

Outcomes Star™ Psychometric Factsheet: My Star™

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Background

My Star is a version of the Outcomes Star for children and young people in a wide range of settings such as those in vulnerable families and looked after children.

It has eight related outcome areas- four focusing on what parents, carers and others need to do to improve circumstances (Physical health, Where you live, Being Safe and Relationships) and four focusing on what the child or young person can do to help themselves (Feelings and behaviour, Friends, Confidence and self-esteem and Education and learning).

My Star was developed by Triangle alongside professionals providing diverse services for vulnerable children and young people including those who had physical or learning disabilities, had been fostered or adopted, and/or been affected by substance misuse, trauma and abuse¹.

These collaborators contributed to the outcome areas and Journey of change and provided feedback on the tool as part of an iterative process of development and refinement. They also piloted the draft version of My Star within their services. More information about the development of My Star can be found in the organisation guide (Burns, MacKeith & Graham, 2013) and the overall principles behind the development of all versions of the Outcomes Star are described in MacKeith (2011).

Method and analytic strategy

Data on the acceptability and content validity of the pilot version was gathered using questionnaires completed by service users (n = 40) and keyworkers (n = 49) in services provided by the collaborators at the end of the 3-month pilot period.

My Star data routinely collected and entered onto the Star Online was analysed by Triangle to test the Star's validity as an outcomes measurement tool. A full explanation of the analytic strategy is provided in the accompanying document – Outcomes Star Psychometric Factsheets: Overview.

These psychometric analyses used anonymised data collected by a UK County Council within their family support services. In total, 208 service users with at least one review Star reading were included. Service users were aged between 3 and 18 (M = 11.1), the vast majority were White British (96%) and there were slightly more males (53%) than females. In terms of support needs, 32% were in families in need, 23% had experienced abuse, and 15% had mental health issues and 12% had experience bereavement or trauma.

¹ Growing our Strengths partnership, Family Action, Coram, Westminster City Council and The Salvation Army Westcare in Australia

Do service users and workers view the Star as appropriate and useful?

Acceptability and Content validity: Almost all of the children (92%) reported having understood the Star, with the majority reporting that they enjoyed completing it (65%). Around two thirds of keyworkers felt that using My Star helped them to get an overall picture of children's strengths and needs (69%) and that it helped them to understand where to focus next (64%).

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

Factor Structure: Although some inter-items correlations were below .30, a Kaiser-Meyer-Olkin value exceeding 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 55% of the real variance in the data and 73% of the common variance (i.e. that explained by underlying factors).

Internal Consistency: Internal consistency was very good (Cronbach's $\alpha = 0.80$).

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

Item redundancy: No inter-item correlation exceeded the 0.7 threshold, suggesting no redundancy between areas (see Table 1).

Does the Star detect change occurring within a service?

Responsiveness to change: Wilcoxon Signed Rank Test revealed a statistically significant increase in all outcome areas (see Table 2). Medium effect sizes were found for Where you live, Feelings and behaviour and Education and learning, and small-medium effects for the other five outcome areas.

Conclusion

The results of these initial analyses are encouraging and suggest that My Star is a valid outcomes measurement tool. As might be expected, the lowest correlations between readings in different outcome areas were found between those related to what children can do and what others can do to improve things. Nevertheless, these initial analyses indicate that the eight outcomes areas are interrelated parts of one underlying construct, which can be conceptualised as child well-being. It makes sense, for example, that parent-child relationships link to the confidence and self-esteem and that both are components of child well-being.

Further research is planned to examine consistency in understanding of the scales (inter-rater reliability) and the relationship between Star readings and other measures (convergent and predictive validity).

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: Correlation matrix for outcome areas (N = 208)

	1	2	3	4	5	6	7
1 Physical health							
2 Where you live	.35						
3 Being safe	.33	.40					
4 Relationships	.36	.33	.42				
5 Feelings and behaviour	.21	.21	.24	.32			
6 Friends	.25	.30	.18	.28	.36		
7 Confidence and self-esteem	.39	.32	.30	.39	.45	.44	
8 Education and learning	.37	.27	.24	.25	.29	.39	.43

TABLE 2: Responsiveness of the Star (N = 208)

	First Star median	Final Star median	Z	Effect size r^2
Physical health	4.00	4.00	-5.26***	0.26
Where you live	4.00	4.00	-6.55***	0.32
Being safe	4.00	4.50	-3.58***	0.18
Relationships	4.00	4.00	-4.76***	0.23
Feelings and behaviour	3.00	4.00	-6.69***	0.33
Friends	4.00	4.00	-4.25***	0.21
Confidence and self-esteem	3.00	4.00	-5.71***	0.28
Education and learning	3.00	4.00	-6.48***	0.32

***p <.001

1 Cohen 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

References

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