

A qualitative exploration of a UK, nature-based social prescribing scheme; The service user perspective

La confianza de los adultos turcos en la atención médica basada en inteligencia artificial

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Abstract

Social prescribing schemes are growing in the UK. Evidence in support of nature-based social prescribing referrals, a specific sub-set of social prescribing, is mounting, however there are several challenges to capturing impact. Many evaluations have focused on health improvement to gauge impact. The service user perspective is critical to understanding the wider value and warrants continued exploration. Potential for participant insights to identify 'active ingredients' of schemes could inform the development of future frameworks designed to understand best practice, ensure efficient use of NHS funds, resource allocation and reduce the burden on primary care. Thus, this study aimed to understand the value of nature-based social prescribing schemes from the service user perspective. Three focus group discussions (n=22) and 17 one-to-one interviews were conducted (59% male participants). The thematic analysis generated three themes: 'Community', 'nature connection and exposure' and 'ripple effects'; which highlighted the value of participation. Nature-based social prescribing schemes benefit participants in a multitude of ways. They help provide a safe and supported place to develop personal identity and social skills which are vital for social connection and a sense of purpose. Nature exposure and connection afforded was important in facilitating these benefits. Specific features of the local scheme studied also highlighted the critical importance third sector staff play in delivering services to those facing deprivation, unemployment and or poor wellbeing. The relationships between scheme leaders and service users created opportunities to develop skills, and self-confidence which created ripple effects that extended beyond the immediate setting.

Key words: Nature-based social prescribing (NBSP), social prescribing, wellbeing, community health

Resumen

Los esquemas de prescripción social están creciendo en el Reino Unido. La evidencia que apoya las propuestas de prescripción social basada en la naturaleza, un subconjunto específico de la prescripción social, está aumentando; sin embargo, existen varios desafíos para capturar su impacto. Muchas evaluaciones se han centrado en la mejora de la salud para medir el impacto. La perspectiva del usuario del servicio es fundamental para comprender su valor más amplio y justifica una exploración continua. El aporte potencial implícito en las perspectivas de los participantes para identificar los "ingredientes activos" de estos esquemas podría informar el desarrollo de futuros marcos diseñados para comprender las mejores prácticas, garantizar el uso eficiente de los fondos del NHS, la asignación de recursos y reducir la carga en la atención primaria. Por lo tanto, este estudio tuvo como objetivo comprender el valor de los esquemas de prescripción social situados en la naturaleza desde la perspectiva del usuario del servicio. Se realizaron tres discusiones con grupos focales (n = 22) y 17 entrevistas individuales (59% de participantes varones). El análisis temático generó tres temas: "Comunidad", "conexión y exposición a la naturaleza" y "efecto dominó"; que resaltaron el valor de la participación. Los esquemas de prescripción social situados en la naturaleza benefician a los participantes de múltiples maneras. Proporcionan un espacio seguro y con apoyo para desarrollar la identidad personal y habilidades sociales, vitales para la conexión social y un sentido de propósito. La exposición y la conexión con la naturaleza fueron importantes para facilitar estos beneficios. Las características específicas del programa local estudiado también destacaron la importancia crucial que desempeña el personal del sector no gubernamental en la prestación de servicios a quienes enfrentan privaciones, desempleo o un bienestar deficiente. Las relaciones entre los líderes del programa y los usuarios del servicio generaron oportunidades para desarrollar habilidades y confianza en sí mismos, lo que generó un efecto dominó que se extendió más allá del entorno inmediato.

Palabras clave: Prescripción social basada en la naturaleza (NBSP), prescripción social, bienestar, salud comunitaria



Introduction

Population health needs are changing with an increasing prevalence of long-term health conditions. Social prescribing offers the potential to improve health outcomes and reduce health inequalities and is seen as key to creating a more sustainable healthcare environment¹.

Social Prescribing is a person-centred approach. Individual values and preferences are identified through conversations with link workers before onward signposting or referral into third and voluntary sector schemes within the local community^{2,3}. The health and wellbeing focus aims to foster positive approaches which keep people well and prevent ill health, including supporting people living with long term conditions and/or poor mental health. Social prescribing encompasses a wide range of different activities including creative (arts based) or nature-based referrals, exercise and lifestyle referrals, education programmes, befriending support and welfare services⁴.

Nature based social prescribing (NBSP) supports people to spend time in natural environments and develop a connection to nature whilst building skills and being part of a community. NBSP together with participation in arts to improve health, forms part of the National Centre for Creative Health's definition of creative health⁵. Creative health can help develop clinical practice in terms of person-centred care, complexity and understanding the human dimension⁶. There is also well-established evidence demonstrating that exposure to nature benefits health and wellbeing⁷⁻⁹.

Several recent systematic reviews report positive outcomes specifically associated with NBSP¹⁰⁻¹⁵, including improvements in physical and mental health¹⁶⁻²² when delivered alongside traditional approaches¹³, improved social inclusion and reduced loneliness¹⁴. A review of group-based NBSP showed natural elements cultivated connectedness and belonging²³. Leavell et al. summarised value for 'unlikely' green space users and high-risk populations²⁴.

Social prescribing shows improvements in measurable activation level and self-efficacy²⁵, enabling patients to become more self-reliant at managing their own health with better health outcomes as well as a reduction in GP visits. Economic benefits arise from a reduction in health service usage^{16,21}. For example, in individuals offered social prescribing, a 28% reduction in GP appointments in England and 25% reduction in Wales was observed²⁶.

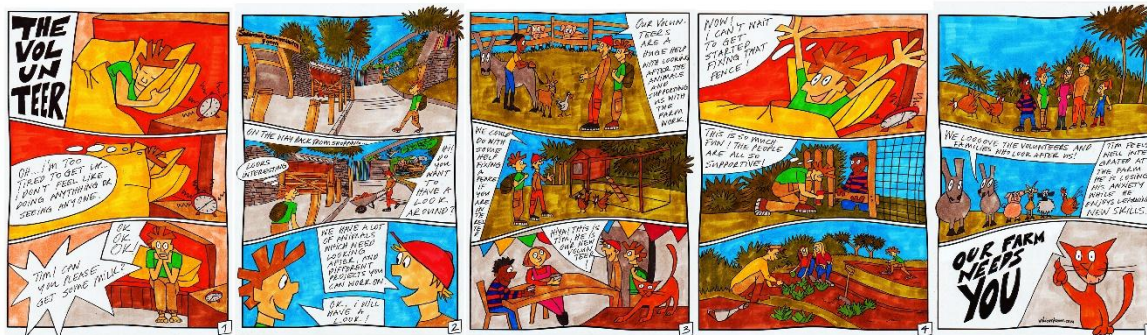
It is crucial that evaluation is central to any health intervention or health promotion programme and NBSP schemes are no exception. Robust evaluation, which includes a variety of assessment approaches, is essential to ensure the effective delivery of programmes to patients and the public.

While the evidence continues to grow, there is a need for additional research which explores the impact of NBSP schemes²⁷. Several systematic reviews have highlighted shortcomings in the evidence²⁸⁻³¹, noting methodological limitations such as, low quality of evidence, limited or no RCTs, short follow-ups, variation in schemes, high dropout, unclear inclusion criteria, effectively undermining the attribution of any reported positive outcomes.

Organisations delivering NBSP services often experience challenges associated with securing long-term sustainable funding in the UK^{32,33}. Often grant funding operates using short-term funding models, focused on supporting novel schemes over sustainable and continued delivery of existing programmes. As such organisations often experience a lack of resources such as, staff time, lost knowledge and/or skill due to workforce retention issues. This coupled with the complexity of service user needs and ability to complete outcome measures limits opportunities to embed comprehensive evaluation into individual NBSP schemes³⁴, particularly those delivered by smaller organisations³².

Equally defining and quantifying the benefits of nature-based social prescribing is challenging for a number of reasons. The ecosystem of creative health is complex with much variability in practice and settings. Benefits may be multifaceted and take some time to reach fruition. Outcomes such

Figure 1. An artist's visualisation of service user experiences at Swansea Community Farm.



as improvements in mental wellbeing, social connectedness and improved quality of life are often highly subjective and difficult to measure³⁵. Quantifying the ‘ripple effects’ created by an activity is complicated due to the number of variables involved. Often qualitative information and stories of participants give powerful evidence of transformative effects which are difficult to demonstrate quantitatively. Exploration of the service user perspective on NBSP therefore offers vital insights that go beyond traditional metrics like health outcomes and economic impact.

Thus, this study aimed to explore NBSP from the perspective of the service user; to understand individual’s experiences, what they valued most, and the perceived benefits gained from participation. Exploring user perspectives deepens understanding of the impact of NBSP and broadens the evidence base by capturing benefits which may not be measured in standardised wellbeing evaluation tools. The insight gained from the study is used to create a framework for future evaluation.

Method

Ethics

This project was approved by Swansea University Medical School Research Ethics Committee in two phases; focus groups (22.1.23/ SUMS-RESC 2022-0126), data validation (13.06.2024 reference: 3 2024 9746 9056).

Study design

Qualitative enquiry conducted from a constructivist epistemological position.

Setting

Swansea Community Farm, located in small city in South Wales (UK), offers a structured outdoor volunteering programme targeted at adults who are suffering from mental health issues, long-term unemployment, and other disadvantages. The programme is designed for them to find healing and purpose in their own community through learning to self-manage their mental health in a supportive environment. Citizens can take part in a range of outdoor, nature-based activities including gardening, looking after animals, hedge and forestry maintenance, carpentry, and local community open days.

Participants

Participants were all current service users at Swansea Community Farm. To be included participants were required to have been a service user at the farm for at least one week, be aged 16 or above, and be able to provide informed written consent.

Procedure

Participants were invited to take part in a focus group discussion, held in person at Swansea Community Farm (09.03.23). The wellbeing officer at the farm provided information on the purpose of the discussions one week in advance (02.03.23). This ensured opportunity for questions to be answered by a trusted person. On the day of the focus groups the lead researcher outlined the

purpose, took written consent and facilitated the discussions. A local artist attended and created a storyboard which visually represented the service user 'journey' and captured key features of the farm experience; printed onto a large weatherproof board this was then used a year later in a data validation exercise, following which it was gifted to the Farm.

The intention of the return visit was to explore whether the storyboard accurately reflected service users' journeys and experiences and using the one-to-one setting afforded by the interview, to explore in greater depth the features of the scheme that were most valued, by participants. On the day (04.07.24 and 09.07.24), the researchers explained the purpose, what would be involved, and took written consent. Researchers spent the whole day at the farm to ensure participants could take part at a time convenient for them and so they had time to think about whether they wanted to take part. During the interviews participants were asked what they thought of the storyboard (Fig 1.) and to consider whether it represented their own personal journey (and where it may differ). Focus groups and interviews were audio recorded and professionally transcribed.

Data analysis

Focus group data were analysed using thematic analysis³⁶. The researcher (MB) familiarised themselves with the transcripts. Undertook line by line coding which was entered into a coding structure document to group codes and review raw data associated with each code. After which a thematic map was created to visualise the codes, explore patterns in the data and identify initial themes. This was achieved through a process of reviewing and grouping linked codes. Emergent themes were discussed and explored with a local artist and used to produce the storyboard.

Following the data validation exercise, the focus group data were revisited, and researchers familiarised themselves with the transcripts, storyboard and initial codes and themes identified. The interview data was then coded in NVIVO using the same iterative process as described above (AF, CJ). During this process data were explored in a staged approach; first with a specific

focus on identifying instances where participants experience either validated the 'journey' depicted in the storyboard or diverged from it. Secondly it was explored for new insights, details and codes that were not present in the focus group data set. Finally, the data were revisited with the aim to identify the 'active ingredients' of NBSP associated with positive outcomes for participants and to unearth the 'wider value' of participation. Again, a thematic map was created to visualise the codes, explore patterns in the data and identify initial candidate themes. This was achieved through a process of discussing and grouping linked codes followed by a revisit to the focus group data set. This staged analysis process ensured themes encompassed the full data set and is reported together to provide a holistic overview.

Results

Twenty-two participants took part in one of three focus groups; mean duration 37.63 minutes (range 20:52 to 49:24 mins). The majority were female (12/22, 55%). Seventeen interviews were conducted, mean duration 12.26 minutes (range 6:57 to 22 minutes). The majority were male (13/17, 76%).

Thematic findings

Three themes were identified: 'Community', 'Nature connection and exposure' and 'Ripple effects' and are described below. Of interest during the data validation exercise (interviews), participants unanimously agreed that the storyboard was a good representation of their own personal journeys. For example, one respondent said, "I think it's very good actually because that is me" (Interview 8, Male) and "that's me [the male cartoon character] every single day." (Interview 10, Male).

Theme 1; Community

The farm provided participants with an opportunity to become part of a community; somewhere they felt welcomed and felt like they belonged. This enabled them to make friends and develop social connections that previously many had not enjoyed. This sense of belonging afforded purpose. This theme is described via three sub-

themes which explain how the ‘community’ was created and sustained and finally what they valued most about it.

Sub-theme 1: Farm staff

All participants described the farm staff as welcoming, friendly and supportive. Many noting how staff made themselves available when needed, noticed individual needs and attend to them, ensuring participants didn’t have to deal with concerns or worries alone. This approach created a safe environment; *“I feel safe here”* (FG2, Female). Participants appreciated the patience, and empathy, shown by staff. Helping them to feel accepted which cultivated a sense of belonging. Some mentioned that they had not found the same elsewhere. Relational continuity was observed as an important factor in building trust and affiliation particularly with those who had been attending the farm for a long time.

“They kind of treat each person as an individual and like, obviously they know their stuff. So, but they treat everyone on their level, no matter your age or anything like that. Speak to you as a person, they don’t speak down to you, which I kind of like.” (FG1, Male).

Participants gradually built their knowledge and understanding of the farm, including the skills required for working in an outdoor environment; nurtured by staff through encouragement and guidance, contributing to the sense that everyone was ‘in it together’.

Sub-theme 2: The activity structure

Farm staff created a supportive structured outdoor environment which included weekly tasks delivered via group leaders who offered supervision and guidance. This enabled participants to learn at their own pace. The weekly schedule incorporated routine tasks and timetabled activities, coffee/lunch breaks which built familiarity, provided comfort and reduced anxiety. Flexibility was also built into the routine. For example, participants could select the activities they took part in, which allowed them to have a sense of control. Many frequently chose the animal house *“I like the routine of the animal house.”* (FG1, Male), *“I mainly enjoy doing stuff with the animals. It’s where I normally am most days of the week.”* (FG1, Male).

Sub-theme 3: Family

Participants frequently described the farm as a *“family away from my family”*(FG2, Female), *“We’re part of a family, part of a team.”* (Interview 8, Female).

This view of the farm is likely linked to the positive role of farm staff, structures, and routines curated. For example, the supportive environment enabled many to feel safe and to form new friendships. Friends who were supportive, non-judgemental and understanding; for some this was a new experience.

“The people on the farm the past couple of years I’ve been here, have done more for me than people have all my life, they’re really supportive.” (FG2, Female).

Being part of this ‘family’ helped them to develop a sense of purpose and excitement, which they felt was captured in the storyboard.

“I didn’t want to get out of bed initially, and then when I started coming to the farm, yeah, it really got me motivated every single day that I came here”. (Interview 13, Male).

Theme 2; Nature connection and exposure

This theme highlights the participants perceptions of the benefits of the natural environment; the scheme and all the farm activities are facilitated outdoors either looking after the animals, growing vegetables and flowers or working on the heath building and maintaining the farm buildings; they discussed their appreciation of being exposed to and connected with the natural environment.

Sub theme 1: Exposure to nature

Most participants stated that they preferred being outdoors. That they enjoyed the quiet of the farm, the opportunity to escape the city and its busy roads nearby; *“the uniqueness of the location”* (FG3, Male) was commented on by many as they considered what this brought them.

“It helps as well, it’s like, it feels like very nature-y. Like you take two steps out of the farm. It’s just like busy

roads, cars, houses. But then, you go in here and it's like a completely different place. It's quiet and sometimes people prefer that kind of environment." (FG1, Male)

Participants also emphasised that being with the animals, and physically working helped them to gain a sense of space, which benefited their mental health. Many explained this was different to their normal life, where they often felt 'stuck' in doors, in their homes, and past experiences working in offices/shops, which they had struggled with.

"I think working outside, doing the stuff they do here and working with animals, is so beneficial to mental health." (FG3, Male).

"it's good to have more space out there and get some air." (FG1, Female)

Sub theme 2: Connection to nature

The opportunity to become immersed in nature allowed them to connect to the natural world in a way they hadn't done previously. They developed new interests and appreciation of the world around them. Some described a deep sense of affinity for the natural environment and a desire to explore things further. One participant discussed how they had learned about bees having taken a training course at the farm and was enjoying a new connection with animals and insects. Another spoke about how looking after the animals each week enabled them to feel a sense of responsibility and love.

'...life is life, you know, but I'm kind of enjoying that because as human beings, furthermore with an animal, we're part of creation, we're not separate from that. So, I feel a lot grounded because of it, I'm more in touch with nature around me, and with that comes the caring' (Interview 12, Male)

Theme 3; Ripple Effects

This theme explores the benefits of participation to personal and social development and the impact on participant's daily life beyond the activity.

Participants spoke of increased confidence, self-esteem or self-belief since joining the farm; they discussed the benefit of this in the context of their 'everyday lives' outside of the farm setting which

in some cases had allowed them to achieve things they 'never thought possible'. *"My confidence has grown this past year. My confidence has grown and grown and grown"* (FG2, Female). For example, one participant discussed how by developing new personal and social skills they had been able to take on new independence in their home life live, *"... I cooked my first ever sausage dinner."* (FG2, Female). It also provided social currency and an opportunity to talk about activities with friends outside the farm *"sometimes I tell my mates in the pub that I'm down on the farm and stuff, I volunteered."* (Interview 7, Male).

Equally the training and educational opportunities offered at the farm supported participants to develop personal and social skills. Education and training opportunities within a supportive environment, broadened their horizons and positively contributed to their life. For example,

"Yeah, it helps me 'cos with doing all that training it can help me with getting a job or something, like the safeguarding training. Some jobs do need safeguarding, I've already got the training for it, and also with peer mentor training, I don't know whether that's useful, but yeah. First aid training I could get a job with security guard or something like that." (Interview 10, Male)

Participants talked about how they had become more inclusive of others, others with different life experiences, and different mental health concerns. They felt they were less judgemental and more understanding of family and friends.

"A lot of people have problems themselves or at home, their home lives and so on. So that was quite challenging. But I think we all learned a great deal [from the mental health course]. Not to be sort of judgmental of people and maybe to look at people in a different light, you know. It helped me with my own family, taught me a great deal" (FG2, Male)

Discussion

The value to service users were highlighted in three key themes. Skilled staff together with the structure of the farm created a sense of safety, and belonging, and 'family' which afforded them access to a supportive community. Though a sense of belonging participants derived purpose and meaning. Being exposed to nature and developing

a connection with the natural environment were important to the participants and this environment was valued. Through supported participation, service users increased their self-confidence and self-belief, increased resilience, and were afforded education and training opportunities, that supported their health and wellbeing beyond the immediate context.

These insights echo earlier findings, reporting how NBSP promotes mental wellbeing, through the opportunity for social support³³ where the quality of social support is important³⁷. Equally recent empirical findings by Bhatti et al.³⁸ reported that social prescribing supported individuals to develop new skills and fostered trusting relationships with both staff and peers, in a similar vein to the experience of current participants. These ‘active ingredients’ are critical for positive outcomes and aid understanding of features which are critical to the success of NBSP schemes more widely.

Future research

The themes highlighted key areas of value associated with the NBSP. It is these that future research should focus on exploring in greater depth. For example, building on the work of Warran, Burton, & Fancourt³⁹ it will be important to explore areas of value to participants by developing ways to quantify the ‘active ingredients’ of NBSP schemes; in a similar vein to the categorisation produced for creative social prescribing schemes (Arts based schemes). As such we have developed an initial framework which we will pilot to explore this further based on the themes identified in this study and those reported in the literature. In the hope that it will afford a greater understanding of the role of NBSP across Wales, the UK or globally as interest rises⁴⁰, and perhaps go some way to addressing the financial concerns highlighted by stakeholders which limited activity and resource provisions. This adds to the comments of Leavell et al.²⁴ who have called for additional research to inform and enable the co-creation of social prescriptions that are of value to those in need of them as well as those who prescribe them. Identifying the active ingredients of NBSP, using service user perspectives, could create an effective framework for future evaluation, streamline data collection for

organisations and help stakeholders better understand how they add value to participants lives.

It is important to expand understanding of ‘value’ beyond measures of loneliness, social isolation, and mental health (whilst acknowledging the importance of such). We believe this will support the development of further evaluation measures which can be implemented, something which is a current focus of attention within the sector (e.g.,^{41, 42}).

Finally, it is important for policy makers to use a wide variety of sources of evidence in making decisions that affect the organisation of services. Social prescribing may have wider benefits than those captured in validated mental health and wellbeing outcome measures and some positive ripple effects of social prescribing are emerging. Several social prescribing projects have created green spaces within their communities which have environmental benefits for example improved biodiversity and climate benefits⁴³. Many of the wider benefits to communities and participants have not yet been investigated.

Conclusion

This study creates a deeper understanding of the impact of NBSP by exploring service user perspectives. Listening to their experiences and personal journeys highlighted areas of value associated with participation including developing a sense of community, nature exposure and connection and ripple effects related to personal and social wellbeing.

As NBSP becomes increasingly part of primary health care practice, and the evidence base continues to develop, it will be important to assess impact and design future services taking into consideration the outcomes that are most valuable and beneficial to service users. Assessing a large number of outcomes that are important to participants as well as policymakers and clinicians must be balanced against the capacity of third sector organisations to conduct robust evaluations. A pragmatic approach must be taken. Identifying the key active ingredients of NBSP, using service user perspectives, could create an effective framework for future evaluation and help

stakeholders better understand how they add value to participants lives.

By broadening our understanding of the value of NBSP to participants we capture benefits not visible in clinical and economic data. This may be useful in creating services that resonate with participants, improving uptake and retention to activities and supporting advocacy to create a stronger case for funding and investment in this area.

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