

Outcomes Star™ Psychometric Factsheet: Sexual health Star™

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Background

The Sexual health Star is designed specifically for work with young people around sexual health. It covers relationships, attitudes towards risk taking, confidence as well as contraception and sexually transmitted infections. It was developed by Triangle alongside Brook, the sexual health charity for young people.

More information about the Sexual health Star can be found in the Worker Guide (Burns, MacKeith, Brimelow & Pearse, 2017) and the overall principles behind the development of all versions of the Outcomes Star are described in MacKeith (2011).

Method and analytic strategy

Sexual health 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. These initial psychometric tests were conducted using anonymised data ($N = 61$) collected by a UK provider of Psychological Therapy services. The average time between 1st and 2nd Star readings was 68 days.

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. The analysis yielded a unidimensional factor structure explaining 70% of the variance in the data.

Internal Consistency Internal consistency was good (Cronbach's $\alpha = .72$).

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: The Wilcoxon Signed Rank Test revealed a statistically significant increase and medium effect sizes in all five outcome areas (see Table 2).

Conclusions

The results of these initial analyses are encouraging and suggest that the Sexual health Star is a valid outcomes measurement tool, with a unidimensional factor structure, internal consistency and good responsiveness. Research is planned to conduct these tests with a larger sample as well as examining inter-rater reliability and the relationship between Star readings and other measures (convergent and predictive validity).

Additional 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 =61)

	1	2	3	4
1 Alcohol and drugs				
2 Sexually transmitted infections	.51			
3 Contraception	.34	.65		
4 Friends and relationships	.24	.37	.24	
5 Confidence to make the right choices	.31	.33	.24	.66

Table 2. Responsiveness of the Sexual health Star (N =61)

	First Star median	Final Star median	Z	Effect size r^2
Alcohol and drugs	3.00	4.00	-4.67***	0.43
Sexually transmitted infections	4.00	5.00	-4.17***	0.38
Contraception	4.00	5.00	-4.30***	0.39
Friends and relationships	3.00	4.00	-4.62***	0.42
Confidence to make the right choices	3.00	4.00	-4.20***	0.38

*** $p < .001$

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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