University of Salford MANCHESTER

SHUSU
SUSTAINABLE HOUSING & URBAN STUDIES UNIT

# Growing Spaces: An Evaluation of the Mental Health Recovery Programme (MHRP) Final Report

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October 2017

## About the authors

The Sustainable Housing & Urban Studies Unit (SHUSU) is a dedicated multi-disciplinary research and consultancy unit providing a range of services relating to housing and urban management to public and private sector clients. The Unit brings together researchers drawn from a range of disciplines including: social policy, housing management, urban geography, environmental management, psychology, social care and social work.

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Michelle is a senior lecturer in nursing in the School of Health & Society and joint lead for the pan-University 'Creative Wellbeing' research group. She is an experienced healthcare practitioner and is best known for her significant experience and expertise in engagement with community groups for example in leading research evaluations of the impact of therapeutic horticulture. She also has significant knowledge of applied ethics. Michelle was awarded the University's Harold Riley award for community engagement in 2016 for her work with service users and carers and is currently working with local community groups to help develop & establish a Natural Health Service Green Network. The main focus of Michelle's research is on the development of methodologies that can evaluate the impact of green space on the health and wellbeing of individuals and communities.

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Michaela is a Lecturer in Social Work in the School of Heath & Society, University of Salford. She is a registered social worker with both practice, teaching and research experience in a range of areas including interpersonal violence, domestic abuse and 'seldom heard' groups. Michaela has published widely on issues around trans and gender diversity as well in relation to other marginalised groups and the barriers/enablers to social care provision. Michaela is the lead author of Developing Skills for Social Work Practice (2016) and co-edited the book Working with Marginalised Groups (2016).

**Mr Neil Withnell:**
Neil is Associate Dean Academic Quality Assurance at the University of Salford. He is a qualified mental health nurse with over 30 years of experience, and has a keen interest in all strategies to improve mental health and to the equality of mental health with physical health. Neil is the author of Family Interventions in Mental Health.

**Ms Cath McQuarrrie:**
Cath is a Senior Lecturer in Mental Health Nursing at the University of Huddersfield. She currently is involved in the delivery of pre-registration nurse training and has a special interest in promoting mental health and wellbeing, recovery and developing inclusive practice. She has previously been involved in the development and delivery of a training programme to support the implementation of a health and wellbeing service within Salford, which developed coaches to work with the public on a number of health related issues.

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# Executive Summary

## 1.1 Background

Therapeutic Horticulture (TH) is a nature-based method which can be used to promote wellbeing for people with mental health problems. Typically, nature based approaches include a range of green activities such as gardening (Howarth et al 2016). It is believed that TH provides a person centred approach that can reduce social isolation for people with mental health problems.

## 1.2 Project Aim:

The aim of the project was to evaluate the impact and use of TH within a Mental Health Recovery Programme (MHRP) on social inclusion and engagement for people with mild mental health problems.

## 1.3 Methods

A mixed methods approach was used to explore the impact of the MHRP on participants. Data from 4 semi-structured focus group interviews, 11 exit interviews and 20 Recovery Star data sets were collected from September 2015 to October 2017. Qualitative data from the interviews were thematically analysed and quantitative data based on a validated Recovery Star outcomes tool were analysed using descriptive statistics to demonstrate trends and progression. The findings were then triangulated to provide a rich picture of the impact of the MHRP.

## 1.4 Results

The Recovery Star data indicated that participants were working towards self-reliance, furthermore, there was a positive impact on employment, social networks and self-esteem. Qualitative data from the exit interview and semi-structured focus groups found similar results. The triangulated findings highlight that the MHRP enabled participant integration into the community through providing a space to grow, confidence and re-engagement with society.

## 1.5 Discussion

The results suggest that therapeutic horticulture can support people with mental health problems to socially re-engage. Nature based activities could be used within the 'social prescribing' movement to encourage partnership working between primary, secondary and voluntary sector organisations which can complement existing mental health services.

## 1.6 Conclusion.

The use of a MHRP can support people with mental health problems to re-engage with the community and is integral in the rehabilitation process and should be promoted within the social prescribing movement as an evidence based opportunity to support people in the community.

# 1. Introduction

The World Health Organisation predicted that mental health problems such as depression will become a major strain on services by 2020 (WHO, 2001). Moreover, the association between mental illness and social deprivation is established and recognised as significant, and it is conceded that poverty, in particular, can negatively influence poor mental health (Murali & Oyebode 2004). A number of public health strategies have been implemented to help promote health and well-being by targeting urbanised communities, particularly in socially deprived areas. An illustration of this was the Department of Health's (DH 2007) 'Putting People First: Planning Together' paper which reinforced the need for peer and self-directed support for people with mental health problems in deprived areas. Moreover, the use of non-medical interventions within a 'social prescribing' movement to promote person centred approaches for people with social or psychosocial needs is recognized as a method that can actively target individuals and communities within socially deprived areas (University of Westminster 2017). Social prescribing can include nature based activities such as 'ecotherapy', 'therapeutic horticulture' or 'green care' to support an individual's recovery. More recently, social prescribing was included within the Greater Manchester Population Health Plan (2017-2021) which, similar to Salford's Locality Plan, actively encourages person- and community-centred asset based approaches.

It is understood that social isolation can be a common challenge for people with mental health problems. The stigma associated with mental health, coupled with the fear to socialise, can result in individual's becoming isolated and lonely. Carol (2016) defined social isolation as 'an objective state determined by the quantity of social relationships and contacts between individuals, across groups and communities'. Significantly, it is acknowledged that social networks and relationships are integral to an individual wellbeing, and that isolation can cause depression, increase biophysical ailments and mortality (Holt-Lunstad et al 2010). Hence, policy makers and commissioners recognise the impact that social relations, inclusion and loneliness has on mental and physical wellbeing. Moreover, there is an increased recognition of the utility of green therapies and 'ecotherapy' for people with mental health problems in the community setting. The relationship between nature and positive benefits for humans has grown over the last 20 years and it is reported that there are a range of activities that constitute 'Green Therapy'. The most common understanding is that it can be used to promote health and well-being for people who may be vulnerable or who are socially excluded (Gullone 2000, Berget et al 2012). Subsequently there has been a steady growth in research which has measured the benefits of nature on health, in particular, 'Therapeutic Horticulture' is acknowledged to be a nature based approach which can have a positive influence on an individual's social activation (Grinde & Patil, 2009, Gonzalez et al 2010). It is now recognized that green spaces and access to vegetation have made major contributions to the quality of health and well-being in inner city and suburban areas (Morris 2003). Open-air recreation has demonstrated positive well-being effects because it provides scope for activity, relaxation

and the formation of social relationships, and as such is thought to play a significant role in people's lives (Macnaghten and Urry, 2000).

In 2007, the UK national charity 'Mind' (2013) set out a 'Green Agenda' for mental health using 'Ecotherapy' as a framework and asserted that nature based services should be a clinically valid treatment for mental health distress. Since the introduction of the Green Agenda (Mind 2013), research has consistently demonstrated the value of nature based interventions as an effective approach to support people with long term conditions (Bragg et al 2017). The use of nature based interventions within a social prescribing movement has gained in popularity and there has been an increase in the number of funders willing to support the development of nature based progamme that support people with mental health problems. However, as Hunt et al (2000) suggest, measuring the impact of the environment and green spaces on health is challenging because of the complexities associated with the holistic nature of well-being. Hence, this research has used a mixed methods approach to capture the complexities involved and evaluate the impact and use of TH within a Mental Health Recovery Programme (MHRP) on social inclusion and engagement for people with mild mental health problems.

## 1.1 Overview of the Mental Health Recovery Programme

The Salford Sustainable Community Strategy (2009 – 2024) aims to transform Salford into a healthy city. More recently, Salford's Joint Strategic Health Plan aimed to promote a healthy city that empowers the population to "Start Well, Live Well, Age Well", however, the challenge was to find means to meet the community's needs in the context of shrinking funding to public and third sector organisations. Key to this is that residents, regardless of their capability or health problems, should be well connected. In response, a number of voluntary sector organisations have evolved as part of a social enterprise movement within Salford to support community engagement and promote resilience. Garden Needs is one of the social enterprises that has been developed to support individuals and community resilience. Garden Needs is a growing space initiative within a small peaceful garden centre located on the edge of Kersal Dale in Salford that provides drop-in sessions and training for local people that focus on the activities involved in running a garden centre and conservation work within the neighbouring nature reserve.

The centre is based on a partnership project between 'Mind'© in Salford and 'Social AdVentures'© and its vision is to "to be the pioneer in connecting people with nature and inspiring them to lead healthier and happier lives". Garden Needs comprises of a polytunnel, 2 greenhouses, café/meeting area and offices and space for other alternative activities such as yoga, meditation and mindfulness. Under the guidance of the Garden Needs vision, volunteers from the local community have been working with each other and the centre staff to develop a range of growing areas. The activities at Garden Needs are suitable for local residents, but are thought to be particularly supportive for those people who may have common mental health problems, such as anxiety or depression. Through a structured programme of work, Garden Needs provides an opportunity for volunteers to develop the garden centre and undertake conservation work with the neighbouring nature reserve. A previous pilot evaluation led by the University of Salford demonstrated that Garden Needs was effective in supporting people with mental health problems to recover (Howarth et al, 2016).

Since this time, Garden Needs have developed a Mental Health Recovery Programme (MHRP) that has built on previous expertise with an aim to provide structured 'green care' through using nature based approaches such as therapeutic horticulture. The MHRP provides a simple guide to growing and enables volunteers to participate in sowing, growing and harvesting of products and builds on the existing work undertaken at Garden Needs. The MHRP utilises the 'Recovery Star' (MacKeith & Burns 2010), which is a validated data collection tool that captures the recovery progression of individuals numerically to monitor each volunteer's mental health and the social and health impact of their participation in the MHRP.

## 1.2 Project Overview.

Social Adventures commissioned a team of researchers from the School of Health and Society at the University of Salford to undertake an evaluation of the MHRP. The evaluation was undertaken over a two-year period and captured date from 11 exit interviews, 4 focus groups and 20 sets of Recovery Star data.

## 1.3 Project Objectives

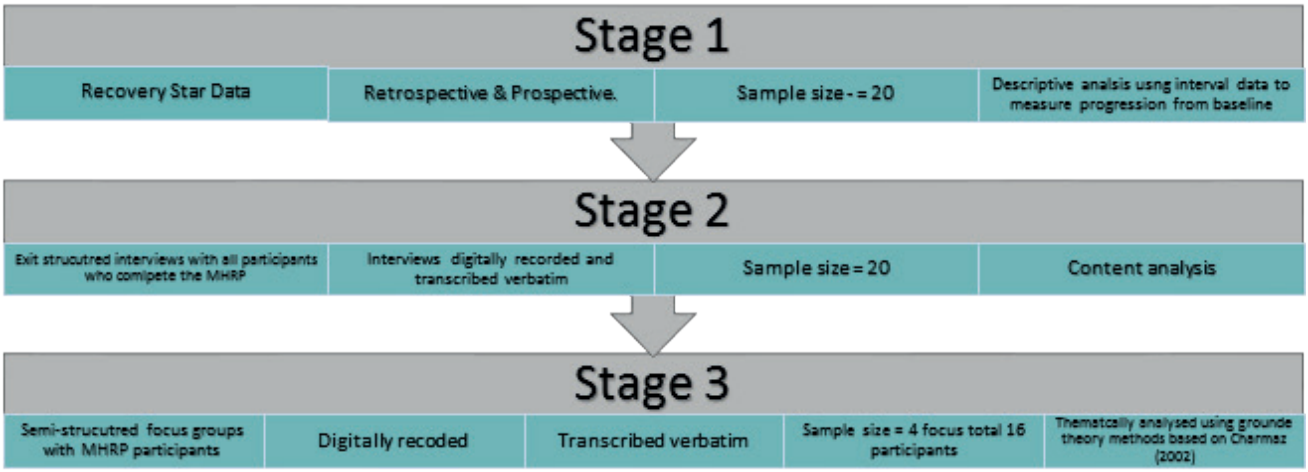
There were three key objectives, namely:

1. Quantitatively measure the impact of the MHRP on individuals using retrospective and prospective data from the validated Recovery Star data collection tool.
2. Qualitatively explore participant perceptions and experiences of the MHRP using data from exit interviews and semi-structured focus groups.
3. Triangulate qualitative and quantitative data to provide a holistic perspective of the MHRP.

## 1.4 Methodology

A mixed methods Action Research approach was used to measure the impact of the MHRP on volunteers and capture subjective data about the experience of the MHRP. The Action research approach (see figure 1) included members of Garden Needs who helped to develop the research design. This ensured that the organisation was included at the project inception and throughout the data collection and analysis phase (Huxam & Vangen 2003). Regular meetings were held with the research lead and Garden Needs to report back interim findings and adjust data collection methods accordingly. Hence, the data captured was shared with Garden Needs on a regular basis to help develop the programme or make changes were needed, ensuring that findings were meaningful. Figure 1 illustrates the research design.

**Figure 1 - Research Design.**




## 1.5 Qualitative Data Collection

Data was collected from a combination of qualitative structured exit interviews and semi-structured focus groups. In total 11 exit interviews were undertaken with participants who had completed the MHRP. Each interview was structured and lasted between 30 – 50 minutes and were digitally recorded and transcribed. Garden Needs prepared an exit interview schedule (see Table 1). A member of the research team attended each interview and recorded field notes to help with the analysis and early in the interviewing period additional questions were added in order to glean more data about the uniqueness of the project and about therapeutic horticulture (questions 8-10). After the first year a further question was added around employability (question 11).

**Table 1 - Interview Questions**

| | |
|---|---|
| 1. | How likely are you to recommend the Garden Needs service/venue to others |
| 2. | What worked best for you in Garden Needs? |
| 3. | What did not work as well?? |
| 4. | What additional services did you access through Garden Needs? |
| 5. | Have you made friends whilst at Garden Needs? |
| 6. | Have you learned new skills whilst at Garden Needs? |
| 7. | Would you be willing to share your experiences with others? |
| 8. | What makes this service different from others? |
| 9. | If you were to change anything about Garden Needs, what would it be? |
| 10. | What is it about gardening that you like? |
| 11. | To what extent has being a volunteer at Garden Needs prepared you for employment/re-entry into the workplace? |

In addition to the exit interviews, four semi-structured focus groups were conducted with participants who were still attending the MHRP. The focus groups questions were based on the responses from the exit interviews and the Recovery Star 10 key areas. The focus groups provided an opportunity to gain a more in-depth understanding of the participants experience of the MHRP. The questions included in the focus groups are listed in table 2, however, question 3 was amended and question 6 was recently include based on the exit interview feedback.

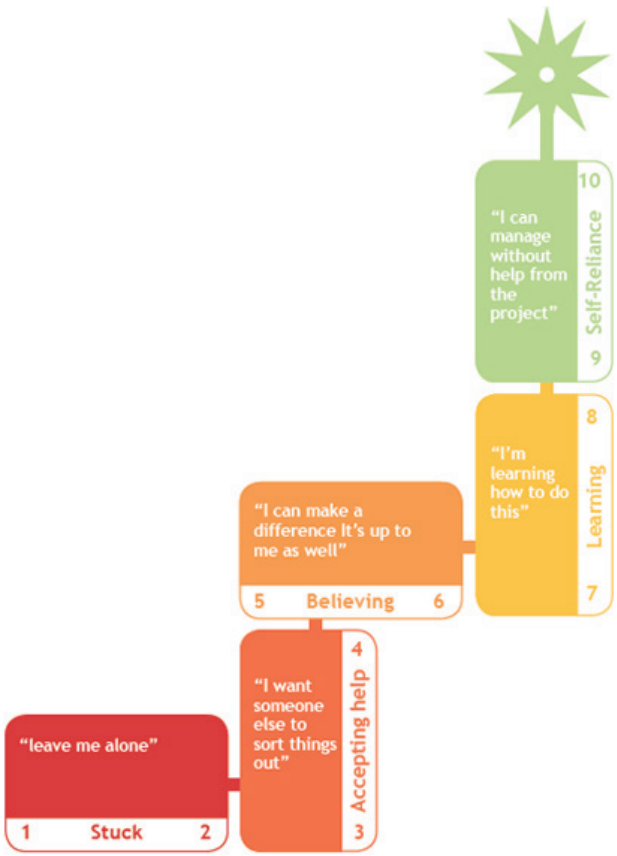
**Table 2 - Focus group Questions**

| | |
|---|---|
| 1. | How did you find out about the mental health recovery programme? |
| 2. | Why did you join the mental health recovery programme? |
| 3. | What do you feel are the benefits of the mental health recovery programme? |
| a. | Managing Mental Health |
| b. | Physical health and self-care |
| c. | Living skills |
| d. | Social networks |
| e. | Work |
| f. | Relationships |
| g. | Addictive behaviour |
| h. | Responsibilities |
| i. | Identity and self-esteem |
| j. | Trust and hope |
| 4. | How important is horticulture as part of the programme? |
| 5. | What advice would you give to others who are considering joining the mental health recovery programme? |
| 6. | Employability? |

## 1.6 Recovery Star Data Collection

The Recovery Star tool is recognised by the Department of Health (2009) for use in a range of services, including mental health. The Recovery Star uses a 'Ladder of Change' based on interval data to help staff and individuals plot their progress. It is suggested that as an outcomes tool it enables organisations to measure and assess the effectiveness of the services they deliver. One of the key features of the Outcomes Star™ is that all versions are based on an explicit model of the steps that service users take on their journey towards independence - the Ladder of Change. These models are informed by literature and were developed empirically and gives the Recovery Star coherence, rigour and credibility. The Ladder of Change' was developed by 'Triangle TM' (see Figure 2) and helps visualise an individual's progression. The Recovery Star encouraged participants to rate their progression in 10 key areas that related to their life. These included managing mental health, physical health & self-care, living skills, work, relationships, addictive behaviours, social networks, responsibility, trust & hope, and identity and self-esteem. Participants are asked to plot their scores in discussion with a facilitator and then add these on the star to provide an overall picture of their progress against the criteria ranging from 1 indicating 'leave me alone' through to 10 'I can manage without help from the project'. The data were triangulated to provide a 'helicopter perspective' of the impact of the MHRP on volunteers.

**Figure 2 - Recovery Star 'Triangle' 'Ladder of Change'™**



## 1.7 Data Analysis

### Recovery Star Analysis

Data from the completed Recovery Stars were analysed using descriptive statistics to illustrate the progression of volunteers through the Ladder of Change. The Recovery Star data was collected individually and then accumulated across the 20 participants to highlight the overall impact of the MHRP.

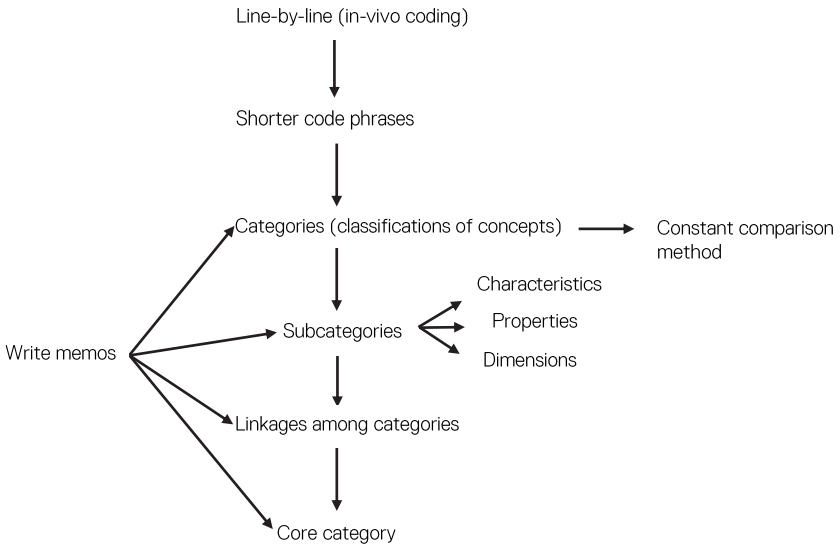
### Exit Interview Analysis

Data from the exit interviews were transcribed, coded and analysed for common experiences or elements within one interview or across several interviews (King and Horrocks, 2010). This enabled systematic identification of themes or categories across the data.

### Focus Group Analysis

Data from the qualitative semi-structured focus groups were analysed using a constant comparative analysis based on Corbin & Strauss (2008) Grounded Theory approach (see figure 3). This involved full transcription of the digitally recorded interviews, followed by line by line open coding to develop shorter codes and categories. Subcategories were developed and 'axial coding' between the interviews (and exit interviews) helped to generate meaning about the experience of the MHRP for participants.

**Figure 3 - Grounded Theory Analysis Process (Taken from Eaves 2001)**



# 2. Findings

In total, 11 exit interviews (n=11), 4 focus groups (n=16) and 20 Recovery Star data (n=20) sets were analysed. The triangulated data provided a complete picture of the impact of the MHRP social inclusion and engagement for people with mild mental health problems.

## 2.1 Recovery Star Findings

Retrospective data sets of Recovery Star information for 20 volunteers were analysed on three separate occasions using descriptive statistics to illustrate the rate and level of improvement on the Ladder of Change. There were 9 male and 11 female participants. The ages ranged from 35 years to 68 years with an average age of 53.2 years. Interestingly, 6 were retired and one was unable to work due to ill health. Full data sets were included for April and June, however, data sets from September were incomplete. A baseline for each participant has been obtained and, based on available data the final outcome measured against the baseline to provide an indication of their development on the Ladder of Change.

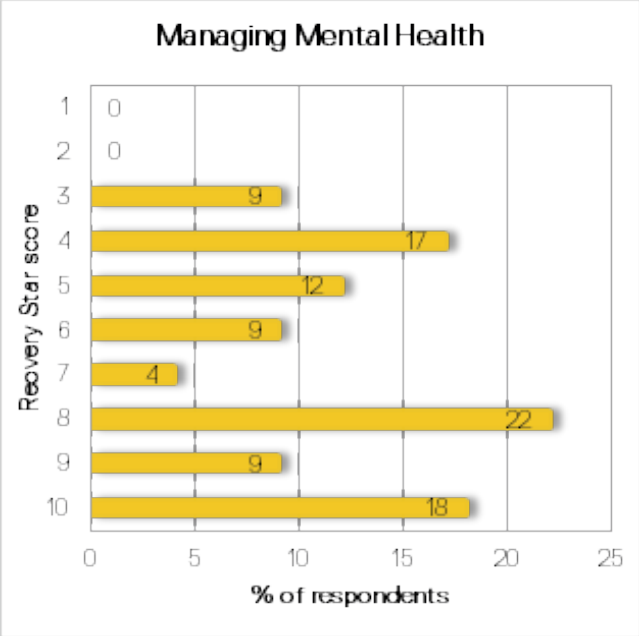
## 2.2 Breakdown of Recovery Star Scores in each area:

Recovery Star (RS) data were analysed based on the 'Ladder of Change', hence, each key area has been analysed separately for those without progression scores (where Recovery Star data has been recorded more than once).

## 2.3 Managing Mental Health:

The Recovery Star data indicated whether the participants were able to manage their mental health. At baseline, 27% of participants recorded that they were managing their mental health, and 26% reported a range between 7- 8 which indicated that they were learning how to manage their mental health. The majority of participants were learning to manage their mental health and working towards becoming self-reliant. However, just under half (47%) indicated a score of less than 6 and were actively seeking help to manage their mental health. The data suggests that the MHRP attracted people with a range of mental health problems who were at different stages of managing their mental health.

**Table 3 - Managing Mental Health**

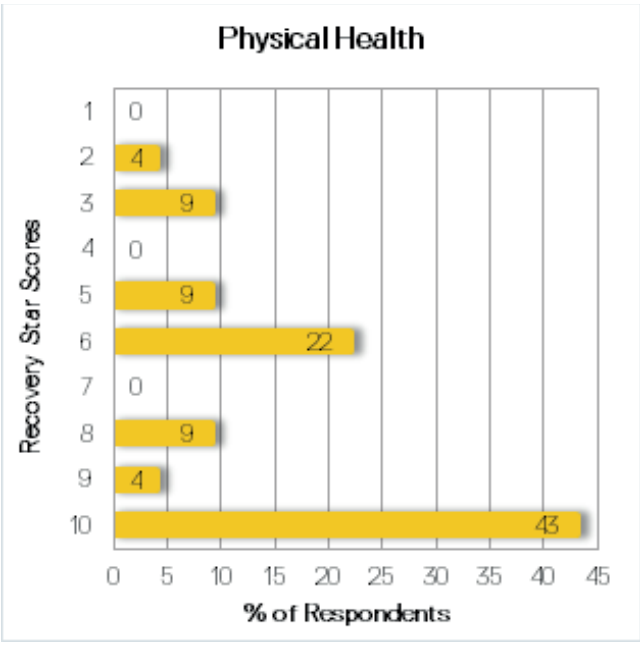



Repeated Recovery Star scores indicated that there were fewer participants who had classified themselves as being 'stuck'. There was some improvement in the mental health scores for 35% of the participants and 45% recorded similar scores to the baseline. Overall, the Recovery Star data suggests that the MHRP had enabled participants to move from seeking help to learning to manage their mental health.

## 2.4 Physical Health and Self-Care

The Recovery Star score encouraged participants to assess their physical health and ability to self-care. The data indicated that 43% of the participants were able to look after their physical health and wellbeing and scored 6 or more at baseline. Only 9% scored 7-8 which indicates that they were starting to learn to build a healthy life.

**Table 4 - Physical Health**

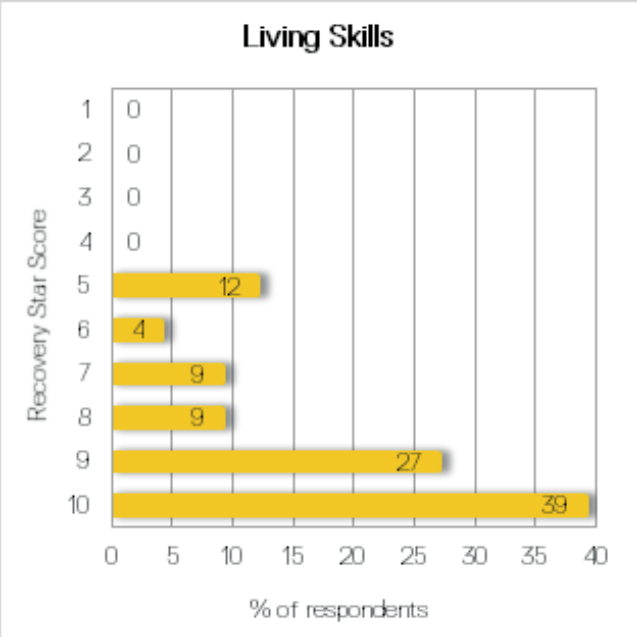



The baseline data revealed that 31% of participants wanted to take responsibility for their mental health and do things differently. A total of 9% of participants indicated that they required help and 4 % recorded that they were stuck. Overall, the data indicated that physical health was important, but the majority were managing their physical health at the baseline assessment. The second set of Recovery Star data relating to physical health revealed that 45% believed that they could develop their physical health, and 25% were now managing their physical wellbeing. These results suggest an overall improvement with less participants being stuck and more being able to manage their physical health.

## 2.5 Living skills

Living skills in the Ladder of Change refers to the ability of respondents to undertake practical activities such as cooking, shopping and managing life style. In this area, most of the participants recorded (66%) that they were self-reliant in managing living skills.

**Table 5 - Living Skills**




A further 18% indicated that they were learning these skills and the final 16% indicated that they wanted to do different skills and were willing to learn. The second set of Recovery Star data indicated no change with the baseline scores

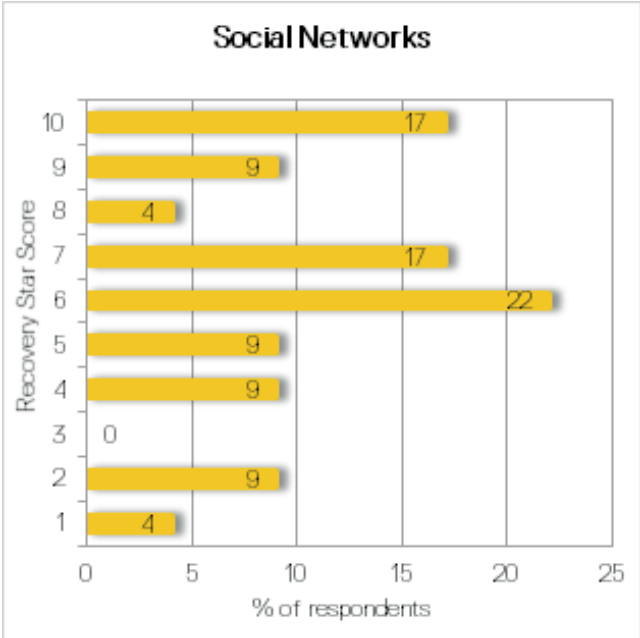
## 2.6 Work

A total of 6 respondents indicated that they had retired from work and one person did not work due to ill health. The figures on work, therefore, are based on a total sample size of 13. Significantly, out of those who did respond, the majority (76%) indicated that they needed help with work – and are possibly reliant upon support to help them manage work. This was also indicated in the qualitative focus group and exit interviews as an aspect of their life that Garden Needs had helped with. The second Recovery Star data presented a positive improvement in work and a significant rise in the scores with the majority of participants indicating they were learning to gain employment. The qualitative focus group and interview data also highlighted significant improvements with participants' ability to seek and gain employment.

## 2.7 Social Networks.

There was a diverse spread of scores in relation to social networks. The Recovery Star baseline data highlighted that 31% participants identified themselves between the Ladder of Change stages 3-4 as accepting that they needed help. This data suggests that social networks were significant, and 13% revealed that they were stuck (scores between 1 & 2). The baseline data suggested that 43% of the participants were stuck and had accepted that they needed help.

**Table 6 - Social Networks**




The qualitative data supports these findings as being connected and integrating with others was viewed as a positive outcome for participants who were interviewed. This also reflects the base line trend noted with relationships and the way in which attending the MHRP with other similar people may have been an influence and supported their relationship development. The repeat Recovery Star scores indicate a positive trend in the social networks and an overall improvement of 45%.

## 2.8 Relationships

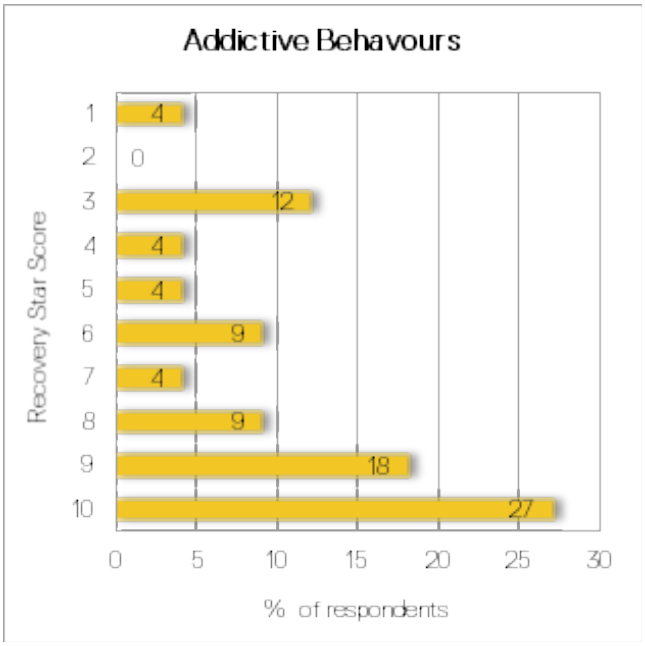
Relationships are a significant part of the mental health recovery process. Interestingly, the Recovery Star data indicated that 31% of participants felt that they were self-reliant and were able to manage relationships without support. A smaller number scored less than 6 which suggests that those people who attended Garden Needs were managing relationships, however, some may have expressed difficulties engaging with others – which is an aspect highlighted in the qualitative data. This illustrates the importance of being able to develop relationships in order to develop social networks and reduce isolation.

However, the findings were diverse between the different stages, notably, 18% of participants indicated that they had identified a need to change and wanted to work towards the next step to create the change needed. This is likely to be typical of those seeking support from Garden Needs. The second Recovery Star data set indicates that more participants recorded an improved score with their relationships. This is a significant indicator for social network development; reducing social isolation will positively influence relationships and vice versa.

## 2.9 Addictive Behaviours

The baseline Recovery Star data indicated that 45% of participants required no support managing their addictive behaviours (Ladder of Change scores 9-10). Interestingly, 55% of the scores were even distributed between stages 2 and 4 which suggests that they were able to identify the help they needed and could act accordingly to acquire support. The second set of Recovery Star scores indicated that there was no change from the original baseline score.

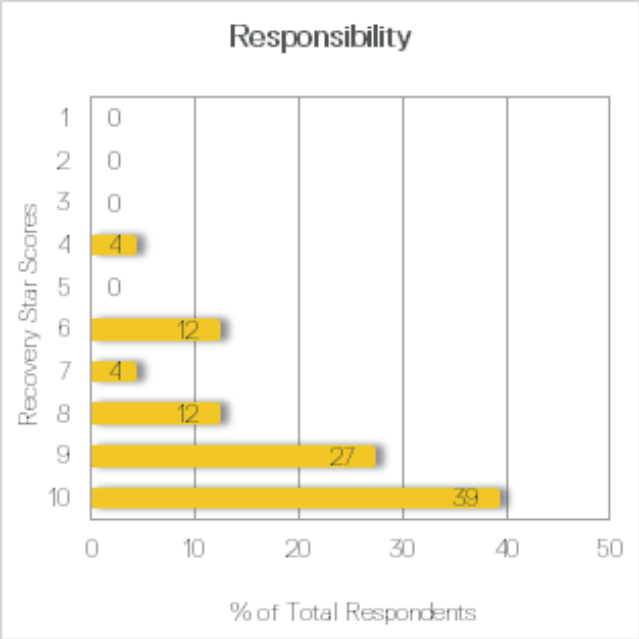
**Table 7 - Addictive Behaviours**




## 2.10 Responsibility

The baseline Recovery Star data indicated that 68% of participants reported that they were managing their responsibilities and did not require support. A smaller number of participants (16%) indicated that they were learning about responsibility and accepted that they needed some help. Similar scores were recorded within the second Recovery Star data sets which indicates that participants continued to manage responsibilities.

**Table 8 - Responsibility**




## 2.11 Identity and Self-Esteem:

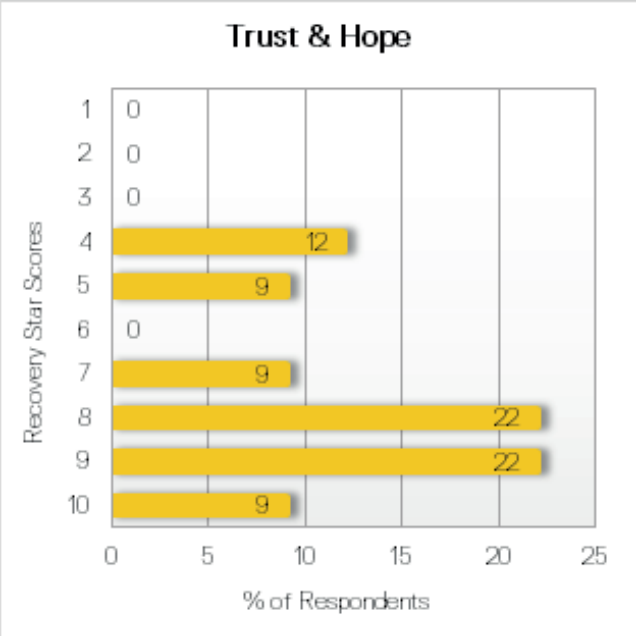
Identify is a significant aspect of recovery with mental health. It is particularly relevant as many individuals with mental ill health are stigmatised and consider themselves to be defined by their illness rather than who they are as a person. The baseline Recovery Star data illustrated that 44% of participants felt a strong sense of identity, and scored 9-10 on the Ladder of Change. Equally, the Recovery Star data suggests that 35% scored 5-8 which suggests that they were starting to believe that they could develop more self-awareness. However, 13% scored between 1-2 which indicates that some needed support with their self-esteem and identity. In addition, the second set of Recovery Star data suggested an increase in the number of participants who had scored between 1-2 on the Ladder of Change and therefore feeling 'stuck'. This latter set of data conflicts with earlier qualitative data which highlighted how attending Garden Needs enabled them to 'be themselves' because they were accepted as a person rather than someone with a mental health problem. This is significant for those people with mental health problems as they often suffer from the stigma associated with mental wellbeing, hence identity is a crucial part of the recovery process. It is not clear why there was a downward trend related to identity and self-esteem, however, extraneous variables

and extrinsic factors may have contributed to the self-reported scores.

## 2.12 Trust & Hope

Trust and hope are vital in the recovery of people with mental ill-health. For many, the concept of hope is an important goal as it provides a different path and one which may enable their development.

**Table 9 - Trust & Hope**




The Recovery Star data indicated that 44% of participants reported strengthening motivation and willingness to learn and move on. A total of 9% indicated that they were self-managing and did not rely on others to provide hope. A smaller number (12%) reported reliance on others to support their personal development. The second set of Recovery Star data remained static suggesting that there was no change and most participants were motivated. This was also indicated in the qualitative data which revealed that participants felt motivated to attend the MHRP and that the programme had provided meaning, purpose and structure to their lives.

## 2.13 Progression

A total of 20 participants used the Recovery Star to record their progression. The number of recordings ranged between 2- 6 separate occasions. The Recovery Star data was initially analysed separately and to provide a baseline of the individuals scores in relation to the Ladder of Change and 10 key areas. The second Recovery Star data set were collected from each individual and analysed cumulatively to demonstrate overall trends with the total population. The data indicates a positive trend, however, there was some changes noted in the cumulative range of the Recovery Star indicators, and whilst 30% (n=6) moved towards the score of 10 on the Ladder of Change, 60% (n=12) remained static and 10% (n=2) of scores indicated that participants had reduced scores. This may be due to the limitations of Recovery Star which is an intervention which helps participants to explore their own development and plan goals in each of the 10 areas, rather than a tool that captures causality. It is likely that the score was context bound and individuals may have attended the centre because they required support on that particular date. Hence, Recovery Star captures one event which may not reflect the reality of the individual outside of the MHRP context.

**Table 10 - Star Indicators: Managing mental health, Physical health and self-care, Living skills, Social networks, Work, Relationship, Addictive behaviour, Responsibilities, Identity & self-esteem, Trust and hope. Overall progression scores (+= more than 50%) ( - less than 50). (- =50/50). *= no of times the Recovery star was completed for each individual**

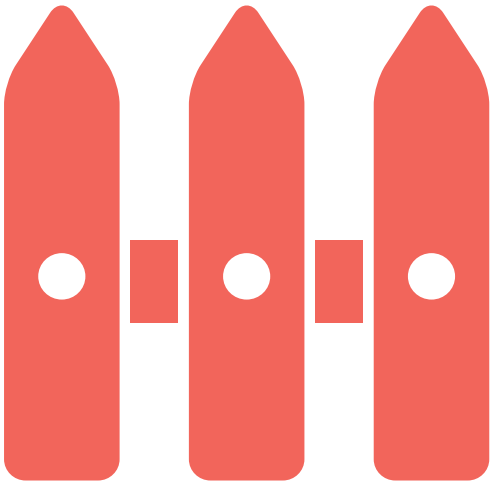
| Participant number | Score range * | No of scores | 1st Set | 2nd Set | 3rd Set | Progression Scores Comments |
|---|---|---|---|---|---|---|
| 1 | 4-10 | 3 | + | = | = | MH = PH - LS = Sn – W = Rel -AB = Res = ID – TH = |
| 2 | 1-10 | 4 | = | = | No data | Sn -, MH +, Rel = PH – LS = W 0 AB= Res = ID – TH = |
| 3 | 3-10 | 3 | = | = | No data | MH + PH – LS + SN = W = Rel + AB + Res + ID – TH |
| 4 | 4-10 | 3 | = | = | No data | MH + PH-LS+Sn=W=Rel+AB+Res+ID-TH- |
| 5 | 1-10 | 3 | = | = | No data | MH+PH-LS=SN=W=Rel-AB+Res=ID=TH+ |
| 6 | 3-8 | 5 | + | + | No data | MH+PH+LS+SN+W+Rel+AB+Res-ID+TH- |
| 7 | 1-10 | 6 | + | + | + | MH=PH=LS=SN+W+Rel+AB=Res-ID+TH+ |
| 8 | 1-10 | 4 | + | - | No data | MH-PH-LS-SN+W-Rel+AB -Res=ID -TH + |
| 9 | 1-10 | 6 | +/- | = | No data | MH=PH+LS+SN=W=Rel-AB-Res+ID=TH= |
| 10 | 2-10 | 3 | - | = | + | MH-PH+LS+SN+W+Rel+AB=Res-ID+TH= |
| 11 | 2-10 | 2 | -/+ | + | No data | MH+PH+LS=SN+W+Rel+AB=Res-ID+TH= |
| 12 | 1-10 | 4 | - | - | No data | MH-PH-LS-SN+W-AB=Res+ID-TH- |
| 13 | 4-10 | 2 | = | = | No data | MH=PH=LS=SN=W+Rel+AB=Res+ID=TH= |
| 14 | 1-10 | 2 | = | - | No data | MH-PH=LS-SN=W=Rel+AB-Res+ID-TH- |
| 15 | 1-10 | 4 | + | + | No data | MH=PH+LS=SN=W=Rel+AB+Res+ID+TH+ |
| 16 | 2-10 | 5 | - | = | + | MH+PH-LS+SN+W+Rel+AB-Res-ID+TH= |
| 17 | 7-10 | 2 | = | = | No data | MH=PH=LS=SN-W+Rel=AB-Res+ID-TH+ |
| 18 | 5-10 | 2 | - | = | No data | MH =PH-LS==W+Rel-AB=Res+ID=TH= |
| 19 | 3-10 | 3 | - | = | No data | MH=PH+LS=SN+W+Rel-AB+Res-ID-TH- |
| 20 | 4-10 | 4 | +/- | = | No data | MH=PH=LS=SN=W-Rel=AB-Res=ID=TH+ |
| | 1-10 | 25% =2<br>30% = 3<br>25% = 4<br>10% = 5<br>10% = 6 | | | | |

## 2.14 Summary of Recovery Star Data findings.

A range of Recovery Star scores were recorded that highlighted differences in the participants social networks, work, relationships and identity scores at baseline. Interestingly, more participants recorded that they felt 'stuck' with self-esteem and identity than any of the other 10 key areas. This finding was also reflected in the qualitative data which suggests that although mental health was the focus of the MHRP, many who have attended have significant problems with self-esteem. Social Networks scores appear to suggest that many of the participants needed support, which was echoed in the qualitative findings and illustrates how the MHRP can help people to reduce social isolation and improve their social connections.

Whilst the Recovery Star is a validated tool recommended for use with people who have mental ill-health, it may not be the most appropriate tool to capture the intrinsic factors that influence the successful recovery of a person with mental health. For example, there was a change of staff during the project which could have negatively impacted on the reliability of the Recovery Star scores. Equally, lack of consistency could impact on the therapeutic relationship needed for the participants to provide an accurate account of their recovery. Killaspy et al (2012) report that lack of staff continuity in the repeated ratings can render the results invalid due to issues associated with the Recover Star interrater reliability. Using Recovery Star enabled a baseline of individual scores to be obtained and provided useful information about the self-reported progression. However, Lloyd et al (2016) note that the Recovery Star is "an effective outcome tool to measure individual's changes in recovery...however, it did not provide a measure of the recovery culture of the service". Hence, utilising qualitative data from the exit interview and focus groups has provided data that can enhance our understanding of the impact of the MHRP and insight into the effectiveness of the organisation and delivery.

# 3. Qualitative Findings



In total, 11 exit interviews and four focus groups were conducted and analysed. The qualitative data from these activities are reported separately, however, the base line data emerging from the Recovery Star data reflects some of the themes emerging from the qualitative data. This triangulation of findings presents a holistic perspective of the work of Garden Needs and the MHRP. Pseudonyms have been used to preserve confidentiality and adhere to Data Protection (UK 1998) legislation.

### Exit Interview Population:

Six men and five women were interviewed and ages ranged from 23 to 63. Most participants were White British (n=9) with one person identifying as White Irish (n=1) and one as mixed race (n=1). The length of time spent volunteering with Garden Needs ranged from 4 months to 3 years.

## 3.1 Focus Groups

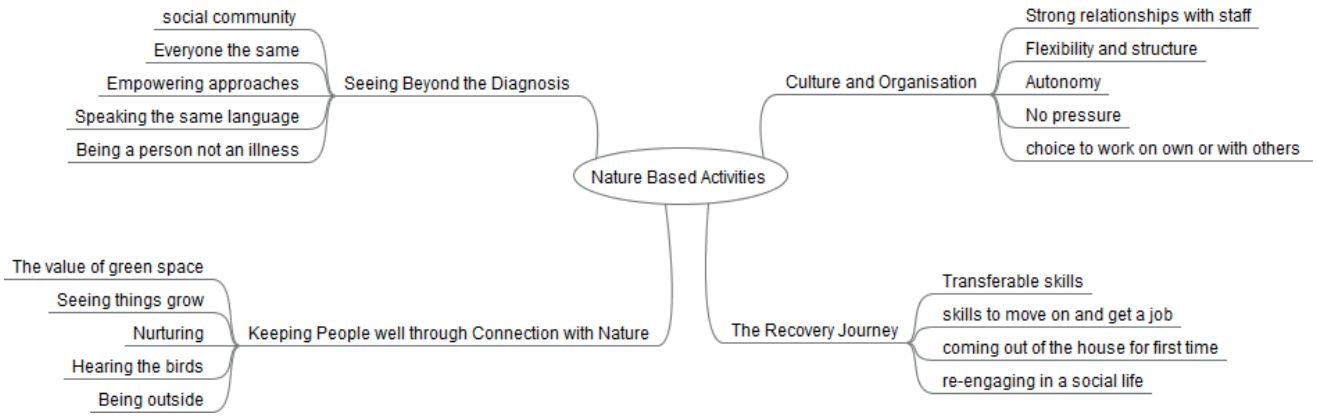
A total of 4 focus groups were conducted with 16 participants who were still attending the MHRP. Grounded Theory enabled a constant comparative analysis between the focus groups and exit interviews. As a result, some of the exit interview questions were altered to reflect the main themes emerging from the focus groups that participants thought significant. This helped to ensure that the findings from both the exit interview and the focus groups were sensitive to the participants and represented their experiences of the MHRP.

## 3.2 Triangulated Themes

The data sets from the Recovery Star, focus groups and exit interviews were methodologically triangulated. It is acknowledged that methodological triangulation uses two methods to study the same context (Mitchell, 1986) and can provide a rich perspective of the study data (Parahoos 2006). Triangulation can enhance the robustness of analysis by countering the variance in the times, people and setting in which the data were collected (Begley 1996). Triangulating the data from this study provided greater depth about the scores indicated in the Recovery Star data and helped mitigate some of the limitations with the Recovery Star data (see figure 4)

The Recovery Star data indicated that most people were managing or working towards self-reliance with their mental health, but there was a significant impact in relation to perceived self-reported impact on work, social networks and self-esteem. These findings were also supported by the qualitative data analysis which revealed that the participants developed a sense of community, structure and the ability to re-engage in life. Equally, developing a sense of identity and the potential to recover were key themes which emerged from the exit and focus group data. When triangulated, the data identified four key themes which included: 'The Recovery Journey', 'Seeing Beyond the Diagnosis', 'Keeping People Well through Connection with Nature' & 'Culture & Organisation' (see figure 4). Collectively, these themes present a holistic perspective of the experience of the MHRP at Garden Needs.

**Figure 4 - Mind Map of Triangulated Themes**




## The Recovery Journey

The recovery journey was influenced by the participant's ability to develop new skills to help with future employment, move on, and/or getting a new job. This was predicated on participants being able to re-engage in a social life and the focus groups and exit interview data highlighted that participants felt they were developing skills that would assist them in gaining employability, if this is what they were looking to achieve. There was also a sense of gaining confidence which is summed up by one of the participants -

> "my confidence is ecstatic, the more I work, the more my confidence grows". (individual interviewee no2)

The need to re-engage in social activity is often difficult for people with mental health difficulties, and attending GN helps individuals reconnect -

> "this is far better mental health...I still take medication cos we've got to, without it I'm just gone. So this is the best medicine because it's like here I don't, I'm not in that world out there. (focus group 4, respondent no1)

> "what worked for me? Getting involved really. Helping others out. I seem to know a bit myself like what I could show other people how they run it" (individual interviewee no6)

> "..and it was, because I had been isolated and not been going out, I had been socialising a bit but not talking to new people. I mean in terms of building up my confidence that really helped different people, having a reason to travel on public transport, getting used to travelling on public transport, all that, you know built up your confidence, even though you don't realise it at the time. And it was regular as well. I think I came every Thursday. So it gave some structure to my life, so every Thursday I'd come at the same time" (individual interviewee no9)

> R:What are you doing right now then? Are you working? P:"I am yeah. I am now working at the *****" (individual Interviewee no11).....as a community champion"

Although some of the participants were retired through medical reasons, there were approximately four participants who had gained meaningful employment as a result of attending GN. The quote above illustrates one person who talked about this in the interview. Re-engaging with others indicated a growth in confidence which enabled participants to re-engage outside of the GN context. Significantly, the confidence instilled as a result of the MHRP and staff involved enabled some participants to seek employment and develop transferable skills that could be used to enhance their employability.

## Seeing beyond the diagnosis

In addition to skill-building and greater employability, participants articulated a social benefit in volunteering at GN. The use of therapeutic horticulture as a person centred approach enabled participants to be seen as individuals rather than someone with a mental health problem. This social benefit was clearly felt to arise from the welcoming environment and encouraged a sense of belonging and community:

> "Everyone who walks through the door, always made welcome from staff. To people who walk in, such as me, it was good." (individual interviewee no1)

Moreover, participants felt that the ability to meet people with similar histories and experiences, helped them to easily connect with other volunteers and that there was a shared understanding, not a pathologising focus on their mental health diagnosis.

> "I think when you share that level of pain with other people, you do have a connection". (individual interviewee no6)

> "I think people who come here, it's confidential why they come here but I think we all, we're like peas in a pod. We can just be open and frank, can't we?" (focus group 4, respondent no1)

This participant reflected on how volunteering at GN helped her to feel empowered and how the value of this was tied to a range of factors (people, place and ethos):

> "It was knowing at a time of great loneliness and a massive lack of confidence and a feeling of great rejection from colleagues who were no longer speaking to me because they didn't know what was going on, that coming to somewhere like this and particularly you, [GN staff member], were so welcoming and non-judgmental and knowing that there was a range of people here with a range of different mental health issues. But also, I didn't know anybody and it was some distance from where I lived. I think that helps. And the whole idea of being outside and you could either do something in the garden or you could sit inside or you could go and sit on your own, there was no pressure at all. So, it was a combination of all of that." (individual interviewee no7)

Many of the focus group participants valued the time spent with others as they had experienced social isolation mainly due to the stigma associated with mental health and the effect of their mental health on their ability to socialise. The use of nature based activities promoted both an individual and collective improvement to social skills as participants felt comfortable to work with others on projects that brought people together. Therapeutic horticulture provided a neutral base from which individuals could work in groups or individually. Significantly, the mental health diagnosis was not seen as important, participants were treated as individuals and volunteers perceived each other as colleagues. Working as a 'volunteer' helped this process as it diluted the concept of the person as a 'service user' or someone reliant upon others.

## Keeping People Well Through Connection with Nature

For many, being outside in the open air helped them to re-connect with nature and appreciate the environment in terms of its wildlife and capacity to nurture living things. The use of therapeutic horticulture as a method to support people to reengage was influenced by being outside and within green space. The environment in particular was thought by the participants to be a place where they could see things grow, hear the birds sing, work in the open air and choose their preferred nature based activities. The following experts illustrate these points:

> "Because it's very spiritual. You know, you get to see the birds, you get to hear the birds, you get to interact with people outdoors that you would never do indoors" (individual interviewee no2)

The ability to become focused through gardening was an aspect of the work that the participants enjoyed and valued, as individual interviewee no5 highlights:

> "I think it [gardening] just, it puts you in a state where it's just enough to stop you from having thoughts about this, that and the other, and you're focused and what you focused on isn't that important, that you're going to get really nervous about it. So yeah, I really enjoyed it"

Significantly, the focus group and exit interview data indicated that working outdoors with nature provided a common goal which helped to forge relationships and facilitate social connection with others:

> "I think it [gardening] just, it puts you in a state where it's just enough to stop you from having thoughts about this, that and the other, and you're focused and what you focused on isn't that important, that you're going to get really nervous about it. So yeah, I really enjoyed it" (individual interviewee no4)

Dual processes influenced the participants: on one level, they were happy to be outside to reconnect with nature, and on another, the work with nature such as gardening, using hands and getting dirty appeared to influence the participants state of wellbeing.

## Culture & Organisation

The team at GN were considered to be friendly, welcoming and, importantly, non-judgemental, which provided the participants with confidence. The findings suggested that participants believed that the staff and service culture and organisation provided a safe and secure setting that reassured people when attending garden needs.

> "I think this place...well, I know that this...that Garden Needs saved my life", (individual interviewee no3)

> "because anybody that comes through that front door of this place is made welcome, dealt with in a sympathetic manner, made to feel human again" (individual interviewee no3)

Moreover, the informality of the service was commonly highlighted by the participants as an approach that facilitated a welcoming and non-judgemental environment:

> "it was very easy going...I've volunteered at other places for mental health which were more office based. And even... and I think in an office based environment, even for a charity it can be more formal." (individual interviewee no10)

The participants reported that they were not being rushed into taking part or being told what to do.

> "I mean I like the company, we all get on relatively good enough and you're able to do things at your own pace" (individual interviewee no6)

The structured, but flexible skills menu offered as part of the MHRP allowed the participants a degree of autonomy through the ability to choose which nature based activities they wanted to be involved with. The findings indicated that staff and volunteers allowed people to select their own work activities and hence provided an autonomous approach to work load allocation. A real sense of allowing people to 'just be', rather than pushing them into involvement. The participants highlighted that the culture of the organisations was humanistic and staff appeared to understand individual's needs.

# 4. Discussion

This project sought to evaluate the impact and use of TH within a Mental Health Recovery Programme (MHRP) on social inclusion and engagement for people with mild mental health problems. Using a mixed methods approach provided an opportunity to understand the experiences of those who attended the MHRP and their subsequent progression in managing their mental wellbeing. The combined data demonstrated that the MHRP helped to reduce social isolation by improving confidence, skills and providing a place for likeminded people to meet. The use of therapeutic horticulture as a method to engage people acted as a conduit and empowered participants to develop new skills and establish relationships with others through a common purpose.

The four themes combined with the Recovery Star data suggest that using nature based activities within a Mental Health Recovery Programme supported people with mild to moderate mental health problems reduce social isolation and as a result, enabled their recovery. There was some conflict between the Recovery Star data and the qualitative date, because of the limitations of using Recovery Star as an outcomes tool in research. However, for the majority of participants, the MHRP was effective because it enabled social inclusion and supported the acquisition of transferable skills.

## 4.1 Social Return on Investment (SROI) Potential

Holt-Lunstad's (2010) review of social relationships and mortality risks identified that people who lack social connections are at higher risk of negative health outcomes For example, Holts reports that social isolation is comparable to smoking 15 cigarettes a day. Moreover, Holt-Lunstand's findings revealed that loneliness care increase likelihood of mortality by 26% in the older population. Investing in nature based approaches such as Garden Needs could ultimately provide a return on social investment that may not have been captured here, but should be considered. Return on Social Investment provides a framework within which social activities can be evaluated against the health care costs associated with long terms conditions such as mental health. According to the Social Fund report (2015) people who are socially isolated are 1.8 times more likely to visit their GP, and 1.6 times more likely to visit Accident and Emergency. Utilising alternative approaches such as nature based activities could help reduce social isolation and prevent future hospital attendance. Against this backdrop, it is realistic to assert that using nature based approaches such as the MHRP could help to reduce social isolation and ultimately influence longer term effects and impact on services.

There are very few economic evaluations that use SROI frameworks, however, those that have been undertaken have reported that social prescribing can influence a reduction in Accident and emergency attendances,

outpatient appointments and inpatient admission by 20-21%. According to Dayson et al (2016), this equates to potential cost savings of £1.98 for every £1 invested. The findings from this study indicate that the nature based MHRP provided person centred approaches that built on individual assets that helped support individual resilience and move towards recovery. As such, the MHRP fits with the concept of social prescribing and could be used as an approach for link workers, GPs and other professions to refer people with mental health problems to a range of nature based opportunities. Arguably, other potential for SROI as a result of participants ability to seek employment is a significant benefit that future research should consider. Unemployment can negatively affect an individual self-esteem and impact community economies. Although paid employment was not a goal for most participants, in this study, participants did report increased confidence with social skills which provided the participants with a choice and enhanced autonomous decision making. The MHRP provided participants with transferable skills and in some cases, empowered participants to seek employment. The impact of developing skills to aid employment is a recognised could contribute to State savings through welfare and criminal justice savings and through increased tax receipts (Princes Trust 2015).

## 4.2 Mental Health – Person Centred Approaches

The findings from this study emphasise the person centred approach to care and data collected from participants in the MHRP highlight the therapeutic benefits of the GN 'philosophy'. The relaxed and considered approach allows individuals time and space, without any pressure, yet affords the support and social contact if needed. Participants reported that they felt respected, and were empowered to make autonomous decisions. The flexible approach used, helped participants to develop confidence, and encouraged relationships to be developed with a mutual understanding of health and illness. Person centred approaches are recognised as being effective in empowering people to regain independence. As far back as 1952 the nurse theorist Hildegard Peplau highlighted the significance of person centred approaches to care. In her seminal work, Peplau stated that "we have no real interest in people's diseases or their health for that matter; nurses are interested in people's relationships with their illness or with their health". Moreover, Ford & McCormack (2000) state that the preservation of autonomy relies on an individual being capable and free to make rational choices. The structured yet flexible approached used in the MHRP enabled the participants to select from a list of activities, hence promoting autonomy and enabling participants to select an activity that best reflected their mood, thoughts, or general health that day.

## 4.3 Asset Building

Some of the key findings suggest that the person-centred approaches used within the MHRP built on and helped develop the strengths of individuals. Recognition of their skills and talents, empowered many of the participants to re-engage with others, and in doing so, built confidence and reduced social isolation. The exit interview and focus group data demonstrated the psychological and social value gained from volunteering for GN. Specifically, in terms of the interventions offered by GN (gardening, construction, team work, cooking) it was evident that these were particularly critical in helping volunteers to develop and increase their social capital; both collectively and individually. Each intervention acted as a mechanism to enable people to build confidence, share skills and strengths, enhance resilience and enabling people to feel empowered. As such, the way in which GN is structured and operates incorporates many of the tenets of an asset-based approach from which participants reported to benefit in numerous ways (IDeA, 2010).

Asset-based approaches involve mobilising the skills and knowledge of individuals, and also the connections and resources within communities and organisations, rather than focusing on deficits (NHS Health Scotland, 2011). The design and delivery of the MHRP sessions clearly instilled the principles of an asset-based model (of mutual support, coping, health and well-being improvement) (IDeA, 2010) and this approach to delivery enabled volunteers to have choice in their activities, working alone or within a group, but also towards a shared goal.

An asset-based approach aims to empower individuals, enabling them to be more independent and rely less on public services, which was a particular finding of this evaluation as some individuals reported to have used the skills, knowledge and confidence gained from volunteering at GN to move to other volunteering opportunities or paid employment. Fundamentally, however, prior to this, volunteers expressed how being a volunteer gave them a purpose and structure to their daily life. As such, it helped them to re-engage with life, meet new people and communities, sometimes developing friendships, but most certainly resulting in a reduction in social exclusion and isolation.

## 4.4 Growing Resilience: Recovery, Wellbeing

Resilience in mental health is widely recognised as a therapeutic concept, and the promotion of wellbeing is important in this area. Recovery refers to the individual being in control of their life and asset based approach dovetailed with a recovery approach which suggested that professionals are "on tap, not on top" (Shepherd et al, 2008). The person centred and holistic approach were a perceived strength that empowered individuals, inspired confidence and influenced resilience. The 'Five Ways to

Wellbeing' advocated and used by a number of nature based services (New Economics Foundation 2008) aims to connect, take notice, give, learn and be active, garden needs meets these areas in all aspects of its work. Specifically, contact with nature is understood to impacts on mental health and wellbeing, social connectedness, volunteering, physical activity, and changing people's relationship with nature and food grown, achieving many public health objectives within one space. Moreover, the way in which people contact with nature through therapeutic horticulture can instil confidence to work with others and reconnect with society. Offering hope, empowerment and a holistic person centred approach the service aligns itself with the recovery approach to mental health and wellbeing (National Institute for Mental Health in England (NIMHE) 2005). The findings indicated that the MHRP facilitated recovering a life that has meaning and is meaningful to the people who use the service (Shepherd et al, 2008), offering hope and a sense of connectedness both to nature and other people.

## 4.5 Social Prescribing

The findings from this study suggest that using therapeutic horticulture within the MHRP can improve wellbeing and improve mental health. Increasingly, the benefit of therapeutic horticulture are being recognised and the use of nature based activities such as those used in the MHRP have been growing in momentum over the past 4 -5 years as an intervention that can be used within a social prescribing context. Social prescribing is an approach that uses a 'non-medical' model that provides a range of approaches to connect people to community assets (University of Westminster 2017.) Social prescribing options are available to healthcare professionals when a person has needs that are related to socioeconomic and psychosocial and has been identified within the General Practice Forward Review as a significant 'high impact action' (University of Westminster, 2017).

Social prescribing is primarily directed for people with long-term conditions and is a person centred, community based approach because it is thought to harnesses assets within the voluntary and community sectors to improve and encourage self-care and facilitate health-creating communities (University of Westminster 2017). In this study, people were referred by a range of professionals including link workers, social workers, GPs and some self-referrals. Hence social prescribing is considered to be an alternative approach that promotes partnership and interagency working (South et al 2008). Subsequently, social prescribing can help improve support for communities and individuals to improve health and wellbeing (Bickerdike et al 2017). Examples of social prescribing involve arts based therapies, animal assisted therapy, 'green gyms' and a range of nature based activities such as therapeutic horticulture. Hence, it is understood that Green Care could offer asset-based approaches to provide services that could be used as a social prescription which uses non-medical approaches to connect people to non-clinical support and can improve quality of life. (University of Westminster 2017).

# 5. Conclusions and Recommendations

The findings from this project indicate that using Therapeutic Horticulture within the MHRP at Garden Needs has supported the recovery of participants and enabled them to reconnect with others through nature. The combination of therapeutic horticulture with the social aspects of being with likeminded people provided an environment in which participants flourished. The flexible, yet structured approach also helps individuals to regain structure in their lives particularly useful for those who have been out of employment or for whom their mental health condition has meant that they have lived a very isolated life. The person centred and respectful approach meant that volunteers felt that they were treated as individuals, encouraged to join in but were left alone when they needed. Significantly, people who attended the MHRP were treated as 'volunteers' and not as 'service users' which was reflected in the ways in which people felt that they contributed to a community and projects. People were valued for what they could do and for their contribution rather than being defined by their diagnosis and what they could not do. The MHRP provided a person centred, asset-based, nature based approach that can effectively reduce isolation and empower an individual's recovery.

## Recommendations

The evaluation suggests that the MHRP was effective in supporting recovery by reducing social isolation and building on existing assets. There are four key recommendations that have been developed as a result.

1. The impact of nature based activities such as therapeutic horticulture, can be observed in a range of significant outcomes related to recovery. These varied from increased wellbeing generally (regaining self-confidence and self-respect) to better mental health, to skill development and employability. Nature based activities should be promoted as an evidence based intervention within a social prescribing framework.

2. There is a need to ensure that appropriate scoring tools are used to capture the impact of nature based activities on a person's health and wellbeing. Recovery Star is an excellent and validated tool for key workers to use to establish a therapeutic relationship and capture self-reported progression, but data obtained may be challenging to use to demonstrate effectiveness. Future research should include a combination of methods and consider alongside other validated tools that measure mental health progression.

3. The recovery of an individual with mental health problems can be complex and made challenging due to the number of confounding variables that could influence a person's recovery. Developing a therapeutic relationship that supports the ongoing assessment and evaluation of the individuals' progress is significant. There is a need to ensure consistency of staff involved with individual volunteers.

4. People with mental health problems need to feel secure and have a sense of ownership and belonging. Communication is therefore important in times of change. Staff changes/ changes to the physical environment (i.e. forest schools etc) needs communicating early on in a clear manner so as not to disrupt volunteers sense of community, ownership and belonging.

# References:


Begley, C. M. (1996). Using triangulation in nursing research. Journal of Advanced Nursing, 24(1), 122-128.

Berget, B., Lidfors, L., Palsdottir, A., Soini, K., & Thodberg, T. (2012) Green Care in the Nordic Countries- A Research Field in Progress. Report from the Nordic Research Workshop on Green Care in Trondheim. Health UMB, Norwegian University of Life Sciences.

Bickerdike, L,. Booth, A., Wilson, P. M., Farley, K. And Wight, K. (2017) Social Prescribing: Less Rhetoric And More Reality. A Systematic Review Of The Evidence, Bmj Open, 7 (4): 1-17

Bragg, R. & Leck, C. 2017. Good Practice In Social Prescribing For Mental Health: The Role Of Nature-Based Interventions, York, Natural England.

Corbin ,J, & Strauss, A. (2008) Basics of Qualitative Research 3e. Sage Publications London.

Dayson, C., Bashir, N., Bennett, E., & Sanderson, E. (2016). The Rotherham Social Prescribing Service for People with Long-Term Health Conditions Annual Evaluation Report. Retrieved from http://www4.shu.ac.uk/research/cresr/ sites/shu.ac.uk/files/rotherham-social-prescribing-annual-eval-report-2016_7.pdf

Department of Health (2007) Putting People First: A Shared Vision and Commitment to the Transformation of Adult Social Care Services. Department of Health; London.

Department of Health, (2009). New Horizons. A Shared Vision for Mental Health. HM Government

Eaves, YD (2001) A synthesis technique for grounded theory data analysis. Journal of Advanced Nursing 35(5), 654-663.

Holt-Lunstad, J, Smith TB, Layton JB. (2010) "Social Relationships and Mortality Risk: A Meta-Analytic Review" PLoS Med 7(7).

Huxham, C., Vangen, S (2003) Researching Organisational Practice Through Action Research: Case Studies and Design Choices. Organizational Research Methods, 6, 383.

Ford P, & McCormack B. (2000) Future directions for gerontology: a nursing perspective. Nurse Education Today, 20, 398-394.

Gonzalez, M. T., Hartig, T., Patil, G., Martinsen, E., & Kirkevold. (2010) Therapeutic horticulture in clinical depression: A Prospective study. Research and Theory for Nursing Practice. 23, 312-328.

Grant, C.(2016) Loneliness and social isolation in older people. s.l.: The Local Democracy Think Tank.

Greater Manchester Health and Social Care Partnership. (2017). Greater Manchester Population Health Plan 2017-2021. Retrieved from http://www.gmhsc.org.uk/assets/GM-Population-Health-Plan-Full-Plan.pdf

Grinde, B., & Patil, G. (2009) Biophilia: Does visual contact with nature impact in health and well-being? International Journal Environmental Research in Public Health. 6, 2332-2343.

Gullone, E. (2000) 'The biophilia hypothesis and life in the 21st century: increasing mental health or increasing pathology?' Journal of Happiness Studies1 pp 293 –321

Howarth, M., Withnell, N., & McQuarrie, C. (2016) The Influence of therapeutic horticulture on social integration. Journal of Public Mental Health. 15: 3, pp 136-140.

Hunt, R, Falce, C, Crombie, H, Morton, S, & Walton, E. (2000) Health Update -Environment and Health: Air Pollution. Health Education Authority; London

IDeA (2010) A glass half-full: how an asset approach can improve community health and well-being. London: Improvement and Development Agency.

Killaspy, H., White, S. and King, M. (2012) Psychometric properties of the Mental Health Recovery Star, British Journal of Psychiatry, 201: 65- 70

King H., Horrocks, C. (2010) Interviews in Qualitative Research. Sage Publications: London.

Lloyd, C., Williams PL., Machingura T., & Tse S (2016) A focus on recovery: using the Mental Health Recovery Star as an outcome measure, Advances in Mental Health, 14:1, 57-64.

Macnaghten, P, & Urry, J. (2000) 'Bodies in the woods', Body and Society 6 (3 - 4) pp. 166 - 182.

MacKeith J, Burns S (2010) The Recovery Star: Organisation Guide (Second Edition). Mental Health Providers Forum.

Maheswaran, R. (2010) The health benefits of urban green spaces: A review of the evidence. Journal of Public Health. 33(2) 212-222.

Mind (2013) Ecotherapy Works [Online] Available At: Https://Www.Mind.Org.Uk/About-Us/Our-Policy-Work/Ecotherapy/ [Accessed 22 August 2017]

Mitchell, E. S. (1986). Multiple triangulation: A methodology for nursing science. . Advances in Nursing Science, 8(3), 18-26.

Morris, N. (2003) OPEN space: the research centre for inclusive access to outdoor environments. Edinburgh College of Art and Heriot-Watt University.

Murali, V., & Oyebode, F. (2004) Poverty, social inequality and mental health. Advances in Psychiatric Treatment. vol. 10, 216–224.

National Institute for Mental Health in England (2005) NIMHE Guiding Statement on Recovery. DOH, London.

New Economics Foundation (2008) Five Ways to Wellbeing. NEF, London.

NHS Health Scotland (2011) Asset-based approaches to health improvement. http://www.healthscotland.com/uploads/documents/17101-assetBasedApproachestoHealthImprovementBriefing.pdf

Parahoo ,K. (2006) Nursing Research. Principles, Process and Issues. 2nd Edition. Palgrave, Macmillan. Basingstoke.

Peplau HE .(1952) Interpersonal Relations in Nursing. A Conceptual Frame of Reference for Psychodynamic Nursing. Macmillan Education Ltd. London.

Salford PCT NHS Foundation Trust. (2009) Salford Public Health Sustainable Community Strategy (2009-2024). Salford PCT NHS Foundation Trust.

Shepherd, S; Boardman, J and Slade M (2008) Making Recovery a Reality. Sainsbury Centre for Mental Health, London.

Social Fund (2015) Investigating To Tackle Loneliness; A Discussion Paper. Social Impact Bonds. Cabinet Office. Nesta.

South J., Higgin, T.J., Woodall, J., White S., M., (2008) Can social prescribing provide the missing link? Primary Health Care Research & Development 9: 310–318

The Cycle of Change is credited to Prochaska and DiClemente, C. C. (1982) Transtheoretical Therapy: Towards a more integrative model of change Psychotherapy: Therapy, Research and Practice, Vol. 19 pp 276-88.

The Princes Trust (2011) Creating Impact in Communities. NEF Consultancy.

UK Parliament (1998) Data Protection Act. HMSO. London.

University of Westminster (2017) Making Sense of Social Prescribing. University of Westminster. London

World Health Organisation (2001) World Health Report. World Health Organisation; Geneva.

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