



Development Report

New Mum Star™

The Outcomes Star for preparing for and looking after your baby

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Please contact info@triangleconsulting.co.uk to enquire about buying a licence and training.

Licences may be available for those wishing to translate this report into other languages.

The Outcomes Star™

This Star is part of a family of Outcomes Star tools. For other versions of the Outcomes Star, good practice and further information see www.outcomesstar.org.uk.

Acknowledgements

Many people have contributed to the development of the Outcomes Star over its long evolution and we would like to thank all the clients, workers, managers, funders, academics and commissioners who have generously given their time and expertise.

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We would particularly like to thank the Family Nurse Partnership National Unit, the ADAPT 1 family nurses and Supervisors and Dartington Service Development Lab for collaborating in the development of the New Mum Star.

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1. Introduction

The Outcomes Star is a suite of person-centred tools for supporting and measuring change when working with people, including versions for children, people with learning difficulties and people with long term health conditions.

The New Mum Star has been developed for women as they prepare to be mums and after their baby is born. It is primarily designed to be used with first time young mums but can be used more broadly.

All versions of the Outcomes Star have a number of five- or ten-point scales arranged in a star shape. Each point on each scale has detailed descriptors setting out the attitudes and behaviour typical of that point on the scale. Underpinning these scales is a model of change (the Journey of Change) describing the steps towards the end goal that both the service and service user are trying to achieve.

In the case of the New Mum Star, the end goal is **self-reliance**, where mothers don't need the support of a specialist service to look after themselves and their baby well.

Like all versions of the Outcomes Star, the New Mum Star is both a keywork tool, supporting effective interventions, and an outcomes tool, giving management data on progress towards the end outcome. Because of this dual role, it brings together measurement and service delivery and can provide a shared language and framework across operations and data management for departments and between commissioners and service providers.

The New Mum Star has the following resources:

- The New Mum Star Chart, Notes and Action Plan for use with service users
- The New Mum Star User Guide, with both brief visual scales and detailed scale descriptions, which can be shared with service users as needed
- The short-illustrated Scales for use with service users
- The Guidance for workers, providing guidance on how to use the New Mum Star
- A web application for online completion and analysis at www.staronline.org.uk.

Background and further information about the Outcomes Star suite of tools can be found at www.outcomesstar.org.uk.

About this Development Report

This report outlines the theoretical foundations for the New Mum Star, the process of its development and the research that supports it. The report includes analysis of the psychometric properties of the pilot version of the tool and further research into the psychometric properties of the final tool is planned. For the latest information on this please contact info@triangleconsulting.co.uk.

2. Theoretical foundations of the Outcomes Star™

A new approach to outcomes measurement

The approach underpinning the New Mum Star, and all versions of the Outcomes Star is an original way of dealing with assessment and outcomes measurement. It draws on the core principles of Participatory Action Research (O'Brien, 2001; Carr & Kemmis, 1986) – empowerment, collaboration and integration – and extends them beyond research into assessment and outcome measurement. Participatory Action Research seeks to empower the subjects of research, collaborate with them and integrate research into practical action to improve people's lives. For a fuller summary please see MacKeith (2011).

In the same way, the New Mum Star seeks to empower service users within a collaborative process of assessment and measurement that is integrated with support work rather than a separate activity.

Empowerment

Underpinning the Star is a belief that, in order for change to take place in people's lives, service providers need to harness the motivation, understanding and skills of the person themselves to create change.

Practical changes in life circumstances (such as moving to more appropriate accommodation) may be very important, but they are often not in themselves enough to enable people to achieve their goals. A key active ingredient in achieving sustained outcomes is change that takes place within the individual. For this reason, the primary focus in the New Mum Star is the relationship of the individual to the challenges that they face.

Service users and front-line workers report that the Star provides a much more empowering context for keywork than other approaches because service users are active participants in the process rather than having assessment done to them. Being involved in their own process of change – and the validation of their experiences and perceptions – is often critical in helping them make the changes they seek (Burns, MacKeith & Graham, 2008). In contrast, when an assessment and measurement process requires service users to be passive objects of the expertise of others, it can reinforce the disempowerment and lack of self-worth that may have contributed to their need for help in the first place.

Collaboration

When using the New Mum Star, the worker and service user assess the service user's needs together. The service user bases their assessment on their knowledge and understanding of themselves, and the worker applies their professional experience of

working with others and their observations and reflections on this person's behaviour. The assessment emerges through a dialogue between service user and worker and this may result in a change in the perceptions of both.

The Star makes the model of change explicit and the information that is collected is immediately presented back to the service user as a completed Star. This allows the service user and worker to take an overview together and to reflect on the completed Star as a basis for deciding what actions are needed. The service user takes an active role in defining issues, identifying actions and thinking about consequences for themselves. As a result they are much more likely to be behind the plan that emerges from the completed Star.

This contrasts with extractive 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

Completing the Star is an integral part of working with the service user and is intended to support as well as measure change. For the service user, the process of participating in the assessment, engaging with the model of change and reflecting on the data the Star presents can in and of itself result in change. It can also have the same impact on the staff and carers working with the person. In addition, the assessment dialogue and the Journey of Change that underpins the Star naturally lead to discussion of next steps and action planning. As a result, the assessment becomes an integral part of the intervention.

This contrasts with traditional approaches in which the collection of data is seen as a separate process to the intervention and may be regarded as intrusive by workers and service users. The differences between the Star and traditional approaches to measurement are summarised on the next page.

| | New Mum Star | Many traditional approaches |
|----------------------|--|--|
| Empowerment | <ul style="list-style-type: none"> • Service users are seen as active co-producers of change • Their motivation, understanding, beliefs and skills are often key to creating change, while recognising external factors beyond their control • The focus is on the service user's relationship with the issue | <ul style="list-style-type: none"> • Service users are seen as passive recipients of help, with "experts" having the knowledge to devise solutions • The focus is on the severity of the issue |
| Collaboration | <ul style="list-style-type: none"> • The worker and service user collaborate in assessment, with the potential to build a shared perspective on issues and the action needed | <ul style="list-style-type: none"> • These employ either self-report measures or professional assessment measurement tools that don't build a shared perspective |
| Integration | <ul style="list-style-type: none"> • Assessment and measurement are an integral part of keywork | <ul style="list-style-type: none"> • Assessment and measurement are additional tasks that can be resented by workers as a distraction from "real" work |

Similarities to other approaches

The Star is closely aligned to person-centred, strengths-based, co-production and trauma-informed approaches and can support people and organisations to put those values into practice:

- **Person-centred:** The Star encourages and enables workers to listen to the perspective and priorities of service users and to work with them collaboratively. It helps engage service users to develop realistic action plans based on where they are on the Journey of Change
- **Strengths-based:** The Star is holistic and enables people to focus on aspects of life that are going well rather than have an assessment focused entirely on areas of difficulty. The scales focus on what service users can change, rather than the severity of their problems or circumstances

- **Co-production:** The collaborative approach to completion means that the service user and worker co-produce the assessment and measurement together and build a shared perspective as a basis for action. This is in contrast to expert assessment or self-report approaches in which the two perspectives remain separate
- **Trauma informed:** The collaborative nature of the Star helps to give the service user control, which has been shown to be important in building a sense of safety for people who have experienced trauma. The focus of the tool is primarily on how things are now, rather than focusing on past experiences which might trigger someone's trauma and put them outside their safe 'window of tolerance'. In addition, the guidance for use emphasises the importance building of a trusting relationship and a shared perspective as an essential foundation to moving forward

3. Methodology and findings from the New Mum Star development process

The methodology for developing all versions of the Outcomes Star is based on Action Research (O'Brien, 2001) and the Existential Phenomenological research method (McCall, 1983). Action Research is a collaborative process of identifying issues, trying out solutions and assessing what works. This phenomenological method places a strong emphasis on understanding the subjective experience of the person or people being researched and the meaning of the experience for them.

Ensuring that service user and worker perspectives were central to the development process, the New Mum Star was developed in collaboration with the Family Nurse Partnership and their services providing support to first time young mums. There was an expert working group overseeing the process which consisted of supervisors and family nurses from the Family Nurse Partnership and leads from the National Unit and the Dartington Social Research Unit.

The development of the New Mum Star consisted of three main stages:

Stage 1: Establishing the need for the New Mum Star

Stage 2: Identifying the model of change and desired outcomes for service users

Stage 3: Consultation, piloting, and refining

This section of the report sets out the process and findings of each stage of the development process.

Stage 1. Establishing the need for the New Mum Star

The Family Nurse Partnership have been working with Dartington Social Research Unit to deliver the ADAPT programme across their services to improve the support being offered. The ADAPT programme aims to rapidly adapt, test and improve the Family Nurse Partnership programme in England and as part of this programme the Family Nurse Partnership approached Triangle to create an Outcomes Star to fulfil their outcomes measurement needs. The Family Nurse Partnership wanted a version of the Outcomes Star to be integrated into and enhance the support offered by FNP and to help identify those in continued need of Family Nurse support, as well as to track progress.

Stage 2. Identifying the model of change and desired outcomes for parents

Workshop 1 (August 2016): A one-day workshop was held to identify intended outcomes and processes of change in work supporting first time young mothers. This workshop was attended by an expert working group made up of Family Nurses, Supervisors and leads from the National Unit and Dartington Social Research Unit. The workshop included a series of activities to provide insight about their experiences of working with service users and the criteria needed to determine whether the support that is delivered to service users results in positive change.

The key questions asked in Workshop 1 for all versions of the Outcomes Star are as follows:

- What are the main areas in which services and service users are seeking to create change? *These areas become the points of the Star*
- What is the desired outcome of the change process? *This becomes the end point on the Journey of Change that underpins all the scales*
- What model of change describes the steps that service users take on the journey towards that end point? *This is described in a series of steps – the Journey of Change – showing a clearly discernible, qualitative difference between each step of the journey.*

A range of techniques were used to draw out participants' subjective experience and knowledge including:

- Using the Outcome Triangle tool to identify the overall aim of services, the specific outcomes they are trying to achieve and the activities they carry out to achieve these changes
- Bringing to mind an individual who has undergone a substantial change and identifying the key steps involved in their process of change

- Hearing feedback about suggested outcome areas and discussing how they would work in different situations and with different service users.

Triangle compiled all the material gathered from the working group at Workshop 1 and reviewed it to allow meaning and common strands to emerge. An initial review of the literature was also conducted to examine outcome areas found to be important in supporting first time young mothers, as well as looking at existing outcome measurement and assessment tools used with this service user group. On the basis of this learning, the provisional model of change and outcome areas for the New Mum Star were developed. These were then used as an outline or 'skeleton', from which the first draft of the New Mum Star was created.

Workshop 2 (October 2016): A one-day workshop was held to present the first draft of the New Mum Star to the expert working group and to hear feedback to inform the pilot version of the Star.

The Journey of Change and outcome areas for the New Mum Star that emerged from the data gathered in Workshop 1, the review of literature and existing tools and the feedback at Workshop 2 are shown below:

| | |
|--|--|
| The pilot New Mum Star Journey of Change | 5 Self-reliance 4 Learning what works 3 Believing and trying 2 Accepting help 1 Stuck |
| The pilot New Mum Star Outcome Areas | 1 Looking after your baby 2 Your baby's development 3 Connecting with your baby 4 Home and money 5 Relationship 6 Support networks 7 Your health 8 Emotional well-being 9 Keeping your baby safe 10 Goals and aspirations |

Stage 3. Consultation, piloting and refining

Practitioners were trained to use the New Mum Star and it was piloted over a six-month pilot period. Data gathered during the pilot was analysed to test the tools' psychometric

properties and feedback forms from workers and service users were used to inform the need for further changes.

Service user feedback

- Triangle received 71 completed questionnaires from service users who had used the New Mum Star during the pilot period
- 97% of service users agreed or strongly agreed that their completed New Mum Star was a good summary of their life and needs
- 93% of service users indicated that they enjoyed completing the New Mum Star with their Family Nurse
- Only 17% of service users found the process of completing the Star too long
- 94% agreed or strongly agreed that the scales helped them to understand what they needed in the way of support
- 89% of service users indicated that the New Mum Star helped them to track their progress

Worker feedback

- Triangle received 13 feedback forms from Family Nurses completing the Star with service users
- 100% of Family Nurses indicated that they felt the New Mum Star described the situation, strengths and needs of the service users that they work with either fairly or very well and agreed that it helped them get an overall picture of service users' situations and needs
- Only 8% of Family Nurses agreed that the process of completing the New Mum Star took too long
- 100% of Family Nurses agreed or strongly agreed that the scale descriptions helped them to understand where to focus next with the service users that they work with
- 83% of Family Nurses indicated that the New Mum Star helped them discuss challenging issues with service users and 92% indicated that the New Mum Star helped them to decide what to cover in their home visits
- 92% of Family Nurses agreed or strongly agreed that the New Mum Star helped them to decide how to personalise Family Nurse Partnership support for service users

See Appendix 1 for service user open ended feedback.

Analysis of the pilot data

The Star data collected during the pilot of the New Mum Star was analysed in order to provide an initial assessment of the psychometric properties of the pilot Star. During the initial pilot period 805 initial Star readings were completed and 240 of these Star readings (30%) were reviewed.

Distribution

The data was skewed with a larger proportion of service users at the higher end of the Journey of Change. The skewness statistic ranged from -0.90 - -0.49 for all the areas excluding *Connecting with your baby* (skew -1.50) and *Keeping your baby safe* (-1.76) with scores smaller than -1.0 being taken as indicating a serious deviation from normal distribution.

As a rule of thumb, if more than 20% of service users fall into the highest category there is a ceiling effect, making it harder to demonstrate change and this could be applied to all the areas of the pilot New Mum Star, indicating that initial Star readings were higher on the Journey of Change than expected. The distribution of initial Star readings may be explained by the fact that service users participating in the pilot were not necessarily new to the service when their first Star reading was completed. Service users may have been receiving support for some time and already progressed along the Journey of Change. See Appendix 2 for distribution graphs.

Internal consistency

The pilot version of the New Mum Star was found to have a high level of internal consistency (Cronbach's $\alpha = .88$), with a Cronbach's α of .7 taken as indicating good internal consistency. Further analysis is needed to confirm the internal consistency of the final version of the New Mum Star.

Item redundancy

There was no evidence of non-homogeneity (correlations below .3 indicating item redundancy) or item redundancy (correlations about .7) in the pilot version of the New Mum Star. The highest correlation found between Star areas was between *Looking after your baby* and *Your baby's development*. See Appendix 3 for inter-item correlations.

Factor structure

An exploratory factor analysis suggested a unidimensional structure, with one factor explaining 58% of the common variance in Star readings.

Responsiveness

First Star readings were high, leaving little or no room to change, since many of the first readings were completed with existing service users rather than those new to the service. Consequently, those at the highest Journey of Change stage were excluded before performing a Wilcoxon signed ranks test to test the responsiveness of the pilot New Mum Star. As can be seen in Appendix 4, there was significant change for all outcome areas (p

<.001) with medium effect sizes for Looking after your baby, Connecting with your baby and Keeping your baby safe and small-medium effect sizes for all other areas.

Workshop 3 (October 2017): Further feedback was gathered on the pilot version of the New Mum Star at the third meeting of the expert working group. This workshop also provided an opportunity for reviewing the format of the tool, its scope (for example, whether it was unsuitable for any of the service user groups it was piloted with), the guidelines for use and the value of the data generated to the pilot services. This informed the final version of the New Mum Star.

Workshop 3 feedback:

The working group was asked some specific questions about the pilot New Mum Star and the answers are summarised below.

What did you think of the pilot New Mum Star?

The working group were mixed in their overall thoughts of the New Mum Star with 45% of the group indicating that they were unsure about the pilot version and thought changes needed to be made and 55% of the group indicating that they were generally happy with it.

When did the New Mum Star work well and not so well?

The working group discussed what worked well and not so well when using the New Mum Star during the pilot period. The following comments were made about where the Star worked well:

- The Star often brought up things that hadn't previously come up in conversation with a service user
- The New Mum Star was a good tool for giving some feedback about a client to midwives
- The New Mum Star was good to use in supervision sessions as it brought more focus
- The Star was a useful tool to help explore a service user's emotional health
- The New Mum Star helped to support challenging conversations with service users

The working group also explored where the pilot version of the New Mum Star did not work so well in practise. The following comments were made:

- The use of numbers on the Journey of Change can have a negative impact on service users as they often want to 'score' higher on the Journey of Change than where they realistically are and this can be demoralising for them
- If a service user is in chaos and a lot is going on it is difficult to complete the New Mum Star and you have to be very careful how you complete the Star with them to avoid them disengaging

- The wording in some scales can make it difficult to challenge clients and has prevented some conversations
- There can be difficulties completing some areas. For example, in physical health a service user can be doing well to look after themselves but they smoke so they are low on the Journey of Change, however this is not representative of how they look after their health
- The traffic light colour system for the Journey of Change can be seen as judgemental and off-putting
- There is a concern that Star readings may slip back from scores during pregnancy after a mother has given birth as so much changes during this time for young mothers

In which areas of the pilot New Mum Star do changes need to be made?

The working group was asked to give specific detail about where the Journey of Change and outcome areas needed changes to be made to make the final version of the New Mum Star work well for both service users and workers. Suggestions were made for all the outcome areas including wording changes, the inclusion of more examples and themes in certain outcome areas and the removal of the scale 'Connecting with your baby'.

Conclusions from the pilot and Workshop 3

The feedback from the pilot showed that the pilot New Mum Star was generally seen as positive by both service users and Family Nurses, although there were a few changes that were necessary. Improvements to the New Mum Star were agreed at Workshop 3 in the light of the feedback gathered, discussion in the workshop and the psychometric evaluation of the pilot Star.

The changes to the pilot version of the New Mum Star to create the final version were as follows:

- The Journey of Change was changed from a 10-point scale to a 5-point scale
- The scale **Health** was amended to also include well-being and most of the content from the **Emotional well-being** scale was added in here
- Aspects about how service users feel about being a mum and how they were parented from **Emotional well-being** were added to the scale **Connecting with your baby**.
- Understanding the baby's cues was also removed from **Your baby's development** and added to the scale **Connecting with your baby**
- Smoking, drugs, alcohol and stress were added to the scale **Your baby's development** with smoking around your baby after they are born being put in the scale **Looking after your baby**
- Smoking, drugs and alcohol were also added to the **Health and well-being** scale to reference to the mum's health.

- The scale **Looking after your baby** was also amended so that while pregnant it includes more on people's concerns about the mum being able to look after the baby once it's born.

The Family Nurse Partnership then chose to pilot the New Mum Star for a further 3 months to test out these changes. Following this second pilot period minor wording changes were made to the Star and the final version was created.

4. References

Burns, S., MacKeith, J., & Graham, K. (2008). Using the Outcomes Star: Impact and good practice. Research Report. http://www.outcomesstar.org.uk/storage/OutcomesStar_Impactandgoodpractice.pdf

Carr, W. and Kemmis, S. (1986) *Becoming critical: Education, knowledge and action research*. London: Falmer Press.

MacKeith, J. (2011). The development of the Outcomes Star: A participatory approach to assessment and outcome measurement. *Housing, Care and Support*, 14(3), 98-106.

McCall, R. (1983) *Phenomenological psychology*, Madison, Wisconsin: The University of Wisconsin Press.

O'Brien, R. (2001). An overview of the methodological approach of Action Research. In Roberto Richardson (ed.) *Theory and Practice of Action Research*, Joao Pessoa, Brazil: Universidade Federal da Paraiba (English version).

5. Appendices

Appendix 1: Service user open ended feedback following the New Mum Star pilot

The majority of the open-ended feedback from service users was positive, however it is important to keep in mind that only 9% of service users who completed the New Mum Star gave feedback on the Star. Service users were asked, 'What do you like about using the New Mum Star?' and their feedback is summarised below:

Service users felt the Star helped them to understand their situation

- "It made me think about things in a lot more detail"
- "It provides alternative ways of explaining various situations"
- "You could see who you actually had as support"

Service users commented that the New Mum Star helped them see where they needed more support

- "It helps pinpoint things you want to work on"
- "I liked the fact it praised you but also makes it clear where you need support"
- "It helped me realise what I have and need for the baby and it helped me realise and think more like a mum and prepare me to be the best mum I can be"

Service users highlighted that the Star helped them see where they had progressed

- "I liked doing the New Mum Star. It made me feel good seeing where things had improved for me since being pregnant"
- "It shows how I am learning new things and ways to care for my baby"
- "I can see the progress that I've made over the past few months. It helps me to know what I do and don't need in my life"
- "Can highlight areas that I am doing good in but also highlight areas that I need to improve on"

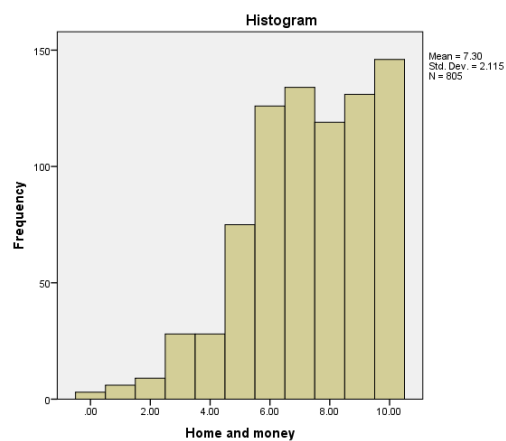
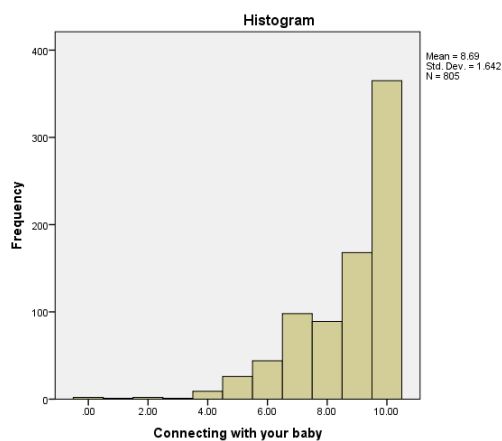
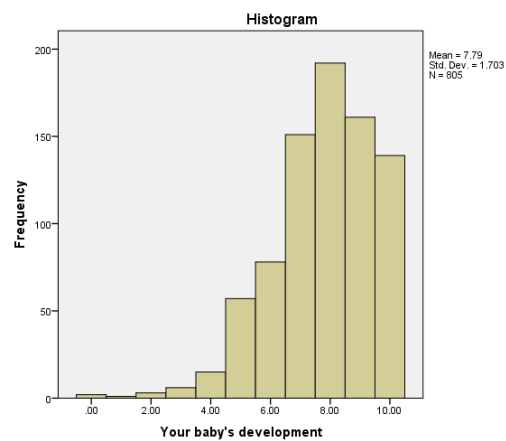
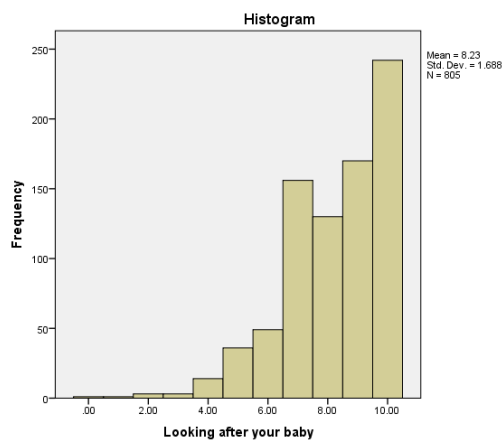
Service users suggested they like the content of the Star

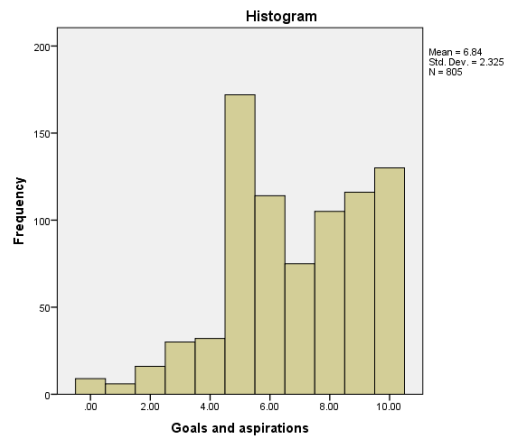
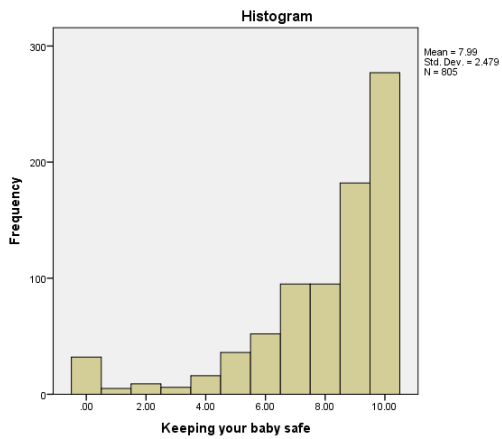
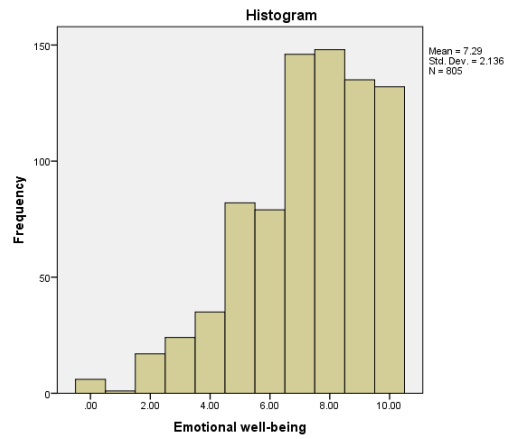
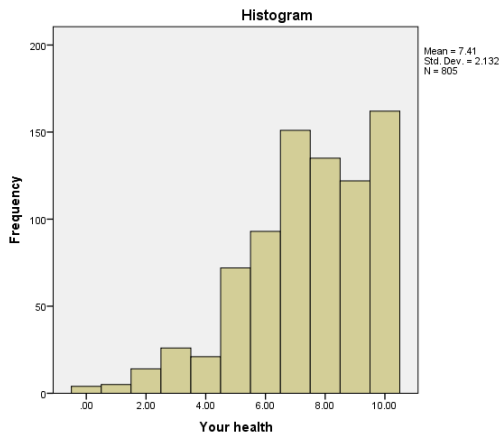
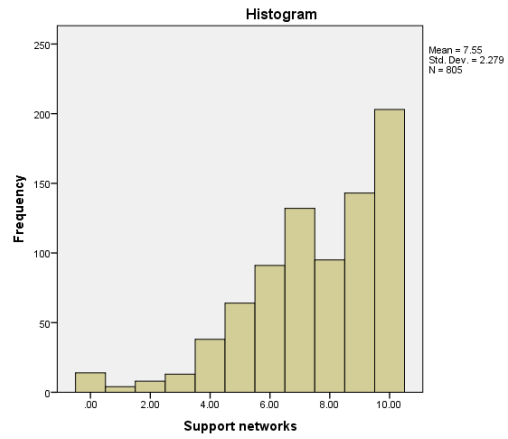
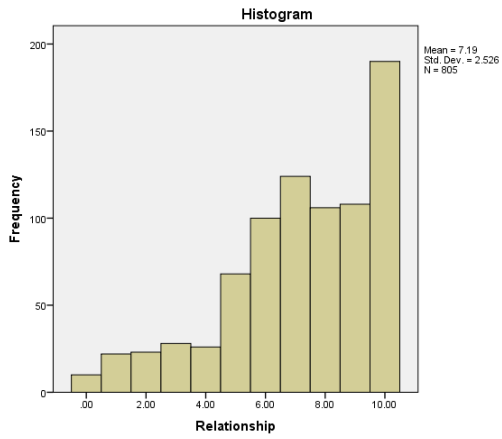
- "It was visual and I could see what I needed to work on"
- "Very detailed questions which I like"
- "I like it talks about my baby"
- "I like visual things to work with and the 1-10 assessment is easy to understand"

One service user gave more negative feedback on the Star

- “I don't like it. I don't want to do it again it stresses me out. My nurse can do it for me but I don't want to talk about it. It is not helpful in the slightest because if you get low answers you think social will get involved. My situation changes all the time so it is different every time my nurse comes. I may have no money this week but win the lottery next week. I don't think it is well designed for people in my situation. The descriptions don't fit what is happening in my life.”

Appendix 2: Graphs showing the distribution of initial Star readings across the Journey of Change stages during the pilot of the New Mum Star





Appendix 3: Table showing the pilot New Mum Star inter-item correlations

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 Looking after your baby | | | | | | | | | |
| 2 Your baby's development | .73 | | | | | | | | |
| 3 Connecting with your baby | .68 | .66 | | | | | | | |
| 4 Home and money | .49 | .46 | .41 | | | | | | |
| 5 Relationship | .37 | .41 | .39 | .36 | | | | | |
| 6 Support networks | .39 | .44 | .41 | .42 | .41 | | | | |
| 7 Your health | .45 | .46 | .44 | .39 | .37 | .42 | | | |
| 8 Emotional well-being | .43 | .40 | .42 | .41 | .45 | .49 | .54 | | |
| 9 Keeping your baby safe | .40 | .39 | .40 | .34 | .36 | .45 | .36 | .43 | |
| 10 Goals and aspirations | .43 | .49 | .41 | .40 | .33 | .42 | .39 | .39 | .38 |

Appendix 4: Table showing the results of Wilcoxon signed ranks test to assess the responsiveness of the New Mum Star

| Outcome area | First Star reading Median | Second Star reading Median | Wilcoxon statistic Z | Effect size ¹ <i>r</i> |
|---------------------------|---------------------------|----------------------------|----------------------|-----------------------------------|
| Looking after your baby | 7 | 7 | -5.50 | .36 |
| Your baby's development | 7 | 8 | -4.22 | .25 |
| Connecting with your baby | 7 | 8 | -4.05 | .33 |
| Home and money | 6 | 7 | -3.82 | .21 |
| Relationship | 6 | 7 | -4.19 | .24 |
| Support networks | 6 | 7 | -4.49 | .26 |
| Your health | 7 | 7 | -4.49 | .29 |
| Emotional well-being | 7 | 8 | -4.33 | .24 |
| Keeping your baby safe | 7 | 8 | -6.16 | .42 |
| Goals and aspirations | 6 | 6 | -3.84 | .21 |

* $p < .001$

¹ Cohen provided rules of thumb for interpreting 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.

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