

Outcomes Star™ Psychometric Factsheet: My Mind Star™

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Background

My Mind Star was developed by Triangle with Action for Children for use with young people who are experiencing mental illness or poor mental health. It is designed for early intervention services that aim to prevent the onset or development of mental illness, and to fill the gap before a mental illness is diagnosed. It may also be used to support young people who are experiencing poor mental health.

More information about the development of My Mind Star can be found in the [Development report](#) (MacKeith, Burns, Goodbrand & Good, 2019) and the overall principles behind the development of all versions of the Outcomes Star are described in MacKeith (2011).

Method and analytic strategy

This validation on the published version follows the initial tests of the pilot version, which is included in the Development Report.

My Mind Star data routinely collected by a range of organisations was analysed by Triangle to test the Star's validity as an outcomes measurement tool. In total, data from 1308 service users was included, all of whom had a second review Star 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: All inter-items correlations were above .30, 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 67% of the variance in the data.

Internal Consistency: Internal consistency was very good (Cronbach's $\alpha = .84$).

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

Item redundancy: All inter-item correlations were between 0.3 and 0.7, indicating no heterogeneity or redundancy between these areas (see Table 1).

Does the Star detect change occurring within a service?

Responsiveness to change: After excluding those who could not move forward due to starting at 5, the Wilcoxon Signed Rank Test revealed a statistically significant increase in all outcome areas, with medium effect sizes in all outcome areas (see Table 2). The results including all 1308 service users are shown in Table 3.

Conclusions

The results of these initial analyses were encouraging and suggest that the My Mind Star is a responsive unidimensional measurement tool.

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 (Polychoric correlations)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------------|-----|-----|-----|-----|-----|-----|---|
| 1 Feelings and emotions | - | - | - | - | - | - | - |
| 2 Healthy lifestyle | .49 | - | - | - | - | - | - |
| 3 Where you live | .46 | .48 | - | - | - | - | - |
| 4 Friends and relationships | .45 | .43 | .47 | - | - | - | - |
| 5 School, training and work | .47 | .50 | .35 | .39 | - | - | - |
| 6 How you use your time | .50 | .51 | .41 | .49 | .47 | - | - |
| 7 Self-esteem | .65 | .49 | .40 | .47 | .44 | .48 | - |

Table 2. Responsiveness of My Mind Star for those starting at 1-4

| | First Star median | Final Star median | Z | Effect size <i>r</i> ¹ | <i>n</i> ² |
|---------------------------|----------------------|----------------------|-----------|--------------------------------------|-----------------------|
| Feelings and emotions | 3 | 4 | -21.53*** | 0.43 | 1250 |
| Healthy lifestyle | 3 | 4 | -16.90*** | 0.34 | 1203 |
| Where you live | 3 | 4 | -13.95*** | 0.32 | 922 |
| Friends and relationships | 4 | 4 | -17.48*** | 0.38 | 1075 |
| School, training and work | 3 | 3 | -17.82*** | 0.36 | 1210 |
| How you use your time | 3 | 4 | -16.72*** | 0.35 | 1122 |
| Self-esteem | 2 | 4 | -21.06*** | 0.43 | 1203 |

****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

² Excluding those who started at 5 so could not progress

Table 3. Responsiveness of My Mind Star for all service users (N = 1308)

| | First Star median | Final Star median | Z | Effect size <i>r</i> ¹ |
|---------------------------|----------------------|----------------------|-----------|--------------------------------------|
| Feelings and emotions | 3 | 4 | -20.62*** | 0.40 |
| Healthy lifestyle | 3 | 4 | -14.76*** | 0.29 |
| Where you live | 4 | 4 | -10.12*** | 0.20 |
| Friends and relationships | 3 | 4 | -13.91*** | 0.27 |
| School, training and work | 3 | 4 | -16.00*** | 0.31 |
| How you use your time | 3 | 4 | -13.26*** | 0.26 |
| Self-esteem | 3 | 4 | -19.00*** | 0.37 |

****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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