126	0.120	-0.077		0.229	0.231	0.098	0.075	155.000	>ITC	>.45	13.001
157	0.198	0.198	0.202	-0.100		0.266	0.227	0.204	0.165	157.000	>ITC	>.45	13.208
158	0.170	0.126	0.134	-0.106		0.186	0.178	0.191	0.109	158.000	>ITC	>.45	13.267
159	0.096	0.131	0.255	-0.137	0.254		0.415	0.246	0.172	159.000	>ITC	>.45	13.389
160	0.222	0.170	0.257	-0.077	0.175		0.237	0.182	0.226	160.000	>ITC	>.45	13.474
161	0.308	0.252	0.271	-0.068	0.224		0.338	0.240	0.251	161.000	>ITC	>.45	13.584
162	0.246	0.215	0.243	-0.123	0.208		0.344	0.276	0.202	162.000	>ITC	>.45	13.654
163	0.247	0.116	0.191	-0.099	0.193		0.476	0.207	0.110	163.000	>ITC	>.45	13.714
170	0.073	-0.018	0.102	-0.147	0.194	0.350		0.234	0.048	170.000	>ITC	>.45	14.231
171	0.117	0.008	0.157	-0.109	0.189	0.338		0.161	0.105	171.000	>ITC	>.45	14.332
172	0.114	-0.071	0.094	-0.233	0.162	0.274		0.179	0.023	172.000	>ITC	>.45	14.386
173	0.125	0.005	0.129	-0.165	0.224	0.419		0.206	0.081	173.000	>ITC	>.45	14.515
174	0.127	-0.005	0.107	-0.077	0.228	0.342		0.182	0.069	174.000	>ITC	>.45	14.579
175	0.126	-0.015	0.182	-0.106	0.250	0.348		0.239	0.123	175.000	>ITC	>.45	14.692
176	0.151	0.034	0.145	-0.153	0.236	0.393		0.307	0.130	176.000	>ITC	>.45	14.788
177	0.197	0.059	0.139	-0.232	0.295	0.380		0.280	0.095	177.000	>ITC	>.45	14.858

	Cronbach	SD	SEM	Items	Mean	Range	Construct V	Other Scales
Family_Rel	0.818	18.962	8.1	5	74.6	82.7	0.619	0.149
Friends_Rel	0.779	15.96425	7.5	6	71.5	79.0	0.528	0.110
School_Rel	0.829	17.807	7.4	6	77.1	84.4	0.605	0.137
Community_Rel	0.834	22.24217	9.1	5	58.1	67.2	0.636	0.126
Role_Model_Rel	0.908	21.654	6.6	6	78.2	84.8	0.751	0.162
Love_Rel	0.810	20.212	8.8	5	75.3	84.1	0.604	0.088
Community_Safety	0.752	24.249	12.1	4	46.9	58.9	0.553	0.063
Financial_Security	0.718	23.297	12.4	4	58.5	70.9	0.508	0.086
Social_Activities	0.762	22.66009	11.1	6	49.7	60.8	0.507	0.120
Learning_Orientation	0.719	21.21334	11.2	5	41.2	52.5	0.478	0.094
Self_Expectations	0.766	18.94386	9.2	5	66.4	75.6	0.546	0.140
Bouncebackability	0.749	20.39662	10.2	5	54.8	65.0	0.514	0.103
Problem_Solving	0.742	20.51283	10.4	5	45.3	55.8	0.506	0.080
Self_Efficacy	0.770	14.232	6.8	7	71.8	78.6	0.494	0.168
Hopefulness	0.713	17.54149	9.4	4	75.9	85.3	0.503	0.151
Self_Esteem	0.802	17.9628	8.0	8	62.0	70.0	0.513	0.172
Resourcefulness	0.778	13.97342	6.6	7	69.4	75.9	0.510	0.172
Stress_Tolerance	0.716	18.47766	9.8	5	35.5	45.4	0.475	0.002
Spirituality	0.861	20.846	7.8	6	67.7	75.4	0.656	0.103
Team_Work	0.814	16.363	7.1	5	77.5	84.6	0.604	0.160
Empathy	0.883	15.175	5.2	8	75.9	81.1	0.656	0.097
Social_Supports	0.883	15.461	5.3	12	72.6	77.9	0.586	
CD_RISC	0.828	16.419	6.8	10	69.8	76.6	0.515	

	IMI	SocSup	CD-RISC	Gender	Age	Grade	Boyfriend
Family_Rel	I	III	I	I	I	I	I
Friends_Rel	I	III	I	I	I	I	I
School_Rel	I	II	I	I	II	II	I
Community_Rel	I	II	I	I	I	I	I
Role_Model_Rel	I	III	I	I	I	I	I
Love_Rel	I	II	I	I	I	I	III
Community_Safety	I	I	I	I	I	I	I
Financial_Security	I	I	I	I	I	I	I
Social_Activities	I	I	I	I	II	II	I
Learning_Orientation	I	I	I	I	II	II	I
Self_Expectations	II	I	II	I	II	II	I
Bouncebackability	II	I	III	I	I	I	I
Problem_Solving	II	I	II	I	I	I	I
Self_Efficacy	II	I	III	I	I	I	I
Hopefulness	II	I	II	I	I	I	I
Self_Esteem	II	I	II	II	I	I	I
Resourcefulness	II	I	III	II	I	I	I
Stress_Tolerance	I	I	I	I	I	I	I
Spirituality	I	I	I	I	I	I	I
Team_Work	I	II	I	II	I	I	I
Empathy	I	II	I	II	I	I	I

	IMI	SocSup	CD-RIS	Gender	Age	Grade	Boyfriend
Family_Rel	0.110	0.576	0.234	-0.031	-0.034	-0.006	0.064
Friends_Rel	0.069	0.429	0.140	0.236	0.015	0.092	-0.036
School_Rel	0.080	0.330	0.192	-0.001	-0.222	-0.267	-0.066
Community_Rel	0.079	0.245	0.137	0.076	-0.179	-0.248	-0.108
Role_Model_Rel	0.078	0.467	0.206	0.067	-0.115	-0.128	-0.115
Love_Rel	0.066	0.255	0.198	-0.094	0.144	0.124	-0.459
Community_Safety	0.101	0.100	0.043	-0.048	0.143	0.150	-0.043
Financial_Security	0.126	0.227	0.142	-0.067	0.050	0.112	-0.038
Social_Activities	-0.011	0.179	0.229	-0.123	-0.169	-0.213	-0.197
Learning_Orientation	0.181	0.083	0.224	-0.032	-0.077	-0.067	0.009
Self_Expectations	0.185	0.214	0.227	-0.001	-0.182	-0.219	-0.079
Bouncebackability	0.150	0.089	0.409	-0.144	0.119	0.144	0.075
Problem_Solving	-0.033	0.306	0.006	0.042	0.033	0.011	-0.057
Self_Efficacy	0.270	0.317	0.570	-0.141	0.025	-0.026	-0.118
Hopefulness	0.195	0.193	0.279	0.010	-0.159	-0.183	-0.060
Self_Esteem	0.240	0.292	0.456	-0.120	0.032	-0.005	-0.055
Resourcefulness	0.350	0.345	0.582	-0.085	-0.016	-0.049	-0.089
Stress_Tolerance	0.069	-0.083	0.162	-0.119	0.160	0.139	0.093
Spirituality	0.136	0.189	0.128	0.151	-0.101	-0.150	-0.043
Team_Work	0.214	0.305	0.255	-0.005	0.026	0.043	-0.143
Empathy	0.166	0.301	0.113	0.083	0.014	-0.027	-0.116

	IMI	SocSup	CD-RIS	Gender	Age	Grade	Boyfriend
Family_Rel	0.110		0.234	0.031	0.034	0.006	0.064
Friends_Rel	0.069		0.140	0.236	0.015	0.092	0.036
School_Rel	0.080		0.192	0.001			0.066
Community_Rel	0.079		0.137	0.076	0.179	0.248	0.108
Role_Model_Rel	0.078		0.206	0.067	0.115	0.128	0.115
Love_Rel	0.066		0.198	0.094	0.144	0.124	
Community_Safety	0.101	0.100	0.043	0.048	0.143	0.150	0.043
Financial_Security	0.126	0.227	0.142	0.067	0.050	0.112	0.038
Social_Activities	0.011		0.229	0.123			0.197
Learning_Orientation	0.181	0.083	0.224	0.032			0.009
Self_Expectations		0.214		0.001			0.079
Bouncebackability		0.089		0.144	0.119	0.144	0.075
Problem_Solving		0.306		0.042	0.033	0.011	0.057
Self_Efficacy		0.317		0.141	0.025	0.026	0.118
Hopefulness		0.193		0.010	0.159	0.183	0.060
Self_Esteem		0.292			0.032	0.005	0.055
Resourcefulness		0.345			0.016	0.049	0.089
Stress_Tolerance	0.069	0.083	0.162	0.119	0.160	0.139	0.093
Spirituality	0.136	0.189	0.128	0.151	0.101	0.150	0.043
Team_Work	0.214		0.255		0.026	0.043	0.143
Empathy	0.166		0.113		0.014	0.027	0.116

Min	Mean	Max
0.001	0.111	0.345

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	IMI	SocSup	CD-RIS	Gender	Age	Grade	Boyfriend			
Family_Rel										
Friends_Rel										
School_Rel		0.330			0.222	0.267				
Community_Rel		0.245								
Role_Model_Rel										
Love_Rel		0.255								
Community_Safety										
Financial_Security										
Social_Activities		0.179			0.169	0.213				
Learning_Orientation					0.077	0.067				
Self_Expectations	0.185		0.227		0.182	0.219				
Bouncebackability	0.150									
Problem_Solving	0.033		0.006							
Self_Efficacy	0.270									
Hopefulness	0.195		0.279							
Self_Esteem	0.240		0.456	0.120						
Resourcefulness	0.350			0.085						
Stress_Tolerance										
Spirituality										
Team_Work		0.305		0.005				Min	Mean	Max
Empathy		0.301		0.083				0.005	0.197	0.456

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	IMI	SocSup	CD-RIS	Gender	Age	Grade	Boyfriend			
Family_Rel		0.576								
Friends_Rel		0.429								
School_Rel										
Community_Rel										
Role_Model_Rel		0.467								
Love_Rel							0.459			
Community_Safety										
Financial_Security										
Social_Activities										
Learning_Orientation										
Self_Expectations										
Bouncebackability			0.409							
Problem_Solving										
Self_Efficacy			0.570							
Hopefulness										
Self_Esteem										
Resourcefulness			0.582							
Stress_Tolerance										
Spirituality										
Team_Work								Min	Mean	Max
Empathy								0.409	0.499	0.582
								7	7	