Outcomes Star™ Psychometric Factsheet: Integration Star™

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Background

The Integration Star is the version of the Outcomes Star designed for use with refugees needing support to integrate into their new country and to build a new life. It was published in September 2020 after 18 months of development with the Refugee Council and partner organisations, and part funded by the EU Asylum, Migration, and Integration Fund.

More information about the Integration Star can be found on the Triangle website and in the Development Summary: https://www.outcomesstar.org.uk/wp-content/uploads/Integration-Star-Development-Report-final-1.pdf

Method and analytic strategy

Routinely collected Integration Star data entered onto the Star Online by organisations working with refugees was analysed by Triangle to confirm the validity of the Integration Star as an outcomes measurement tool. In total, 555 service users were included, 184 of whom had a review reading.

A full explanation of the analytic strategy is provided in the accompanying document – Outcomes Star Psychometric Factsheets: Overview.

Results

Does it make sense for the different outcome areas of the Star to be included in the same tool?

Factor Structure: The Kaiser-Meyer-Olkin value exceeded the recommended minimum value of 0.60 (Kaiser 1970, 1974) and a significant Bartlett's Test of Sphericity (Bartlett, 1954) supported the suitability of the data for factor analysis. This analysis yielded a unidimensional factor structure explaining 61.3% of the real-data variance.

Internal Consistency: Internal consistency was good (Cronbach's α =.86).

Is each outcome area measuring a unique aspect of the service user's situation?

Item redundancy: None of the inter-item correlations exceeded the 0.7 threshold, suggesting little redundancy between areas (see Table 1).

Does the Star detect change occurring within a service?

Responsiveness to change: Wilcoxon Signed Rank Test comparing first and review Star readings revealed statistically significant change for all outcome areas. After excluding those who could not move forward (who began at 5 on the individual outcome areas), at least 48% of service users progressed in each area and the effect size was medium-large for all outcome areas (p <.001, see Table 2). The results when including service users who could not move forward (because they began at 5 on the individual outcome areas) are shown in Table 3.

Conclusion

The results of these initial analyses are encouraging and suggest that the Integration Star is a valid outcomes measurement tool, with a single underlying construct and responsiveness to change.

We are keen to examine consistency in understanding of the scales (inter-rater reliability) and the relationship between Star readings and other measures (convergent and predictive validity). Please contact us if you have Integration Star data and would like to be involved in this research.

Further research

External research about the Star as an outcomes and keywork measure can be found on our website: http://www.outcomesstar.org.uk/about-the-star/evidence-and-research/research-library/#all

TABLE 1: Polychoric correlation matrix for outcome areas (*N* = 555)

	1	2	3	4	5	6	7
1. Housing	-						
2. Money	.61	-					
3. Practical English	.38	.37	-				
4. Education and work	.44	.52	.57	-			
5. Family and children	.41	.47	.26	.33	-		
6. Community and connections	.45	.49	.44	.44	.49	-	
7. Laws, systems and services	.38	.52	.44	.50	.38	.46	-
8. Health and well-being	.52	.53	.35	.45	.58	.50	.54

TABLE 2: Responsiveness of the Integration Star (excluding service users starting at 5 who could not move forward)

Scale	Time 1 Median	Time 2 Median	Wilcoxon statistic Z	Effect size[1] r	% readings improved	N
1. Housing	3.00	4.00	-7.061***	0.43	55%	136
2. Money	3.00	4.00	-6.654***	0.37	48%	163
3. Practical English	3.00	3.00	-6.432***	0.36	43%	164
4. Education and work	2.00	3.00	-7.081***	0.38	54%	170
5. Family and children	3.00	4.00	-5.859***	0.36	48%	132
6. Community and connections	3.00	4.00	-6.561***	0.38	49%	152
7. Laws, systems and services	3.00	3.00	-7.116***	0.37	50%	181
8. Health and well-being	3.00	4.00	6.200***	0.36	53%	151

*** p <.001

[1] Cohen (1988) provided rules of thumb for interpreting these effect sizes, suggesting that an *r* of .1 represents a 'small' effect size, .3 represents a 'medium' effect size and .5 represents a 'large' effect size

TABLE 3: Responsiveness of the Integration (including service users starting at 5 who could not move forward)

Scale	Time 1 Median	Time 2 Median	Wilcoxon statistic Z	Effect size[1] r	% readings improved
1. Housing	3.00	4.00	-6.282***	0.33	41%
2. Money	3.00	4.00	-6.129***	0.32	42%
3. Practical English	3.00	3.00	-6.048***	0.32	39%
4. Education and work	3.00	3.00	-6.431***	0.34	50%
5. Family and children	4.00	4.00	-4.058***	0.21	35%
6. Community and connections	3.00	4.00	-4.968***	0.26	48%
7. Laws, systems and services	3.00	3.00	-7.043***	0.37	49%
8. Health and well-being	3.00	4.00	-5.234***	0.27	44%

*** p <.001

References

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