The Validity of the Outcomes Star as a Tool for Promoting and Measuring Service User Change

1. Background

The Outcomes Star is a suite of tools for supporting and measuring change when working with people. The original Outcomes Star was developed in the UK for the homelessness sector by Triangle Consulting Social Enterprise\(^1\) and versions now include mental health, domestic violence and alcohol misuse. The tool has proved very popular with both service users and workers and is attracting increasing interest from commissioners and other funders. The Mental Health Recovery Star is featured in the UK Government’s 10 year strategy for mental health (New Horizons: A Shared Vision for Mental Health, Department of Health, UK, December 2009). Homeless Link’s Survey of Needs and Provision\(^2\) found that after the compulsory supporting people outcomes form, the Outcomes Star for Homelessness was the most frequently used outcomes measure in the homelessness sector, being used by a fifth of all agencies surveyed (Homeless Link 2011).

The Star is also being widely adopted internationally, with particular interest and uptake in Australia where it has been piloted and rolled out by the Department of Human Services in Victoria. There are also versions in French, Italian, Danish and Welsh.

There are currently over 20 versions of the Outcomes Star developed and published in collaboration with other lead sector bodies, commissioners and service providers with more in development. Three of the five appendices to this document provide further information about the Star:

- Appendix One provides an outline of the key features of the Outcomes Star.
- Appendix Two provides an outline of the core values and approach underpinning the Star.
- Appendix Three gives a full summary of the Stars currently available.

For more detail on the Outcomes Star, to see current versions and to read a selection of feedback from managers, workers, clients and funders go to [www.outcomesstar.org.uk](http://www.outcomesstar.org.uk).

2. Different perspectives on validity

When we ask ‘Is a tool valid?’ we are effectively asking ‘Does it do the job for which it was intended?’ Different stakeholders have different needs from a tool and therefore there are different questions to ask in relation to validity.

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\(^1\) Triangle was originally commissioned for work on an outcome measurement system by St. Mungo’s, with financial support from the London Housing Foundation and recognises St. Mungo’s vital role in the development of the Outcomes Star.

\(^2\) Homeless Link (2011) Survey of Needs and Provision
Service users need tools which empower them to make changes. The questions for them are:

- Does it measure the things that matter to me?
- Does it help me make sense of my situation?
- Does it empower me to make changes?

Workers need tools which help them work effectively with service users. The question from their perspective is:

- Does it help me work more effectively to support client change?

Managers need tools which help them to manage services and identify service strengths and weaknesses as a basis for service improvement. The questions from their perspective are:

- Does it enable me to understand the impact of my services on service users and how the positive impact can be increased?
- Does it help me to manage service delivery more effectively?
- Does it enable me to assess whether the service is achieving its intended outcomes?

Commissioners need tools which enable them to identify effective providers. They need to know:

- Does the tool accurately reflect service performance against commissioning goals?
- Does the tool help me distinguish effective providers from less effective ones?

Researchers and policy makers need tools which help establish which interventions are most effective. Their questions are

- Does it measure reliably over time and consistently across users?
- Does it measure what it is supposed to measure?

Questions of validity also link to fundamental questions about the nature of reality and of knowledge. Appendix Four provides a brief overview of these questions and how they relate to the validation of the Star.

Most tools fall into one of two camps. They are designed either to promote change (focusing on the service user and worker needs above), or to measure what change has
taken place (focusing on the manager, commissioner and researcher needs above). The Outcomes Star is different in that it aims to both promote and measure change, making a contribution to the needs of all stakeholders.

Although there are still many gaps in knowledge around the validity of the Star, there is a growing body of both academic and practical research. The following is a summary of existing studies.

3. **Validity of the Outcomes Star as a key-work tool**

**Key questions**

*Service users:*

- Does it measure the things that matter to them?
- Does it help them make sense of their situation?
- Does it empower them to change?

*Workers:*

- Does it help them work more effectively to support client change?

**Evidence**

*Northern Trust pilot of the Spectrum Star*

A report from the Northern Health and Social Care Trust, Ireland, evaluating a pilot of the Spectrum Star for adults on the autistic spectrum with 13 young adults aged between 14 and 18. Results highlighted that the Spectrum Star is "a very useful tool to use with young people with ASD, given its holistic and visual approach to the assessment. It also empowers the young people to make decisions with regards to intervention, while still including parents/carers at the action planning stage" and recommending the Spectrum Star as “a valuable valuable tool to implement into service delivery within the Paediatric ASD Service.”

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**Petersen et al study**

In this study the authors used the Outcomes Star for Homelessness with 15 men in a homeless shelter over a 6 week period. Each participant chose two domains on which to focus their change efforts. The study found that participants demonstrated statistically significant change. The authors conclude that the tool is effective in guiding homeless people towards self-reliance and could “change the face of the way that shelters provide and share care with the homeless population.”

**Royal Melbourne Institute of Technology University Study (Australia)**

Harris and Andrews (2013) carried out an action research study of the implementation of the Homelessness, Empowerment and Drug and Alcohol Stars at The Salvation Army’s Crisis Services Network (in St Kilda, Melbourne) which they describe as a ‘complex but typical multi-disciplinary human services delivery site’. Their report identifies twenty benefits of implementation at organisation, program, practitioner and client level. For clients benefits included

> “The opportunity to define their own reality, identify their own priorities and be accountable to them in the case-management process” and “the opportunity to understand their journey in a holistic way, beyond their presenting need, and the interrelationship between different domains in their life, across time” (page 2).

For workers the benefits included

> “A clear and consistent framework for working holistically with clients” and “a common language flowing from client engagement through individual supervision, team practice reflection and programme reporting..” (page 2)

From 2014 onwards Harris and Andrews will be beginning a new study looking at the Crisis Services Network’s use of Star data for management and service improvement.

**York Consulting Evaluation of the Family Star within Family Action**

York Consulting (2013) carried out an evaluation of the implementation of the Family Star within Family Action involving the analysis of 3,200 completed Stars, interviews with service users and staff across four locations, interviews with commissioners and Family Action’s management. The study concluded that:

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5 Harris, L and Andrews, A. (2013) Implementing the Outcomes Star well in a multi-disciplinary environment”, RMIT University, published by The Salvation Army, Crisis Services Network, Victoria, Australia

“The Star helped develop service users’ resilience and helped workers reflect on their practice, particularly in terms of improving outcomes” (page 6 of summary report). It also found that “service users engaged with the tool, because it gave them ownership of the change process” (page 6 of summary report).

Other findings from this study are reported under section 4.

**University College London, validity study**

Killaspy et al (2012) report a study which looked at a number of aspects of validity of the Mental Health Recovery Star including worker perceptions of the Star. They report that:

- Of the 183 staff completing the tool on their own 83% felt that the tool was easy to use and of the 92 staff who completed it collaboratively with service users 82% felt that it was easy to use
- Of the 183 completing the tool on their own 92% felt it was useful/very useful for care planning and 85% of those completing it with a service user felt it was useful/very useful for care planning
- 65 of the 92 service users who completed a collaborating rating (70%) reported the MHRS as being easy to use. Seventy-nine (85%) service users felt the measure was useful/very useful in helping them and the staff understand how they were getting on and 79 (85%) felt it was useful/very useful for helping them and the staff plan the support they needed.

Other findings from this study are reported under section 4.

**Burns et al study**

A study by Burns, MacKeith and Graham (2008) interviewed key members of staff from 25 organisations that had been using the homelessness version of the Outcomes Star for two years or more to find out what the impact of using the Star had been and identify good practice in its implementation. This study found that all 25 organisations reported that key-work had improved as a result of using the Outcomes Star. It also found that key-work had become more focussed on service user change, more systematic and consistent and covered a wider range of issues than before the Outcomes Star was used. Other findings from this study are reported under section 4.

**The Grange Centre for People with Learning Disabilities: Piloting the Life Star 2015**

A study of 12 pairs of keyworker and service user experience of using the Life Star, completed in 2015 by Jaina Yasmeen Bharkdha at The Grange Centre for People with Learning Disabilities. The study found that "clients enjoyed the experience of talking about various areas of their life" with the

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Star, and that the "Journey of Change appeared to resonate with the experience of participants." For workers, the study found that "the Life Star conversations in helpful in understanding their clients" and that "implementing the Life Star at The Grange compliments and accentuates the existing Person-Centred approach." In addition, the study found that "the Life Star's emphasis on collaboration promotes more choice and control for the client, which ultimately leads to empowerment." The study also found, however, a degree of scepticism from both workers and clients, around the purpose of the Star and concerns over data privacy and use – highlighting the importance of clear communication and engagement with staff and service users when implementing the Star.

**Developing a common approach to supporting the progression of young people towards employment: Pilot Project using ‘Work Star’, London Borough of Hounslow 2015**

The final report of a project evaluating the use of the Work Star with vulnerable 16+ young adults across 6 services including the Connexions team and local, partner organisations. The study found that feedback from partners involved the pilot was “overwhelmingly positive,” with particularly strong endorsements for the way the Work Star created “a consistent approach within and between organisations in how we describe where particular clients are on their journey towards employment” and the opportunities it gives for “line managers to systematically review case work and engage in outcome-focused discussions during supervisions linked to specific casework.”

4. **Validity of the Outcomes Star as a measurement tool**

**Key questions**

**Managers:**

- Does it enable them to understand the impact of their services on service users and how the positive impact can be increased?
- Does it help them to manage service delivery more effectively?
- Does it enable them to assess whether the service is achieving its intended outcomes?

**Commissioners:**

- Does the tool accurately reflect service performance against commissioning goals?
- Does the tool help them distinguish effective providers from less effective ones?

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**Researchers and policy makers:**

- Does it measure reliably over time and consistently across users?
- Does it measure what it is supposed to measure?

**Evidence**

**Triangle study on inter-rater reliability**

Triangle has developed and piloted a methodology for testing the inter-rater reliability of the Stars. This involves asking workers to score service user case studies and then comparing their answers with the correct scores (as assigned by a number of expert trainers). The approach was piloted with twentyfour workers using the Family Star. The pilot study indicated that the methodology was effective in assessing worker understanding and also provided useful information about the adequacy of the scales on the Star. The pilot indicates that the Family Star has good inter-rater reliability for the five point Journey of Change, reaching the accepted threshold of 0.8 for the Inter-rater Reliability Coefficient when outlying workers were excluded from the analysis. Triangle has begun a study to test the inter-rater reliability of the Family Star amongst a larger group of workers and will be applying the approach to other Stars.

**York Consulting Evaluation of the Family Star within Family Action**

Based on their analysis of 3,200 completed Stars as well as interviews with commissioners and Family Action’s management, York Consulting (2013) conclude that the Family Star is an effective management and measurement tool for family support work.

In relation to the usefulness of the data for managers the report concluded that:

“Family Star data can provide valuable insights into the extent and nature of changes occurring, as well as highlighting areas for further investigation…. The Family Star data can be used by services to identify where families are struggling most…..as well as where they are evidencing most positive change” (page 3 summary report)

Focusing specifically on the needs of commissioners the report concludes that:

“Commissioners clearly value the tool and the evidence it can provide... Family Star data can be used as a valuable interim indicator of distance travelled towards achieving longer term outcomes and impact” (evaluation overview).

**Triangle data roundtable**

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11 MacKeith, J. (2014) Assessing the reliability of the Outcomes Star in research and practice, Housing Care and Support, Vol 17, Iss 4, pp. 188-197
In November 2013 Triangle held a roundtable for six organisations using different versions of the Outcomes Star to share their experience of analysing Star data.

All organisations present reported that they had found the data useful for operational management of services and that at an organisational level the data could be used to identify trends. All organisations also reported positive feedback from commissioners who received Outcome Star data.

Several reported that they had found that they got the most value from their data when they carried out more in-depth analysis rather than relying on averaging scores across all clients. Approaches taken included triangulating Star data with other types of data and identifying ‘key outcome areas’ focused on in the work with each service user and analysing how these changed as compared to areas that were not focused on.

A number of organisations were concerned that their data may not be accurate, and that the starting scores that workers were recording may be too high. This was linked to staff not having challenging conversations with clients and negotiating real starting scores. In some settings it was also linked to staff having insufficient information about a client’s behaviour at the beginning of their engagement to be able to challenge them effectively. Organisations were developing quality assurance processes to address this and in some cases giving more weight to second Star readings (at which point worker and client know each other better) than to first.

St Andrews and Mental Health Provider’s Forum study to investigate the psychometric properties of the Recovery Star

Geoff Dickens Head of Nursing Research & Research Manager, St Andrew’s Academic Centre, King’s College London, Institute of Psychiatry, Northampton and Philip Sugarman, CEO & Medical Director, St Andrew’s Academic Centre, King’s College London, Institute of Psychiatry, Northampton together with Judy Weleminsky (previously) CEO of the Mental Health Providers Forum and Yetunde Onifade, Recovery Development Manager at the Mental Health Providers Forum carried out a study looking 203 adults who had completed the Recovery Star two or three times (Dickens et al (2012)). They found that the tool had very good internal consistency (Cronbach’s $\alpha$ greater than 0.8), little obvious item redundancy, and most item scores moved in a positive direction over time indicating good responsiveness. They conclude that “further research on the psychometric properties of Recovery Star is clearly warranted, but this study provides good preliminary evidence for its adoption in recovery-focused mental health services.”

University College London, validity study

Killaspy et al (2012) reported that only 116 of the 183 staff who completed the tool on their own answered the question about whether the tool was useful as a clinical outcome measure. Of these 116, 106 (91%) said that it was useful or very useful as a clinical outcome measure.

Report available on www.outcomesstar.org.uk
The study looked at the test-retest reliability of staff-only Star ratings. The ICCs (inter-class coefficients) for all ten domains on the Recovery Star were above 0.7, indicating good test-retest reliability.

Convergent validity of staff-only Recovery Star ratings and the Life Skills Profile (a measure of social functioning) was found to be good. Managing mental health, self-care and living skills had acceptable convergent validity with the total LSP score, managing mental health and self-care had acceptable convergent validity with the LSP self-care sub-domain, and social networks approached acceptable convergent validity with the LSP social contacts sub-domain.

The study also looked at inter-rater reliability but unfortunately it did not test inter-rater reliability for collaborative readings but only for staff only readings. This is disappointing because the tool is designed to be used collaboratively. Based on the staff only readings the ICC for the Work, Managing Mental Health, Social Networks and Living Skills were reasonably good (0.77, 0.69, 0.67 and 0.67 respectively). These are areas in which it is reasonable to expect that staff and service users have had discussions and so the lack of service user involvement is likely to make less impact. The ICC for areas such as Trust and Hope and Identity and Self-esteem were lower (0.62 and 0.58). This is not surprising given that it is less likely that a member of staff on their own would be able to judge this accurately without the involvement of the person themselves.

In a published letter to the Journal of Psychiatry in which the Killaspy et al. study was published, Triangle Director Joy MacKeith identifies a number of other methodological issues with this study. You can read this letter and others which raised issues about the methodology used in the study at http://bjp.rcpsych.org/content/201/1/65/reply#bjprcpsych_el_52790. The original study can be accessed at http://bjp.rcpsych.org/content/201/1/65.full).

Following this study Triangle developed and piloted an alternative methodology for investigating the inter-rater reliability of the Stars. This is outlined at the beginning of this ‘Validity of the Outcomes Star as a measurement tool’ section.

**Alcohol Star development process**

In the development process for the Alcohol Star the pilot service providers used both the Outcomes Star and other more established measures of the severity of the service user’s drinking problem along with a simple measure of alcohol usage. The findings were that of all of the measures, change on the Alcohol Star correlated most strongly with reduction in Alcohol usage. This finding indicates strong convergent reliability of this tool with measures of alcohol use.

**Burns et al study**

Burns, MacKeith and Graham (2008) also looked at organisations’ experiences of using Star data. Only a minority of organisations had, at that point, analysed the data they had collected using the Star but those that had reported that the data was helpful in assessing the effectiveness of the service and identifying areas for improvement.
5. Overview and Next Steps

5.1 Summary

Taken together this summary provides strong evidence that the Outcomes Star is a very effective key-work tool which provides outcomes information which is useful in the management of services and in identifying service strengths and weaknesses as a basis for service improvement. The findings also indicate that Outcomes Star data can play a role in meeting commissioner’s needs for information but that Star data on its own is insufficient and it is important that it is interpreted in the context of other information including direct commissioner knowledge of the service. The following table provides a summary:

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Validation questions</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service user</td>
<td>• Does it measure the things that matter to them?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>• Does it help them make sense of their situation?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Does it empower them to change?</td>
<td></td>
</tr>
<tr>
<td>Worker</td>
<td>• Does it help them work more effectively to support client change?</td>
<td>Yes</td>
</tr>
<tr>
<td>Manager</td>
<td>• Does it enable them to understand the impact of their services on service users and how the positive impact can be increased</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>• Does it help them to manage service delivery more effectively</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Does it enable me to assess whether the service is achieving its intended outcomes?</td>
<td></td>
</tr>
<tr>
<td>Commissioner</td>
<td>• Does the tool accurately reflect service performance against commissioning goals</td>
<td>Contributes</td>
</tr>
<tr>
<td></td>
<td>• Does the tool help them distinguish effective providers from less effective ones</td>
<td></td>
</tr>
<tr>
<td>Academic or policy maker</td>
<td>• Does it measure reliably over time and consistently across users?</td>
<td>Not fully tested but positive initial results</td>
</tr>
<tr>
<td></td>
<td>• Does it measure what it is supposed to measure?</td>
<td></td>
</tr>
</tbody>
</table>

In addition to meeting or partially meeting the needs of these different stakeholders both the York Consulting evaluation and the RMIT University study point to the fact that the Star addresses the needs of all key stakeholders at the same time as a unique and highly valued characteristic of the tool.

“A unique characteristic of the tool is that it engages families and front-line staff, as well as managers and commissioners in the journey of change” (York Consulting evaluation overview).
“......the Star provides a unique innovation in human service delivery because it attempts to equally occupy the areas of ‘practice’ and ‘accountability’...... (Harris and Andrews 2013 page 17)

This brings additional benefits in terms of building understanding and communication between these different stakeholders bringing with it the potential to enable more effective service design and delivery

These two studies also point to the importance of training for all staff and effective implementation to support effective use and accurate data collection.

“In order to use the Family Star effectively, it has to be integrated and embedded within an organisation’s work processes”. And “....in order to use the Star effectively, staff need to have the skills and knowledge to support having ‘difficult conversations’ with service users” (York Consulting, evaluation overview).

In view of this and other feedback on the importance of training, Triangle has now made training in the Star compulsory for all organisations.

These studies and others have highlighted the challenges of accurate completion of the Star. In the light of this the standard Star training has been adjusted to give more time and attention to this area. In addition new editions of the Star now include ‘key points’ for all scales to support accurate completion and a toolkit has been developed (based on the methodology set out in MacKeith (2014)) to quality assure Star data.

5.2 Next steps

In addition to these changes that have already been made further work is planned:

**Further studies on inter-rater reliability:** Having developed and piloted an effective methodology for assessing inter-rater reliability, Triangle will be collecting and publishing more data on the reliability of different versions of the Outcomes Star.

**Providing service providers with the means to assess the reliability of their own use of the tools:** Consistent use also depends on the systems that an organisation has to ensure that the tool is being used in the way intended and that there is a shared understanding amongst workers of how to apply it. We have developed a data assurance toolkit to enable organisations to assess their own use of the tool in an on-going way in order to be able to demonstrate internal consistency of use. We are currently piloting this toolkit with a number of organisations.

**Supporting academics carrying out further studies on the Outcomes Star:** A number of other studies are underway or planned. See Appendix Five for details.

**Stimulating new research on the Outcomes Star:** We are keen to stimulate and support further research. If you would like to support this work in any way please contact info@triangleconsulting.co.uk.
Appendix One: Key Features of the Outcomes Star

Each version of the Star consists of a number of five or 10 point scales (represented as ladders, steps or a quiz) and a Star Chart onto which the service user’s score on each scale is plotted. The attitudes and behaviour expected at each of the five or ten points on each scale are clearly defined based on an explicit model of change which underpins each of the scales. Key features are:

- It is a **holistic tool** which measures outcomes in all the key areas that are relevant to organisations working with vulnerable people.
- It is a **forward looking tool** which focuses on goals rather than problems
- It is a **distance-travelled tool**. Because the Star is underpinned by a model of change which expresses the key steps on the route to the end outcome, it is possible to track progress on the journey. This is a vital feature for organisations working in contexts where it takes time to reach the end goal or where individuals or communities will not reach the end goal in the life-time of that project
- It is an **objective tool**. Because each scale point is clearly defined, each score has a clear objective meaning, rather than being an indication of how an individual or group of people subjectively feel at that time.
- It is a **reflective tool** which is used by service users and workers together as a basis for discussing current situation, needs and progress. It can therefore be incorporated into the core work of a project, rather than being an additional administrative burden
- It is a **visual tool**. Both the individual scales and the overall results are presented in a visual format (the scales as ladders and the overall results as a Star); this makes it very accessible to a wide range of people and supports use of the Star as a basis for reflection and discussion.
Appendix Two: Under-pinning approach and values

The approach underpinning the Outcomes Star is, as far as we are aware, an original approach to assessment and outcomes measurement which draws on and extends the core principles of Action Research and Participatory Action Research (PAR) as documented by O’Brien (2001) and Carr and Kempis (1986) beyond research into assessment and outcome measurement. Writing elsewhere we have referred to this approach as Participative Assessment and Measurement (PAM) (MacKeith 2011) and have shown that it is rooted in the phenomenological approach to knowledge.

Like of Action Research and Participatory Action Research, the Star approach emphasises the values of **empowerment** and **collaboration** and **integration**. These three aspects of the Outcomes Star are elaborated below.

**Empowerment**

The understanding underpinning the Star is that in order for change to take place in people’s lives, service providers need to engage the motivation, understanding, beliefs and skills of the person themselves to create change. As in co-production, The Outcomes Star is rooted in a conception of the person receiving the service as an active agent in their own life not a passive sufferer of an affliction that the professional with their expertise and knowledge will cure.

Whilst practical changes in life circumstances (e.g. job opportunities for someone seeking work, detox facilities for someone with a substance misuse problem or appropriate aids and physiotherapy for someone recovering from an accident or stroke) may be very important, they themselves will not be sufficient. Change on the inside is the key active ingredient in the recipe of service provision and it is therefore the relationship of the individual to the challenges that they face which is the primary focus in most versions of the Outcomes Star.

This contrasts with other assessment and outcomes measurement tools which focus on the severity of the problem (e.g. the number of units of alcohol consumed in the case of substance misuse) or the external circumstances (e.g. does the person have a job or a home) For example the UK’s Health of the Nation Outcome Scale (HONOS) measures behaviour, impairment, symptoms and social functioning in mental health service users, and is clinician led and TOPs (also used in the UK) measures the extent of drug use and offending. Participatory Assessment and Measurement assumes that these things are important and should be measured but that on their own they give a very partial picture.

Service users and front-line workers report that the Outcomes Star provides a much more empowering context for their key-work because the assessment and measurement process casts them as active participants rather than objects of assessment and this sense of agency and the

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validity of their experience and perceptions is often critical to the changes they are seeking to make (Burns, MacKeith and Graham, 2008). In contrast an assessment and measurement processes that casts them as passive objects of the expertise of others can reinforce the disempowerment and lack of self-worth that may have contributed to their need for help in the first place.

Collaboration

In Participatory Assessment and Measurement as exemplified by the Outcomes Star the worker and the service user together make an assessment of their service user’s needs based on the service user’s knowledge and understanding of themselves and the workers’ experience of working with others and observations and reflections on this person’s behaviour. One could say that the measurement is ‘co-produced’. The intention is that the assessment emerges through a dialogue between service user and worker which may result in a change in the perceptions of both parties.

This contrasts with traditional approaches to assessment and measurement in which the expert collects ‘data’ from the service user, and takes that data away to make an assessment on their own. They may then decide what course of action is most appropriate and try to persuade the service user that this is the best way forward for them.

Integration

When using the Outcomes Star, the process of assessing the individual and measuring change is an integral part of the process of working with the service user and is intended to support as well as measure change. As highlighted above, the process of participating in the assessment, engaging with the model of change and reflecting on the data as presented in the Star can, in and of itself, result in change for the service user. Hence assessment becomes one part of ‘treatment’ not a separate, parallel process. In addition the assessment dialogue and the journeys of change (laid out as ladders, steps, quiz questions or through illustrations) which are integral to the assessment process in the Outcomes Star naturally lead to discussion of next steps and action planning and hence the recommended mode of use of the Outcomes Star is as an integral part of key-work.

This contrasts with traditional approaches in which the collection of data is seen as a very separate process to the treatment process and may be seen as intrusive by workers and service users.
Appendix Three: Versions and Collaborators

There are currently over 20 versions of the Star which have been published and further versions in development. The table below provides a summary of the Star, the collaborators and publishing body and date.

<table>
<thead>
<tr>
<th>OUTCOME STAR</th>
<th>Developed in collaboration with</th>
<th>Published by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Star</td>
<td>Groundwork UK Big Lottery Fund (for online version)</td>
<td>Triangle Consulting Social Enterprise, 2010</td>
</tr>
<tr>
<td>Family Star Plus</td>
<td>Leicestershire County Council</td>
<td>Triangle Consulting Social Enterprise, 2013</td>
</tr>
<tr>
<td>Older Person’s Star</td>
<td>Camden, Westminster, Hammersmith and Fulham and Brent Councils</td>
<td>Triangle Consulting Social Enterprise, 2010</td>
</tr>
<tr>
<td>Older Person’s Star – short version</td>
<td>Camden Council</td>
<td>Triangle Consulting Social Enterprise, 2011</td>
</tr>
<tr>
<td>Well-being Star (for people with long-term health conditions)</td>
<td>North East Essex Primary Health Trust (with funding from the Department of Health)</td>
<td>Triangle Consulting Social Enterprise, 2010</td>
</tr>
<tr>
<td>Alcohol Star</td>
<td>Alcohol Concern Aquarius Birmingham DAAT East Midlands DAAT Derbyshire Drug and Alcohol Service (DAAS) Addaction and Lincolnshire NHS service</td>
<td>Alcohol Concern, 2011</td>
</tr>
<tr>
<td>Music Therapy Star (for children in music therapy)</td>
<td>Coram</td>
<td>Triangle Consulting Social Enterprise, 2011</td>
</tr>
<tr>
<td>Star (for target group)</td>
<td>Organisation(s)</td>
<td></td>
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<td>------------------------</td>
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<td></td>
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<tr>
<td>Empowerment Star (for women who have experienced domestic abuse)</td>
<td>Eaves Housing London Councils</td>
<td></td>
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<tr>
<td>Spectrum Star (for people on the autistic spectrum)</td>
<td>Brookdale Care/ Milton Park Hospital</td>
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<tr>
<td>Sexual Health Star</td>
<td>Brook Advisory Service</td>
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<tr>
<td>Shooting Star (for teenagers in school settings)</td>
<td>Aldridge Foundation Nesta</td>
<td></td>
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<tr>
<td>Young Person’s Star (for young people moving towards independence)</td>
<td>1625 Independent People Coram Arch (North Staffs)</td>
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<tr>
<td>Drug and Alcohol Star</td>
<td>Norcas</td>
<td></td>
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<tr>
<td>Visual Impairment Star</td>
<td>Pocklington Trust</td>
<td></td>
</tr>
<tr>
<td>My Star (for Children)</td>
<td>The Department for Education’s Growing our Strengths Programme (managed by Action for Children), Family Action, Coram and The Salvation Army Westcare, Australia</td>
<td></td>
</tr>
<tr>
<td>Recovery Star Secure (for people in secure mental health settings)</td>
<td>Northumberland, Tyne and Wear NHS Foundation Trust, Merseycare NHS Trust, Norfolk and Suffolk NHS Foundation Trust, In Mind Healthcare, NHS North Yorkshire and York PCT</td>
<td></td>
</tr>
<tr>
<td>Attention Star (for children and young people managing ADHD)</td>
<td>Norfolk Community Health and Care Trust, and in particular consultant clinical psychologist Richard Gilham and Dr Anastasia Bem.</td>
<td></td>
</tr>
<tr>
<td>ADHD Star (for adults managing ADHD)</td>
<td>South West Yorkshire Partnership NHS Foundation Trust Service for Adults with ADHD. Particular thanks to Dr Marios Adamou, West Yorkshire ADHD Support Group, Complex Minds.</td>
<td></td>
</tr>
<tr>
<td>Star Type</td>
<td>Organization</td>
<td>Date</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Carers Star (for people in the caring role)</td>
<td>Carers Trust</td>
<td>Triangle Consulting Social Enterprise, 2014</td>
</tr>
<tr>
<td>Student Star for students with additional needs</td>
<td>Ruskin Mill Trust. It is based on the Spectrum Star for people on the autistic spectrum, developed in collaboration with Brookdale Care.</td>
<td>Triangle Consulting Social Enterprise, 2014</td>
</tr>
<tr>
<td>Family Star (Early Years) for Level 2 and below work with children 5 years and under</td>
<td>Royal Borough of Kensington and Chelsea Early Help and Children's Centres Services.</td>
<td>Triangle Consulting Social Enterprise, 2015</td>
</tr>
</tbody>
</table>
Appendix Four: Theories of Validity

How one approaches validating a tool depends on the basic understanding one has of knowledge.

Traditional approaches to validity and reliability are based on the positivist scientific paradigm which assumes an objective, verifiable truth which is separate from the human knower, the mission of the scientist being to uncover that truth through means that can be reliably replicated by others. Angen (2000) traces this paradigm back to Descartes and Galileo before him). Within this paradigm the validation of a tool is about assessing the tool against other ‘objective’ measures and assessing its own consistency over time and across users.

The phenomenological approach underpinning the Outcomes Star (also referred to as Interpretive Phenomenological Analysis) is based on the understanding that human beings “are not passive perceivers of an objective reality, but rather that they come to interpret and understand their world by formulating their own biographical stories into a form that makes sense to them” (Brocki and Wearden, 2006). Thus truth is constructed through our subjective experience and is not separate from the person having the experience. Within this paradigm, the subject is seen as an active participant who is constantly engaged in an ever evolving process of making sense of their experience and whose actions will be informed by this evolving understanding.

From this perspective the validation of the tool (referred to by Angen as an interpretive understanding of validity) is about assessing the tool against the subjective experience of workers and service users and about the usefulness of the tool in addressing practical problems (Angen, 2000).

As it is concerned with objective data rather than subjective experience, the positivist paradigm tends to be more aligned with the questions asked by commissioners, researchers and policy makers who are somewhat distanced from the direct experience of service delivery. The interpretivist paradigm, being more concerned with the experience of the subjects involved in the intervention, tends to be more aligned with the concerns of service users and workers.

The table below gives a fuller description of this difference of approach and focus

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<table>
<thead>
<tr>
<th>Positivist approach to validation</th>
<th>Interpretative approach to validation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Does the tool measure what it is supposed to measure?</strong></td>
<td></td>
</tr>
<tr>
<td>Do the tool’s measurements correlate with those of existing tools (convergent validity)</td>
<td>Does the tool measure those things that are most important and relevant to the service and service users? (face validity)</td>
</tr>
<tr>
<td></td>
<td>Do the descriptions within the tool resonate with service user and worker experiences of change? (face validity)</td>
</tr>
<tr>
<td></td>
<td>Is the data plausible to workers and managers and does it fit with their experience of service user needs and change? (face validity)</td>
</tr>
<tr>
<td><strong>Does the tool measure reliably?</strong></td>
<td></td>
</tr>
<tr>
<td>Does it measure this reliably over time? (Test-retest reliability)</td>
<td>The intention is that use of the tool changes the perceptions and motivation of the service user, therefore reliability over time is not seen as achievable or desirable</td>
</tr>
<tr>
<td>Does it measure it consistently across different users? (inter-rater reliability)</td>
<td></td>
</tr>
<tr>
<td><strong>Does the tool contribute to effective practice?</strong></td>
<td></td>
</tr>
<tr>
<td>As the tool is intended to be used for research rather than as part of treatment the effectiveness of the tool in achieving change is not seen as relevant. However the positivist paradigm does look at the ‘acceptability’ of a tool – whether it is something that workers and service users find acceptable to use</td>
<td>Does the tool support the consistency and effectiveness of key work/casework and help service users to make progress?</td>
</tr>
<tr>
<td></td>
<td>Is the data helpful in assessing the effectiveness of the service, identifying service strengths and weaknesses as a basis for on-going improvement?</td>
</tr>
</tbody>
</table>

The view of the developers of the Outcomes Star is that both the interpretative and the positivist approaches to validation are helpful but that by putting too much emphasis on the positivist validation questions, many professions have created unbalanced validation requirements. The result is that the tools that are accepted as being ‘valid’ are often:

- Formulaic rather than innovative as the requirement to correlate against existing tools makes it very difficult to validate a tool that measures something new
- Not helpful to service users who find them disempowering and not reflective of their experience
• Resented by workers who find them an unhelpful distraction rather than a useful aid to their work

• Not valued by managers who either do not receive the data collected or do not find it directly relevant to their work

The goal must be to develop a more balanced approach to validation. A realistic approach, as argued by Koro-Ljungberg (2008) would see validity as a tool rather than a reflection on the truth. Furthermore it would recognise that all forms of validation are fallible and thus that a pluralistic approach is best.

For this reason Triangle would argue that approaches to the validation of tools should take into account both the questions posed within the positivist and the interpretivist paradigms. In so doing they will address validity from the perspective of service users, workers and managers as well as commissioners, researchers and policy makers and thus create a more rounded picture of the validity of the tool for all of these key stakeholders.

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Appendix Five: Further research

Swinburne University, Australia
Associate Professor David MacKenzie is running a major multi-agency three year action research project in Geelong on prevention of youth homelessness. All secondary school children are being surveyed and the 200 most at risk will receive a key-work based intervention. There is a proposal to develop a version of the Star specifically for this project – the Star data will be analysed alongside many other data sets being collected there to evaluation both the effectiveness of the intervention and the predictive validity of Star data.

Charles Stuart University, Australia
Albury-Wodonga Health are seeking funding for two PhD scholarships at Charles Stuart University. The PhDs will evaluate a recovery oriented mental health programme in which the Recovery Star is a significant element. The work is being led by Nurse Consultant Maureen Cuskelly.

The University of Newcastle, Australia
Dr Barry Frost is Clinical Director of a Psychiatric Rehabilitation Service which has implemented the Recovery Star and used it to evaluate a new Intermediate Stay Mental Health Unit (ISMHU) and published the results and presented the data at a benchmarking meeting. He is also Conjoint Associate Professor at the School Psychology in the University of Newcastle and is planning further research around the Recovery Star.

RMIT University, Australia
Dr Lisa Harris and Dr Sharon Andrews from the School of Global, Urban and Social Studies are undertaking a 3 year study on the use of the Empowerment Star (for domestic abuse), Homelessness Star and Drug & Alcohol Star within The Salvation Army, Crisis Services Network in Melbourne, Australia.

University of Melbourne, Australia
Laura Hartley is planning to use the Homelessness Star or the Drug and Alcohol Star as part of a 3 year evaluation of a Police and Community Triage Project (PACT), which seeks to harness the role of police in identifying individuals with complex needs, and referring them to appropriate services.

Canterbury Christchurch University, UK
Dr Susan Holltum will be supervising a piece of work to model the key factors impacting on the successful use of the Mental Health Recovery Star. It is hoped that this will provide a basis for the development of an intervention trial of the Recovery Star as ‘complex intervention’ by clarifying some of the mechanisms of service user change.

The Huntercombe Group, UK
Dr Peter Ford has developed a statistical method for creating an aggregated score from the Spectrum Star. This method converts the raw data from the Star into parametric data, which is more conducive to psychometric testing and could be applied to other versions of the Star. He is planning to collaborate with other service providers to apply this method to large data sets for both the Spectrum Star and the Mental Health Recovery Star in order to further explore their psychometric properties.

Tees, Esk and Wear Valley NHS Trust, UK
Dr Helen Pearce is planning to carry out research into how the Spectrum Star is related to other measures that are used in the service, and also document the Star’s usefulness as a therapeutic process in adult services.

**Ruskin Mill Trust, UK**

This college which caters for young adults on the autistic spectrum is planning to write up the current pilot scheme that they have in place using the pilot Spectrum Star for Students for publication.