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# **The lived experiences of adults with learning disabilities: Taking part in a community gardening group**

## **Abstract**

### **Introduction**

People with Learning disabilities (LD) are marginalised within society and experience reduced occupational participation compared to the general population. Research exploring the lived experiences of adults with LD is limited. Gardening has a long history as an Occupational Therapy (OT) intervention with evidence of its benefits for well-being. Yet, previous work with adults with LD has focused on the perspective of the practitioner and has failed to address participant experience. This study aimed to understand the lived experiences of people with LD taking part in a gardening group.

### **Methods**

Adults with LD, participating in a charity-run gardening group were recruited to a qualitative, phenomenological study. With consent, participants engaged in a semi-structured interview exploring their experiences of being a member of the gardening group. Thematic analysis was utilised to interpret the results.

### **Results**

Seven interviews were completed. Four main themes indicated that the gardening group helped aid relaxation, provided sense of achievement, developed practical and social skills, and was a lifeline to make friendships.

### **Conclusions**

OTs should utilise these findings to inform practice and reduce occupation deprivation. Future research should explore how environment, activities and participation time, impact the occupation of gardening for adults with a LD.

## Introduction

Meaningful and therapeutic use of occupations are part of the foundational philosophy of Occupational Therapy (OT). Occupations such as gardening have been at the core of the profession's history with benefits of gardening and its use as an OT intervention evident from as early as the 1930s (Hartwell, 1933). Gardening therapy incorporates a range of activities which include sowing seeds and attending to plants, growing and harvesting vegetables and fruits. Landscaping, building, and creating green natural environments, along with other gardening-related tasks to accomplish therapeutic goals (American Horticultural Therapy Association, 2022).

Gardening has been shown to have benefits in a general population. Evidence from a systematic review (Genter, Roberts, Richardson, and Sheaff, 2015) indicated allotment gardening elicited stress relief, provided social opportunities and fulfilling contact with nature, and promoted self-development. Whilst this study recommended gardening as an OT intervention for people with mental and physical health concerns, the included studies were drawn from allotment gardening only, which means results may not generalise to other forms of gardening. Furthermore, accessibility to allotments has become scarcer in the United Kingdom (UK), with London allotment sites decreasing three-times more quickly than a decade ago (Fletcher and Collins, 2020). with over 90,000 people waiting for an allotment (Power, 2019). York and Wisemen (2012) investigated a range of forms of gardening. They critical reviewed four qualitative studies and found being surrounded by green natural spaces elicited feelings of calm and provided a space where people felt connected to something 'real'. Gardening was found to increase physical activity to overall improve fitness and mental health.

People with a learning disability (LD) are increasingly at risk of reduced occupational participation, engagement and health (Channon, 2014). The National Institute of health and care excellence (2022) outlines a LD as someone with a decreased ability to process new or complex information and acquire and retain new skills due impairment of cognitive, language, motor, and/or social abilities. Individuals with LD have reported significantly reduced health, in comparison to the wider population (Turner, 2011), being more likely to experience poor mental health, cardiovascular disease, obesity, and sensory impairments

(Allerton, Welch, Emerson, 2011). The impact of this is evident with research indicating that women with a LD die 20 years, and men 13 years before the general population; 42% of these deaths were reported to be premature (Public Health England, 2017).

People with LD are at higher risk of experiencing occupational deprivation compared to the rest of the population (Verdonschot et al, 2008). Research suggests this is due to the many challenges in day-to-day life people with LD experience such as social isolation, dependency on support to engage in everyday activities, and lack of services (Department of Health, 2001). Furthermore, individuals with disabilities were more likely to have lower levels of employment, educational qualifications and less likely to own a home (Office of National Statistics, 2022). Occupational deprivation imposes detrimental effects on an individual, by negatively impacting their psychological and physical well-being and quality of life (Whiteford, 2000).

Triguero-Mas et al (2020) explored rooftop gardening for people with LD and mental health conditions in a large mixed methods design study (n=97). The findings suggested that rooftop gardening improved personal development, heightened physical and psychological wellbeing, sense of purpose, social interaction, and overall enhanced quality of life. However, the study was undertaken in Spain and as, the duration and strength of exposure to visible sunlight can contribute to optimising mental wellbeing (Holick, 2001), this could be a contributing factor to the results of this study. A further study has shown gardening groups influence health, wellbeing, and inclusion for adults with learning disabilities, mental health, and physical disabilities (Diamant and Waterhouse, 2010), although observer bias, due to the researchers also facilitating the gardening sessions, may have influenced these findings.

There is a growing body of literature on benefits and experiences of gardening for the wider population; however, there has been very little investigation into the experiences of people with LD who engage in gardening as an occupation. Further investigation is essential to support the practice of therapists working with people with LD The study aims to address this gap through an exploration of the lived experiences of adults with LD taking part in a community gardening group to inform occupational therapy practice.

## Method

This study recognised an interpretivist stance, based on the belief that knowledge is understood through examining the experiences and interpretations of the social world from different perspectives (Williams, 2008). A phenomenological approach was adopted. This approach allows researchers to gain an understanding of the lived experience, which in turn allows learning from others, requiring the researcher to engage in collecting rich data to gain a deep understanding of a phenomena, this approach has a clear role in healthcare research (Neubauer, Witkop and Varpio, 2019). The approach utilises inductive reasoning to generate meaning and patterns from individuals with experience of a given phenomenon.

### **Setting**

The study setting was a charity-based garden group. The gardening group was led by the participants and facilitated by development workers. The group met up regularly during the week and would participate in various gardening activities, such as planting, caring for crops, landscaping and woodwork.

### **Researcher perspective**

Prior to working as an Occupational Therapist, the lead author had experience working and supporting people with LD. She had volunteered with the charity involved in this study but had no previous involvement or contact with the gardening group. The other two authors are academic Allied Health Professionals with experience in qualitative research methods.

### **Participant Sample**

Adults aged 18-65, of any gender and ethnicity, with a diagnosis of a LD who had participated in the gardening group for a minimum of three months were eligible for inclusion in the study.

### **Recruitment**

A development worker at the charity acted as a gatekeeper to support the recruitment process. The gatekeeper explained the study to all gardening group members and provided information to those who expressed an interest. Any group member indicating an interest in

participating met with the researcher to complete an audio-recorded consent process and subsequently, to participate in an interview.

### **Data Collection**

A semi-structured interview schedule was informed by the study aim. Resources from previous projects undertaken within the charity were used as reference to guide language to ensure accessibility of the interview questions. A draft schedule was reviewed by the research team and development workers at the charity. Following this process, the wording of four questions on the interview schedule was altered. The final interview schedule consisted of 15 questions (see Figure 1).

Figure 1: Structured interview questions

#### **Structured Interview Questions**

1. How did you first become involved in the garden project?
2. What are the different activities you have participated in while gardening?
3. How often do you garden?
4. What drew you to gardening group?
5. Have you learnt anything?
6. What role have you taken when gardening?
7. How does gardening make you feel?
8. Does gardening give you a purpose?
9. Do you feel like you have accomplished something?
10. Can gardening make you feel useful?
11. What do you enjoy about gardening group?
12. What don't you enjoy about gardening group?
13. Have you made friends with anyone since joining gardening group?
14. Do you feel supported at gardening group?
15. Is there anything you'd like to do differently at gardening group?

Face-to-face semi-structured interviews were undertaken with participants. The interviewer used prompts and follow-up questions to gain greater insights into participant's experiences and to facilitate the collection of rich data. To ensure adequate support, and ethical responsibilities, participants were accompanied by an advocate of their choosing during the interview. The interviews were recorded on an encrypted voice recorder.

### **Data Analysis**

The interview recordings were transcribed. The transcriptions were anonymised, and a pseudonym was allocated and used throughout data analysis and reporting of the findings to maintain anonymity. The Interviews were analysed using Braun and Clarke's (2006) Thematic Analysis. Thematic Analysis is a recognised approach for analysing the data from phenomenological studies (Braun and Clarke, 2014; Sundler, Lindberg, Milsson and Palmér, 2018). The transcripts were read through thoroughly to gain a familiarisation with the data and initiate the process of interpretation. Next, the researcher went through the text line by line and coded phrases. When all the interviews were complete, these codes were reviewed and arranged in initial themes, by one researcher. The initial themes were further analysed, and definitions developed with a second member of the research team to form the finalised themes. These final themes reflected the researchers' interpretation of the prominence of the concepts across the interviews. This approach was adopted to ensure that the themes represented concepts that were most important to the participants. A reflexive journal was utilised throughout the analysis process, as a method to enhance researcher awareness and deeper understanding of data.

### **Ethics**

Ethics was approved by the University of \*\*\*\*\* ethics board (Reference Number: Health 0296). As the participant sample were potentially vulnerable individuals, extra steps were taken to ensure their protection throughout the study. The development workers had an established relationship with the group members and were able to support the decision whether to participate with impartiality. Participant Information sheets were made available in full and easy read format. An appropriate advocate was present with the participants during the interviews. Finally, the results were presented in an easy read poster that was accessible to the participants.

## Results

Seven interviews were conducted, with five males and two females between 25 and 60 years of age. Participants had attended the group for a minimum of once a week for at least three months, but not more than two years.

Four themes were identified: Feeling Relaxed; Sense of Achievement; Learning New Skills (which encompassed two sub themes: Social Skills and Practical Gardening Skills); and Friendships. These themes are described in detail below.

### Feeling Relaxed

Many participants reported that participating in the gardening group helped them feel relaxed, which was beneficial for reducing stress and improving overall wellbeing, and one of the dominant reasons why they enjoyed the activity:

*“It makes me feel very calm and relaxed, because when you feel like you are all stressed in yourself you can actually go outside and do some planting or do some sweeping or some weeding and I find that relaxing.” - Nicola*

By the act of ‘doing’ and being engaged in an activity in a different environment, gardening enabled focus on what was happening in the moment and reduced other stressors. This was supported by another participant:

*“cause I had been through a difficult time, it take my mind off it and It just made me feel more relaxed...it made me feel better in myself and ... feel like I can do something.” - Tara*

Members shared how interacting with the plants and outdoor environment enhanced the feelings of being calm and relaxed:

*“Gardening is relaxing its chill out, it’s nice, pleasant exercise, as you do stuff for the grass the grounds the plants and you are feeding the world sort of things, you are changing the surroundings...turned it over which revitalises.” - Melvin*

And helped them feel they had control over what they were doing:



*"[I feel] satisfied and relaxed because I enjoy the activity and because I am in charge and nobody is telling me what to do, or be demanded with slightly unrealistic targets, I feel I am in control". - Daniel*

Feeling relaxed was a valued aspect of taking part in the gardening group. The reasons for this included being focused on the activity, which was a distraction from other thoughts and stressors, being immersed in green natural environments, and gaining control of actions with no outside pressure.

### **Sense of Achievement**

All participants demonstrated a sense of achievement, either as an individual or a group. Participating in the gardening provided an opportunity to demonstrate capabilities and overcome new challenges. The participants reflected on feelings that were elicited when they achieved something and how that contributes to overall wellbeing:

*"It makes me feel happy and like I achieved something as you are getting out and meeting people...at the end of the day you feel tired, and your mind has been active...you've not been sitting at home being bored... making you feel happy and occupied and had fresh air...you have achieved something... whatever you built." - Simon*

For this member it was the overall experience of the group, being occupied, and in an outdoor environment, having opportunity to interact with others and building something that contributed to that sense of achievement.

Members highlighted the importance of visual rewards:

*"I looked up and was like it's a garden now, look at all the stuff that's growing with the pumpkins and the strawberries and everything, we have done that and doesn't it look nice"- Daniel*

*"Since my mum passed away, joining the group has given me a purpose...you feel you've achieved something at the end of the day when you can stand back and look at your own work and feel that if you and others are satisfied... you've done a good job, that is rewarding." - Jamie*

In the latter quotation, there is also an indication that gardening has helped the participant in a time of loss. There was evidence that participants enjoyed the specific achievements gardening offers:

*“I’m growing tomato’s seeding...they’re now germinating and growing...I enjoy watching the daily progress even though it only a millimetre or two... and I’ve done that.” - Daniel*

And that there were benefits of growing produce:

*“well, I’ve done that... it tastes better, fresher, and its home grown.” - Nicola*

Gardening provided a sense of achievement which appeared to bring enjoyment and satisfaction and motivation to continue to engage with the activity.

## **Learning new skills**

### **Practical skills**

All group members had developed a range of skills such as planting, landscaping, woodwork, care and maintenance of vegetables, and harvesting. Members described their experience:

*“Learning planting... and making square beds... putting joints and getting them together and how to make raised beds out of sleepers.”- Simon*

*“I’ve learnt lots about vegetables, how to care for them as well and then how to put bark down... I’ve got some experience with woodwork and landscaping.”- Melvin*

For some participants, their interest grew, and they sought ways to learn more about gardening:

*“I’m quite good what’s easy to do like planting... I’ve brought a gardening book as well I’m researching”. - Jacob*

*“I watch videos online on how to do things rather than buying a book or something as I like to see it being done.” - Jamie*

After learning basic skills at the sessions, members utilised research skills outside the group to extract and evaluate knowledge to apply in sessions:

*“I wanted to find out the best way of supporting broad beans, whether to use stakes or to use a nest of string cornered around the... stakes and I even spent time working out the best route to take the string for maximum coverage.” - Daniel*

Due to the diverse nature and various activities in gardening, members reported that they learnt many new practical skills which kept their mind active, encouraged learning, and gave a sense of fulfilment. For one participant the enthusiasm for gardening had transferred to their home environment:

*“I like gardening in my flat now, growing things in the windowsill... and I have a greenhouse as well which I have started plants from seeds in”. – Jamie*

### **Social skills**

Working together in the group offered the chance for people to develop skills to communicate and interact with each-other:

*“I learnt different things off other people and getting other people’s ideas at the same time, so you sort of learn social skills.” - Jacob*

*“Being together and learn new skills, learning each other” - Tara*

With evidence of participants developing specific skills, such as listening skills, patience, collaboration, problem-solving:

*“Understanding how other people do things and...let people help you and be a bit more patient if they are trying to help you. Don’t always think your way is the best.” - Simon*

And consideration of others’ needs:

*“It’s how we are encouraged to be thoughtful and care for each other and work as a team and that was really enforced in the gardening group.” - Daniel*

There was some evidence that some participants found learning to work with others challenging:

*“Dealing with other people, the social aspect which is a weeny bit different.” - Melvin*

*“Sometimes we didn’t agree with each other, and would want to do different things to the garden” – Nicola*

For some members working together in a group to create something was a novel experience, and that the group offered a first opportunity to develop and learn social skills. Some participants had challenges along the way, but the majority were able to reflect on the importance of having those skills and how they could apply these in everyday life. The application of these social skills was evident in the next theme (Friendships).

## **Friendships**

Friendship was the most prominent concept and was discussed by all participants during the interview. Many highlighted friendships as the initial reason for joining the group:

*“It was friendship really, getting to know friends and doing something with other people.” - Daniel*

Others indicated it as the most enjoyable aspect of the group, as one member underlined:

*“I like the social side, it’s the talking to each other and finding out what interests there is.” – Nicola*

The group provided the opportunity for sociable interactions to build meaningful connections between the members. One participant recognised the importance of friendship for their mental health and wellbeing:

*“I enjoy that we’ve got banter and have laughter, we support each other, The socialising...its good for your mental health, to meet and make friends, it gets you out, and keeps your mind active and stops you feeling not by yourself, and you know other people to talk to, it makes you feel good inside.” - Simon*

Whilst for another participant the gardening group was their only social outlet and became a lifeline to prevent isolation:

*“If I don’t go there, I feel lonely, and you don’t get to see people.” - Jacob*

These connections developed as members experienced a commonality and shared life experiences, as one member explains:

*“It was chat making, creative something, and the knowing of being with friends who understood and understands everyone.” - Tara*

With these support networks being a key component to helping members through difficult times:

*“I had lost my husband and I wanted to keep in contact with everyone from here [the gardening group] as they all helped me when it happened.” - Tara*

The gardening acted as a catalyst for friendships to grow outside the group:

*“Afterwards there is the opportunity of going off...going for lunches with people and like coffee with friends.” - Jamie*

*“We have banter and social time outside of the gardening group.” - Melvin*

Not only has the gardening group been a vital outlet for members to develop lasting friendships with meaningful connections, but the group members also appear to have developed their own community, facilitating friendships with others who share common interests. This has provided support networks, and opportunities to have fun and enjoy social interactions both within and outside of the gardening sessions.

## Discussion

This exploration of the lived experiences of adults with LD participating in a gardening group led to four main themes: being relaxed, a sense of achievement, learning new skills, and friendships.

The participants in our study found gardening in a natural environment relaxing. This effect is supported by the Biophilia hypothesis which outlines that all humans have an innate urge to be connected to nature (Wilson, 1993), with Ulrich's stress reduction theory (Ulrich, 1991) suggesting that focusing attention on greenery and engaging in nature creates a sense of calm, pleasure, and relaxation, after experiencing a state of stress. This theory aligns with the experiences of the gardener participants whose stressors subsided as their attention was focused on gardening. Furthermore, it can be noted that these benefits may not be

exclusive to the physical environment alone but the combination of interactions the participants experienced with each other. The interdependence of environmental factors aligns with the model of Person, Environment and Occupation (Law et al, 1996) which highlights occupational performance is formed by the interactions between these three components.

The participants felt more relaxed and satisfied as a result of being in control over their activity. Taylor (2014) suggested that people with LD often need additional support and that the required balance of support and promotion of independence is not always met, leading to people with LD often feeling they have no autonomy over their lives. Research suggests that for individuals with LD, autonomy is associated with higher levels of independence (Shogren and Shaw, 2016). Our findings support this, as the gardening project provided members opportunity to exercise autonomy and be more independent, which led to the reported well-being benefits.

The gardeners expressed a sense of achievement from participating in the gardening group recognising joy and satisfaction when sharing their range of achievements. The importance of achievement when gardening has been previously established (Scott, Masser, and Pachana, 2014; Cheng and Peng, 2016), and has been linked to self-efficacy, and self-regard (Northway, 2019). Newman, Tay, and Diener (2014) found psychological accomplishments gained from an activity, motivated people to identify and engage more with that activity and pursue activities that are likely to provide intrinsic rewards. This may explain the engagement and motivation that was apparent in our study.

In our study, learning new skills was an important component of personal development, as participants reported gaining gardening and social skills. These findings are consistent with previous research which suggests gardening provides an extensive environment for opportunities to learn various skills (Whatley, Fortune, and Williams, 2015). Previous literature also suggests that environments that develop social skills encourage individuals to be sociable and engage, and to overcome obstacles (Schuller et al, 2002), with continued learning for adults improving quality of life, life satisfaction and happiness (Feinstein and Hammond, 2004).

Isolation and loneliness are more prevalent for people with LD compared to the general population causing deprivation of meaningful friendships, which has a detrimental effect on mental health and wellbeing (Mason, Timms, Hayburn and Waters, 2013). Most participants reported that friendship was the most valued attribute gained from the gardening group, acting as a vessel to build a foundation of meaningful connections within and beyond the gardening sessions. These friendships provided opportunities to share common interests, have fun social interactions, and create support networks. Suto, Smith, Damiano and Channe (2012) found these same qualities in other community gardening projects within the general public; however, they noted these social assets did not stretch outside the gardening groups. In contrast, our study found that the gardening group brought the opportunity to develop sustainable relationships beyond the occupation for people with LD, potentially reducing occupational deprivation.

It is an interdependency of these four themes that made gardening a meaningful occupation for the members of the group. This was evidenced by one participant who stated:

“It helps me, meet up with friends, you’re out in the fresh air and achieved something. You’re learning at the same time, it gets you out the house...and keeps your mind active.” – *Simon*

The themes that emerged in the current study align with the Framework of Health and Occupation (Wilcock, 2006), comprising of doing, being, becoming, belonging. The participants of the group demonstrated ‘doing’, as they engaged in gardening and its relaxing effects (theme 1). ‘Being’ aligns with the sense of achievement gained from gardening and the positive impact on self-esteem (theme 2). The ‘becoming’ reflects learning new skills and the effect on personal development (theme 3) and finally ‘belonging’ embodies the final theme of friendship, enabling interpersonal connections and being part of a community. This study, seen through the lens of the Framework of Health and Occupation, supports gardening as a meaningful occupation for adults with LD and a means to positively impact wellbeing.

The gardening group appeared to promote autonomy and independence, provide a sense of achievement, and the opportunity to learn new skills and develop sustained friendships,

whilst benefiting from being in an outdoor environment. However, it is not clear if it is the gardening itself that elicits benefits, or the engagement in an occupation with others. Whilst this has not been established, the gardening group was clearly important to the participants in our study. One participant stated:

“Gardening is one of the things that makes me feel worthy and useful because I’m doing something, so it's to do with the me not the project” – *Daniel*

In light of the findings from this study, we recommend that occupational therapists recognise gardening as a potentially meaningful occupation for people with LD and that they act as agents of change by advocating on behalf of people with LD to create networks within society to promote similar projects. In a context where social prescribing is a priority area, occupational therapists need to work with community and voluntary organisations to utilize their unique services. Occupational therapists have a key role in promoting occupations for well-being, such as gardening, by enabling people with LD to access and these services.

## Limitations

It was not possible to fully pilot the interview schedule, this was mitigated somewhat through the involvement of the research team reflecting on the interview schedule content. The participants volunteered themselves to take part in the research, and so this may indicate they have an initial interest and bias towards gardening which could have reflected on the overall positive response in this study. Finally, we recognise that this is a small study; however, we have explored views from a population who are often excluded from research (Durell, 2016) and feel that the depth of data provides important insights and a foundation for future research. This study consisted of seven participants five males and two females, and whilst this has provided a depth of understanding we did not collect detailed demographic information from the participants, so should not be assumed that the findings are transferable to all people with LD or all gardening groups. We do not know whether saturation of themes was reached. However, given the shared views of the participants and the recurrence of the concepts discussed here, we are confident that the data we present provides a comprehensive perspective of the experience of participating in the gardening group. We do recognise that we have not captured the views of people who have not continued participating in the gardening group.



Further research is required to establish whether it is the activity of gardening that is important or some other component of the group. It will also be important to establish the optimal gardening group provision for people with a LD to ensure benefits are maximised. In addition, literature exploring the lived experiences of occupations that have meaning to people with LD is still limited. and so research of other occupations could be explored to Further research should aim to reduce the occupation deprivation and health disparities faced by people with LD.

## Conclusion

This study set out to provide a greater understanding of the lived experience of adults with LD participating in gardening in the context of a gardening group to inform the practice of occupational therapists. The findings indicate that gardening is a meaningful occupation for the adults with LD who participated, reducing stress, providing a sense of achievement, an opportunity to develop and learn new skills, and build connections and sustained friendships with others. Additionally, the gardening group promoted autonomy and independence in this environment. Occupational therapists are encouraged to reflect on these findings in relation to their role in community and voluntary settings and in the context of a social prescribing. Further research is required to gain a better understanding of the key beneficial components of a gardening group, and to continue to explore the lived experiences of marginalised groups to reduce health disparities.

## Key findings

Occupational therapists should:

- recognise gardening as a potentially meaningful occupation for people with learning disabilities
- advocate for access to gardening occupations to support well-being
- work with community organisations to utilise their unique services

## **What the study has added**

This study offers a unique perspective from a underrepresented population in research by exploring the meaning and first hand experiences of a gardening group for people with learning disabilities.

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