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Mental Health Healing in the Woods:
An Evaluation of the Impact of the 2019 Woodland Wellbeing Project in Deepdale
Nature Reserve, Teesdale, County Durham

SUMMARY

Bright Woods Forest School CIC undertook an outdoor wellbeing project for adults with a range of mild, moderate and severe mental health conditions. The project aimed to support, encourage, facilitate and assist healing and recovery for those struggling with mental health issues such as generalised anxiety, depression, low self esteem, PTSD, trauma, bereavement, loss and social anxiety. The 15 participants were self selecting, some of which signposted by the GP, other mental health charities and the rest through advertisement in local and social media. The project involved 16 weekly 3 hour sessions over a period of 7 months with a break during the summer. Sessions were carried out at the Bright Woods Forest School CIC base in their designated woodland clearing in Deepdale Nature Reserve, Teesdale, County Durham. The sessions were semi structured providing the opportunity for the participants to engage with each other and the facilitators, outdoor/woodland activities including foraging, whittling, and cooking on the camp fire.

The research evaluation employed a mixed method design with both quantitative and qualitative measures by means of questionnaires and semi structured interviews. Participants were given questionnaires to complete measuring perceived stress levels, self esteem, general wellbeing and relatedness/connection to nature. These measures were taken at the beginning of the project, at a midway point and at the end of the project. Participants were also interviewed with a semi structured interview at the start and end of the project and a quantitative thematic analysis undertaken to explore what themes emerged. These themes identified and characterised elements of the project the participants found helpful and explained and explored the impact of the project on their mental health issues. Furthermore, they provide an effective framework from which future projects could be based.

It was hypothesised that at the end of the project the participants would have decreased perceived stress levels, increased wellbeing, increased self esteem and an increase of a sense of relatedness to nature and this would be reflected in both the quantitative and qualitative data. It was further hypothesised that there may be a positive correlation between relatedness to nature and levels of wellbeing and self esteem and negative correlation to perceived stress. That is, that as the participants felt more connected to nature this would be a contributing factor to the increase in positive mental health.

Every participant that was interviewed reported an improvement of their overall mental health as a result of being involved in the project and all expressed their desire and motivation to to be



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involved if there were a continuation of the project, and a sadness and some anxiety that it was coming to an end.

A statistical analysis using a repeated measures ANOVA (Analysis of Variance) did indeed demonstrate an overall increase in wellbeing, self esteem, relatedness to nature and a decrease in perceived stress across the group. This indicates that we can accept our hypothesis that the project did have a significant positive impact on the participants' mental health as measured.

Changes in nature relatedness and self-esteem occur within the first half of the project, and then remain stable throughout, whereas the changes in stress and wellbeing show continuous improvement throughout the project. This difference can be understood in terms of self esteem being a complex aspect of mental health which was unlikely to increase much higher than it did initially considering some of the participants presentation of moderate and severe mental health issues, of which low self esteem is likely to be co-morbid. Thus, some participants were very likely to need further intervention such as counselling, specialised therapy and long term intervention to see greater improvement in this area. Nature relatedness did improve significantly but remained stable most likely because the level of nature relatedness was already quite high and perhaps the initial weekly engagement in nature quite quickly facilitated a peak in their relationship with nature.

Whilst correlations were found between all measurements. No significant relationships were found between nature relatedness specifically and the other variables. Suggesting that nature relatedness alone was not a key factor in impacting the positive impact on the participants. Nevertheless, being in a nature based environment was reported by participants to be a helpful aspect of the project and this was identified clearly as a themes in the qualitative data.

The thematic analysis on the interviews enabled a clearer understanding of the results and an identification of aspects and characteristics of the projects implementation which facilitated an overall positive mental health shift in its participants. The following themes were identified as "Nature Based Environment", "Safe Space", "Peer Support", "Community", "Activities & Learning". The analysis of these themes supported the conclusions from the quantitative data corroborating a positive impact in mental health for the project and also explained the factors involved in facilitating this improvement.

The themes or factors identified in this research will be important to keep in mind and replicate when designing and implementing further projects of its kind. Further programmes being modelled on this current project would be based outdoors with an element of engaging with the natural environment, coupled with the cultivating and facilitating of the themes identified. This project highlighted that as an intervention it was a highly effective and meaningful holistic approach to improving overall mental health for the individuals taking part. A follow up study would be needed in order to identify whether such improvements will be stable over time.



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INTRODUCTION

Bright Woods Forest School CIC have been providing educational sessions for children of various ages in a riverside woodland setting for several years. Some sessions, particularly involving the younger children have their parents also in attendance. The facilitators discovered over time that the parents were also finding being in, and engaging with nature as beneficial as the children. The facilitators at Bright Woods have spent time a great deal of time in a nature based environment engaging in and facilitating activities with others and were increasingly aware that they may be able to offer an environment with sessions that could really assist in increasing the wellbeing in their community. Seeing the positive impact that they were already having for children and their parents they were encouraged to plan a project for adults focussing on promoting mental health and wellbeing. An increasing body of research literature, some of which is cited below in the discussion, is emerging and providing evidence that involving nature based environments in wellbeing projects is highly beneficial for mental health.

Having secured funding from Northern Heartlands Community Initiative Fund, the project started in April with a group of self selected individuals all with mild, moderate or severe mental health conditions. The sessions involved learning new skills such as whittling, mindfulness, making different items and art from natural products found in the woodland clearing, natural fire starting, foraging, preparing and making food for the group each week which would be cooked on the camp fire, making refreshments and drinks using fire and Kelly kettles. All participants were invited, but not expected, to take part in the different activities that were introduced each week or the regular tasks such as collecting wood, setting and lighting the camp fire and making tea/coffee, preparing and cooking lunch and tidying away and packing up at the end of the session. The sessions were informal. The participants arrived and were given time to make tea and talk with their peers and the facilitators. The group came together around the camp fire and the activity or activities of the day was introduced and participants invited to take part in which ever aspect they wished. Some participants chose to step back and take time out to sit by the river, go for a walk, talk to their peers or the facilitators. There was no pressure to engage and the participants were given time and space to choose how much, with whom and with what activities they engaged. After lunch was prepared and eaten, usually around the camp fire the participants were free to continue with their activity for a short time, converse with one another and or help clear up and pack up. As the researcher attended many of the sessions alongside the facilitators it was evident from observation week to week as the project progressed, that the participants started to build up a rapport with one another and the facilitators. The level of engagement increased alongside and a warm and supportive environment which started to develop. At this point it was unclear as to whether these anecdotal observations would translate in to significant shifts in the self reports and scores on the mental health and wellbeing scales applied.



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METHODOLOGY

The project recruited 16 self selecting male and female participants who were either signposted via the GP, other charitable organisations or through social and other media and advertising. Of the total recruited one participant dropped out before the project started, and a further 2 dropped out midway. One drop-out was due to work commitments the other was unable to provide a reason. The remaining group members attended weekly with minimal absences.

The sessions were semi structured involving a range of optional woodland activities, social peer contact, contact and interaction with facilitators, opportunity to be involved in making food and refreshments on camp fire, time to be alone, walking, tidying and packing up as detailed above in the introduction.

The methodology was a mixed method design using qualitative measures; interviews pre and post project, and quantitative measures; questionnaires at pre, midway and post project from which statistical analysis could be applied. The interviews pre and post were undertaken primarily over the phone by the researcher with several face to face due to circumstances.

The three questionnaires applied to measure different aspects of mental health were:
The Rosenberg Self Esteem Scale - A 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree." Rosenberg (1965). *The Warwick & Edinburgh Wellbeing Scale WEMWBS* (Tennant et al., 2007) which was an overall measure of wellbeing. The *Perceived Stress Scale* (Cohen et al. 1983) was also applied. These measures were used as they would capture wellbeing overall. As there were a range of mental health difficulties presented by the participants it was decided not to focus on specific measures such as anxiety or depression for example, but look at overall wellbeing. Using an overall measure like the WEMWBS captures symptoms of anxiety and depression amongst others, so these aspects would not be overlooked. Low self esteem and stress are linked to a broad range of mental health issues so it was deemed important to explore if there was a shift in self esteem and stress in addition to the wellbeing measure. It was hypothesised that participants' self esteem and wellbeing scores would increase and their perceived stress scores would decrease from the pre to post measures, indicating an improvement in their overall mental health and wellbeing. Questionnaires were given to the participants to complete before they attended their first session of the project in Deep Dale woods. They were given the same questionnaires at the midway point and end of the project. There was some missing data in terms of some midway questionnaires not being returned and a couple of participants not completing the final questionnaire and 1 participant was unable to complete the exit interview. However, these omissions were accounted for in the statistic analysis.

A nature relatedness scale was also applied (Nisbet et al. (2009). It was hypothesised that participants' nature relatedness, that is, their sense of connection and relationship with nature would increase throughout the project. This measure was applied to explore whether there was a



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direct correlation between feelings of close relatedness with nature and the other measures of mental health. It was hypothesised that an increased feeling of being close and related to nature may be correlated to improvements mental health and wellbeing.

Analysis & Summary of Quantitative Results

The Woodland Wellbeing project resulted in statistically significant increases from pre to post measures of self-esteem, wellbeing and nature relatedness, and statistically significant decreases in stress. This indicates that we can accept our hypothesis that the project did indeed have a positive impact on the participants' mental health as measured. Furthermore, we can also accept our hypothesis that an increase in relatedness to nature was observed and reported. Score changes over time for each measure can be seen below in the figures 1-4.

Changes in the scores of nature relatedness and self-esteem occur within the first half of the project, and then remain stable throughout, whereas the changes in stress and wellbeing show continuous improvement throughout the project. The data does not suggest any interaction effects of nature relatedness on the other variables. This suggests that there were variables other than simply feeling more connected with nature itself that contributed to the increase in positive measures of mental health. Such variables are explored within the qualitative aspect of the study by means of the thematic analysis undertaken on the participants' interviews. See qualitative analysis below.

Correlations

Correlations demonstrate significant relationships between self-esteem, perceived stress and wellbeing as can be seen in table 1. Whilst correlations were found between all measurements of nature relatedness, no relationships were found between this and the other variables.

Table 1
 Correlations between all measures

Variables	1	2	3	4	5	6	7	8	9	10	11
1. RSE											
2. RSE2	.82**										
3. RSE3	.68*	.92**									
4. PSE	-.61*	-.81**	-.87**								
5. PSE2	-.35	-.67*	-.70*	.76**							
6. PSE3	-.35	-.69*	-.85**	.71**	.63						
7. WE	-.75**	.88**	.74**	-.73**	-.63*	-.52					
8. WE2	.29	.67*	.74*	-.45	-.78**	-.59	.55				
9. WE3	.41	.77**	.84**	-.53	-.45	-.89**	.41	.62			
10. NR	.41	.34	.44	-.25	-.11	-.41	.26	.43	.44		
11. NR2	.18	.12	-.01	.23	.23	.07	.03	.28	.62	.84**	
12. NR3	.21	-.04	.12	.12	.38	-.19	.01	-.14	.25	.81**	.75*



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ANOVAs

A repeated-measures ANOVA was run to explore the effect of the project on self-esteem, perceived stress, wellbeing and nature relatedness. The results showed that significant increases over time were detected in self-esteem, $F(2, 18) = 7.53, p = .004$, wellbeing, $F(2, 18) = 5.91, p = .011$ and relatedness to nature, $F(2, 18) = 14.86, p < .001$, along with a significant decrease in perceived stress, $F(2, 18) = 9.78, p = .001$. Score changes over time can be seen in the figures 1-4.

Post hoc pairwise comparisons showed significant increases of self-esteem between the pre-test and mid-way test, $-0.310, CI[-6.05, -0.15], p = .039$, but not between these and the post-test. Significant increases were also found in nature relatedness between pre-test and mid-way test $-9.90, CI[-16.47, -3.33], p = .005$, and between pre-test and post-test, $-10.30, CI[-17.42, -3.33], p = .006$, but not between mid- and post- test. Significant decreases in stress were found between pre-test and mid-way test, $4.60, CI[1.04, 8.16], p = .013$, and between the pre-test and post-test, $6.30, CI[1.59, 11.01], p = .006$, but again not between mid-way test and post-test. No significant pairwise comparisons were found in wellbeing between any of the time points specifically.

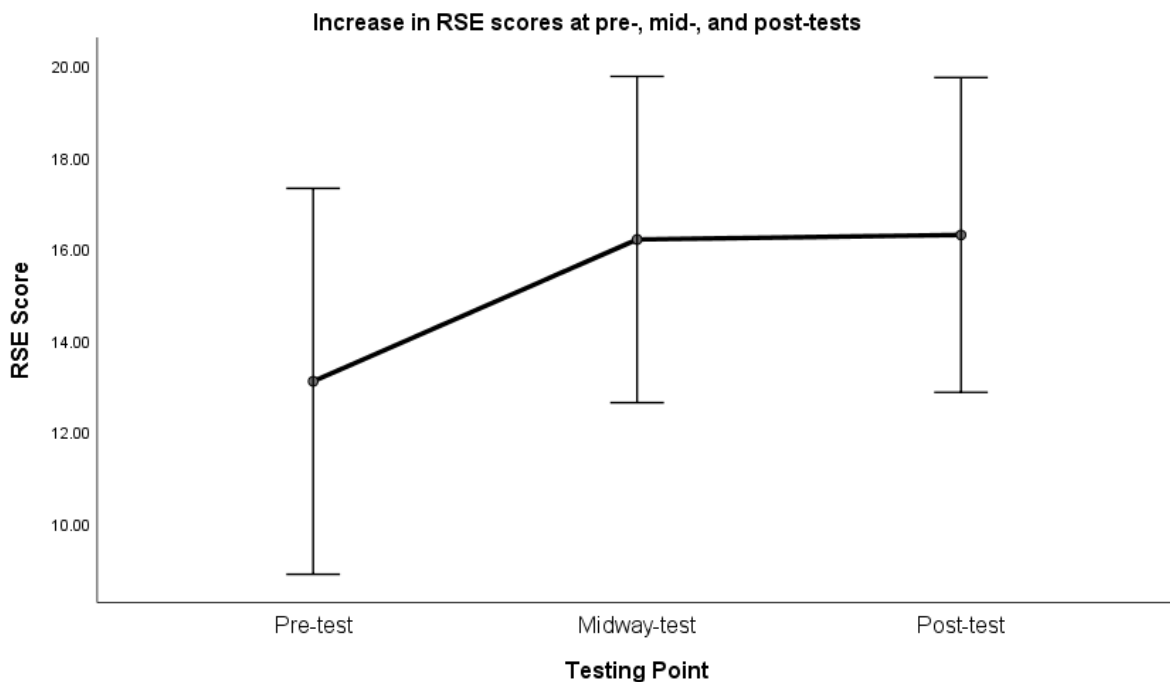


Figure 1: *Self-Esteem scores at pre-, mid-, and post-test measurements*



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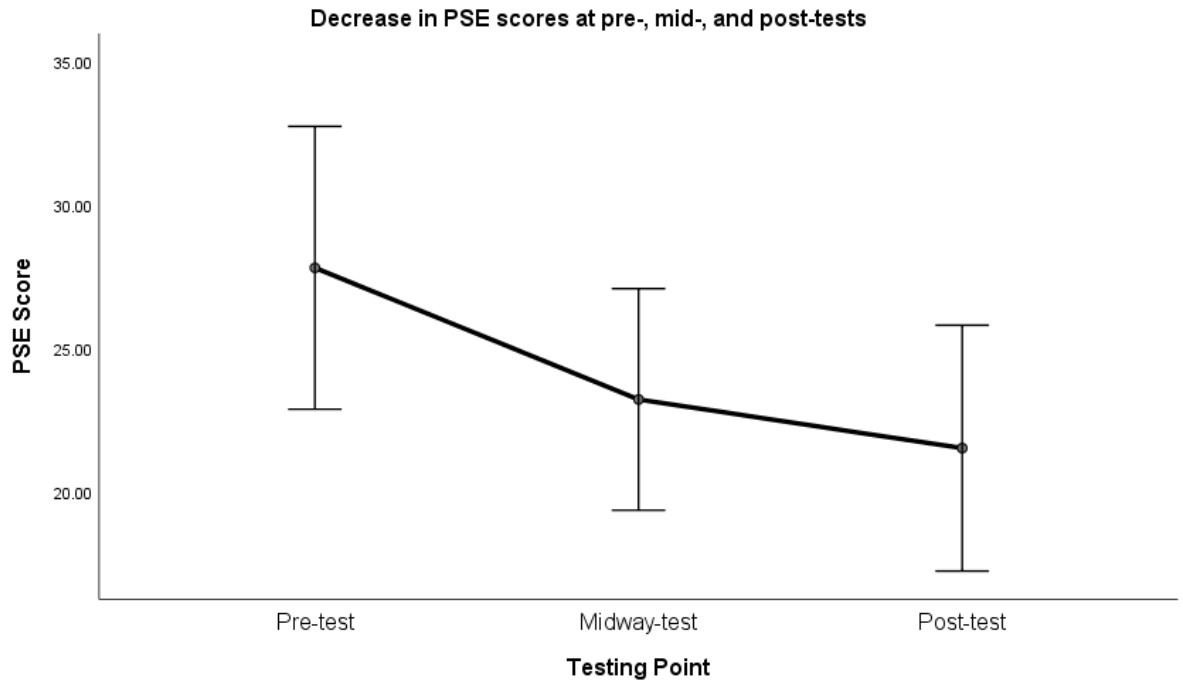
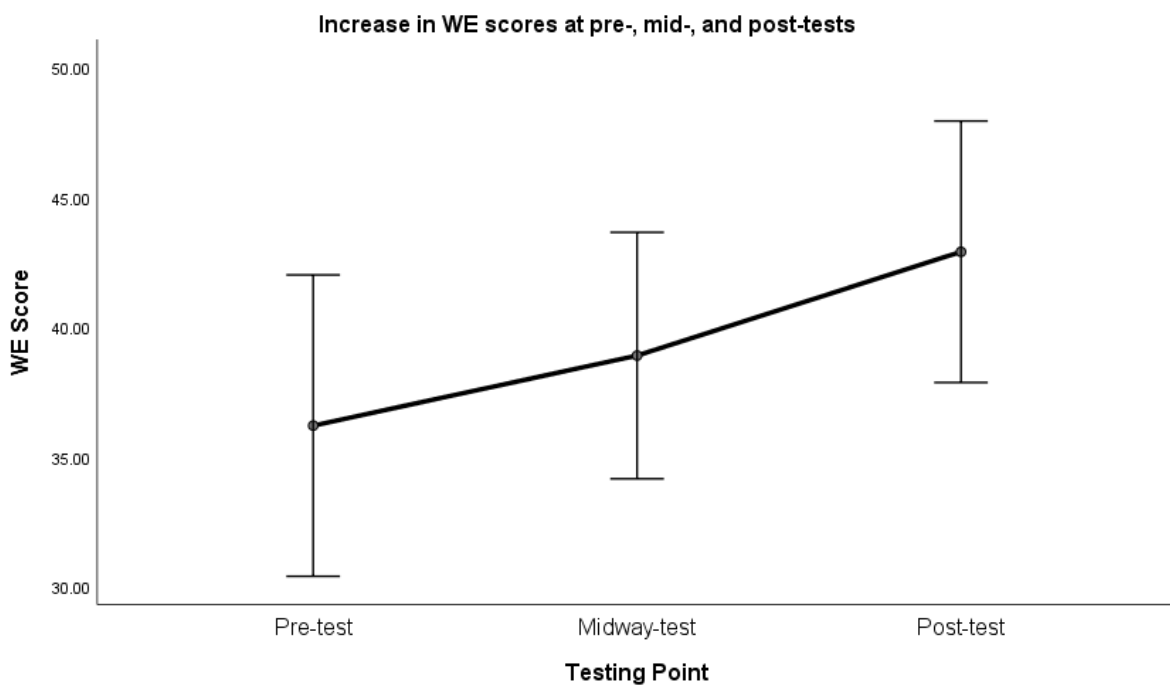


Figure 2: Perceived Stress scores at pre-, mid-, and post-test measurements



Figure

3: Wellbeing scores at pre-, mid-, and post-test measurements



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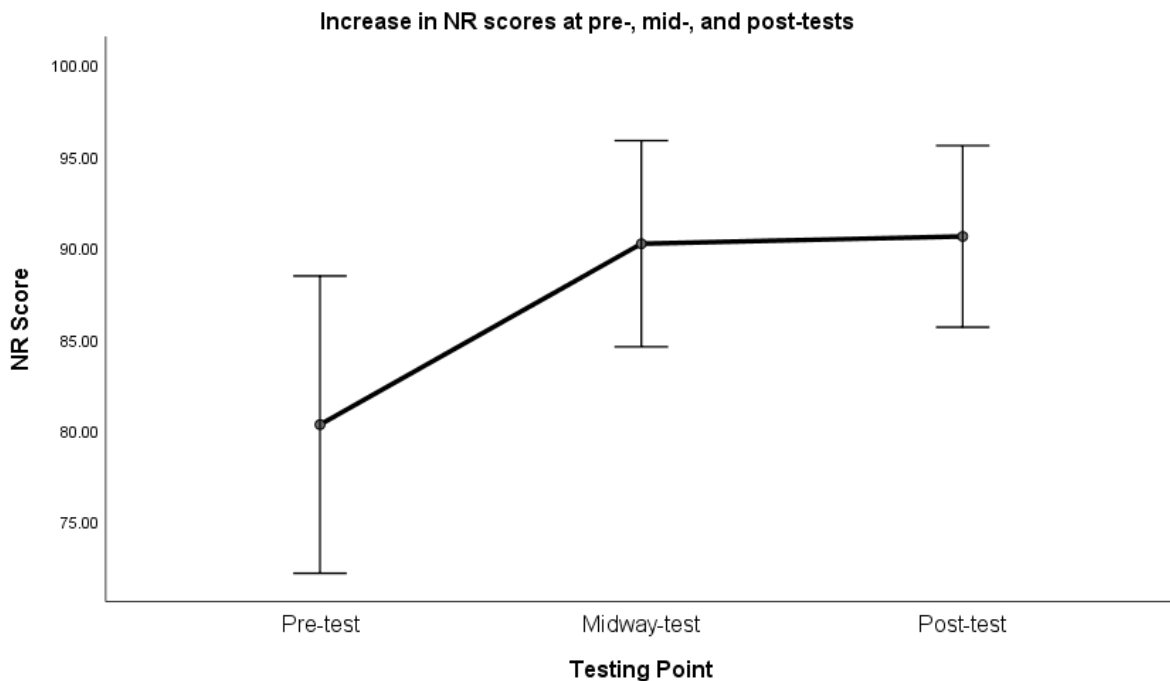


Figure 4: Nature Relatedness scores at pre-, mid-, and post-test measurements

Analysis & Summary of Quantitative Results

The initial interviews identified a range of current mental health issues that the participants were experiencing at the time of the project and their suitability to the project. The participants also shared some of their historical mental health issues. The following mental health issues/difficulties/conditions presented as being current or historical by those taking part: trauma, bereavements, loss, alcoholism, problem drinking, hyper-vigilance, social anxiety, generalised anxiety, depression, suicidal ideation, social isolation, agoraphobia, PTSD, low self esteem, low self worth, low self efficacy, anxiety, social anxiety and depression.

The purpose of doing the interviews was two fold. Firstly, we wanted to establish whether there was corroboration with the findings from the qualitative data, that is, that there was an overall improvement in mental health and wellbeing. Secondly, identify via thematic analysis what aspects of the project facilitated the improvement. Such understanding is fundamental in planning and implementing future projects of its kind as it is important to know why the project was helpful in order that this can be replicated. The data from the exit/post project interviews was transcribed by the researcher and an analysis undertaken in alignment with the stages described by Braun & Clarke (2006) as essential aspects of a qualitative thematic analysis. During the transcribing process a notation of initial ideas and concepts were recorded in alignment with thematic/narrative analysis



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protocol (Riessman, 1993). A revisiting of the transcriptions was undertaken several times in order to facilitate an immersion in the data by the researcher.

The next phase of the analysis involved coding the data using the notes made during the initial stage of immersion identifying ideas, concepts and patterns across the different interviews relevant and poignant to the research hypotheses. After this stage themes were identified by means of thematic maps from all of the the codes identified from the data and combining codes that were strongly related and considered to sit under the umbrella of a single theme. Any themes that needed merging, creating or discarding were evaluated by revisiting the data and codes resulting in the emerging themes being labelled and defined. These themes are relevant taking into account the interview data produced by all of the participants. Some themes overlap and all are interrelated however they all appeared significant and distinct in themselves deserving individual categorization.

The process of the thematic analysis as explained above identified the following themes that emerged and were evident from the data: “Nature Based Environment”, “Safe Space”, “Peer Support”, “Community”, “Activities & Learning”. An analysis of each theme was undertaken in terms of how it was relevant to the research questions and evaluation of the impact of the project as a whole. All themes overlap as they are all interrelated. Nevertheless, they were all identified as being important factors in of themselves for facilitating a positive shift in mental health.

NATURE BASED ENVIRONMENT

This was the most explicit and clear theme identified in the qualitative data. All of the participants had self selected to take part in the project taking place outdoors in a woodland area and all participants reported having a positive connection/relationship with nature before they started the project. It was therefore not a surprise that the theme of ‘nature environment’ was identified from the interviews as an important theme. For most of the participants this relationship was developed and fostered in childhood. Not only spending time in nature as an adult but also engaging in activities with and around nature enabled them to reconnect with the memories, presence, freedom and playfulness of being a child in nature.

A significant increase of relatedness or connection to nature was observed in the quantitative data as seen above, despite not translating statistically to a direct link or correlation to the other positive shifts in mental health. However, this current theme of “Nature Based Environment” which is distinct from nature relatedness, highlights that participants did feel being in the natural environment of a riverside woodland area had an impact on the efficacy of the project but in the respect that it acted as the central point from which the other themes were able to flourish. Thus, it provided a foundation on which a “safe space”, “Peer Support”, “Community”, “Activities & Learning” could be fostered. Providing a calm, peaceful environment which contributed to the safe space from which the learning and activities could take place, enable the participants to work



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together, and connect. The spacious and expansive environment provided a physical space in which they could spend time away from the group and be alone if they needed some time to themselves and/or were feeling overwhelmed. As it was less noticeable if participants did not want to be involved in an activity as there was so much space, the pressure that the participants felt in other therapeutic or social groups was reduced - "You could get involved with the activities that were going on, be talking to the others in the group or the facilitators or just go and sit by the river or go off for a walk and it felt like no one noticed or minded as we were all spread out".

This theme was also important as participants also reported that as a result of spending time outdoors in the woods for the project they were now "going out more into natural environments" throughout the week, taking "longer and extended walks" than they had been doing. Some participants reported how they were involving their families in this increased time outdoors and interacting with nature. "I'm taking my grandchildren out more for walks and showing them and doing things that I've learnt from the project. I'm seeing nature again as if through children's eyes, it's great". Another participant was taking her child out more - "I now go foraging with my daughter, taking bits and pieces home from our walks and we are also even cooking things on the fire at home. Its fun and she loves it. We're enjoying it as a family". This further highlights how the participants time at the Woodland Wellbeing project inspired and encouraged them to extend their experiences in nature to other areas of their lives such as their families and relationships. One participant described nature as being "a second skin" and was helping him in terms of "just getting out of the house, just getting there. And it's so much easier walking into the woods than in to a room where everyone is staring at you. There are no walls in the woods. I feel free and safe at the same time".

Participants also found that doing the different activities they were learning new things and different ways of interacting with nature - "it helped me learn to enjoy nature in different ways, in ways that I didn't before. I used to go for a walk but wouldn't really see anything. I'd be stuck in my head, stuck with my thoughts and anxiety. The mindfulness walk and foraging really helped. Now I'm looking around. I'm more mindful, I'm slowing down, noticing things, picking up things on the ground and I feel calmer, I enjoy it more". It was clear that spending time in the woods and engaging with it strengthened the relationship with nature and participants were more aware and noticing more. They have become more mindful and present in nature. Several participants shared how they would often just go and sit by the river and listen to the water or watch the birds if they were feeling low or overwhelmed or need some time away from the group and that having done this they felt more relaxed, unpressured and were more likely to do the same when they went out on their own, "taking time to pause and be quiet, I never did that before, I would go on a walk with the aim to to get somewhere or get some exercise not for the enjoyment or peace itself". The participants were able to take what they had learned in the mindfulness session and use in in other sessions and outside of the sessions.

In addition to slowing down, noticing more, being more present and mindful, the environment of the woods was "time out", "peaceful", "calming", "in the moment", "relaxed" whereby they could



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“forget about [their] problems” and “feel less stressed”. It was also interesting that participants were more likely to get out in bad weather now after being involved in the project. There were quite a few days throughout the project where it was raining and cold and although many had said in the first interview that weather was a barrier to spending time in nature participants seemed to feel this as less of a barrier now; “I’m much more likely to get outdoors when is bad weather than I ever would before. I actually quite enjoyed when it rained in the woods – we had the tarpaulin over the fire and we all huddled in – brought us together – literally!”. Participants found that it was “such a beautiful environment” “it was like a breath of fresh air”, “life feels more simple in the woods and it helped quieten my busy, chaotic mind” “I wasn’t just reconnecting with nature. I was reconnecting with myself.”

It was not simply being in nature in an of itself that was significant in being facilitative of wellbeing and healing but the engagement they had with it in terms of mindfulness and the activities and learning of new skills which connects and leads on to the next theme.

ACTIVITIES & LEARNING

The activities that were introduced to the participants were an optional offering. There was invariably a new activity or something to learn each week and participants may continue with something they were working on the previous session, try something new, just talk and be in the company of their peers of the facilitators or take some time out for themselves on a walk or sitting by the river. All participants expressed at the beginning of the project that they wanted to learn more skills. These informal semi structured sessions enabled the clients to choose their level of engagement and interaction with the other peers. This is also where we see an overlap with the “safe space” theme; there was no pressure, and also the “community” theme as the activities and skills brought the participants together either working as a team or alongside one another. An increase in self efficacy was reported as a result of engaging in the tasks: “I felt out of my comfort zone but it felt safe to get it wrong or not know how to do something, but it felt really good when I made something or learnt something new”, “it gave me confidence, as there are many things I wouldn’t have tried if I was on my own or in a different environment”, “I’ve also used some of the skills I’ve learnt to use outside of the sessions”. It was evident that having a focus of the session even if participants didn’t get involved directly was “something to talk about and direct attention away from me and my anxiety”. Team work was also an important part of building the social support which overlaps with the theme of feeling a strong sense of “community” amongst the group. The “activities and learning” aspect of the sessions was an important focal point of the project. It helped participants gain self esteem and self worth “I hadn’t felt like I was good at something for a long time, I was very low in confidence and self esteem, but I loved feeling like I’d achieved something whether it be carving or whittling a spoon or making a bow and arrow, just feeling like I can do things again, that I’m not useless and it was fun, we had a laugh too”. This comment also highlights how bonding doing the activities together were. They felt as though they were “all in the same boat”, “we understand each other as were all struggling even if with different things, so there was no judgment when we were learning something new, it felt safe and ok to get



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it wrong". This overlaps and interrelates with the themes of "safe space" and "community" as the focal point of the activities enabled the sense of community to foster as they were learning new things together and build relationships and trust with one another. The element of setting the camp fire, foraging, preparing food, cooking and making refreshments for the group was also an activity for every session and overlapped and interrelates with the theme of "community" which is discussed further below.

COMMUNITY

It was clear from the interview data that there was a strong sense of community and belonging that the participants felt towards the project and each other. Although this theme is closely related to the "peer support" and "safe space" themes it was evident that it was important to highlight as a stand alone theme. One aspect of this which was particularly striking was that many people reported how important it felt to be "helping others, feeling useful and giving something back". This really helped the participants feel a sense of self worth, self efficacy and a sense of belonging; "I enjoyed setting the fire as it was important focal part of group, sitting around the fire and talking or eating or whatever else we were doing, a lot of it was around the fire so I enjoyed being one of ones that set it, it gave me a purpose, I felt I was doing something for the group", "I felt like I was giving back, preparing the food, its very nurturing isn't it? Making food for others. And I don't often really cook as I live on my own so it was a real pleasure to have the opportunity to prepare the lunch and help with that, it was something I could do for everyone, I really enjoyed that". Engaging in team work really helped to create cohesion in the group whether that be with an activity together, cooking or foraging together; it helped create a sense of unity and social connection. A powerful finding of the group was the networking that the participants made in terms of making contact with each other outside of the project. Some if this was social contact on the phone, text, social media and also connecting at other peer support groups in the area. Some participants shared information, signpost to self help resources other groups and began to support one another outside of the group. One of the main hopes that every participant mentioned in the first interview was meeting new people and making friendships. Social isolation was an important issue that kept arising within the initial interviews. Due to the struggles these individuals had with low self esteem, social anxiety, depression and anxiety it was at times difficult to reach out to others, trust others, feel comfortable and even leave the house or get out of bed at times. The participants became able to trust one another which was partly through getting to know each other, having shared experiences at the project sessions but also knowing that they were all struggling with some sort of mental health difficulties. The participants reported feeling connected, that they established a sense of value, identity and purpose within the group. They felt accepted by the group, there was a sense of camaraderie and they contributed to the group in different ways. Having a regular environment in which they increasing felt these things contributed to a greater sense of self esteem, wellbeing and left them less stressed and anxious in this social setting. This sense of greater self esteem also for some translated to their life outside of the project. One of the participants returned to employment during the project after a period of absence due to



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depression and anxiety. And several started voluntary work locally. These participants gained confidence in this group setting to go on to face these new situations.

PEER SUPPORT

This theme was also strong throughout the data. As mentioned above in the “Community “ theme there was an understanding of commonality amongst the group; “it was great to meet others that were like minded”, “I felt I could relate to others in the group”, “it felt like people weren’t judging me”, “there wasn’t that stigma, you know, because we all knew we all had our struggles and it was ok”. As the participants started to share their experiences and stories they were able to recognise the similarities amongst themselves. They started to look out for one another and notice if someone was not feeling well or was upset. “It felt like two-way traffic, we were often giving advice to someone if they were feeling low and maybe tell the facilitators to watch out for them and maybe talk with them”, “it also felt as if people were not only happy to listen but they understood and they weren’t there to judge but just listen and be supportive”. What was an interesting finding which related this theme with “community” was the “giving back” element. It was as meaningful and transformative to be contributing and helping others as it was to receive help and support from others. There was a sense of a support system which was nurturing which encouraged honesty and openness, the ability to offload, engage in friendship and feel comfortable within the social group. The participants also built up a good relationship with the facilitators and felt they could trust and confide in them also. This leads us on to on the final theme of “safe space” as naturally being able to trust those in the group including the facilitators contributed to feeling the environment was safe emotionally.

SAFE SPACE

The feelings the participants expressed about a sense of belonging and “community” alongside the project being in a “nature based environment” and feeling a strong sense of “peer support” all contributed to the theme of “safe space” being identified. The key concepts that emerged from the data were that there was no a pressure to talk and engage if they were feeling low; “there wasn’t that pressure, if you didn’t want to talk or get involved and you just want to be by yourself, you could just go and sit by the river....I think if there had been pressure to talk or be involved there would have been days when I wouldn’t have come”. The space that the facilitators provided created a relaxed atmosphere which was semi structured and informal. There was a general structure to the day but the facilitators were flexible and open to suggestions if the participants had ideas or wanted to continue with an activity from the previous week. There was also a freedom and space to opt out of any activities or group tasks. This freedom to choose their level of engagement was highly beneficial for all and actually encouraged them to attend if they were feeling low or struggling in any way. The facilitators were reported as having a “light touch” and being “non intrusive” and “not digging too deep” but also there to listen when the participants were ready and wanted to talk; “I felt they accepted me and there weren’t any expectations which was good and you could take time out if you needed. No one judged you”. The support and gentleness of the



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facilitators coupled with the peer support and being in a nature based environment provided a safe space or environment which contributed with the positive shift observed in the participants.

CONCLUSION, DISCUSSION & LITERATURE REVIEW

The quantitative data analysis indicated a significant beneficial shift in scores of wellbeing, perceived stress and self esteem. Although there was an increase in relatedness to nature the correlational analysis implied that this was not linked directly to the increase in mental health measures. Thus, the improvement in mental health for the participants was not due to simply feeling more connected or a greater sense of relatedness to nature but that there were other variables and aspects of the project itself which facilitated the shift. Nevertheless, the qualitative data analysis identified that “nature based environment” was indeed a helpful variable in terms of participants feeling calmer, relaxed, peaceful and the environment allowed the space to engage with the group and activities, if and when ready. This was a platform on which the other aspects of the project such as providing a “Safe Space”, “Peer Support”, “Community”, “Activities & Learning” could take develop and lead to an improvement in self esteem, wellbeing and perceived stress.

It is important to note that as the researcher was present at many of the sessions, and also led the mindfulness session. As a result one must consider the concept that some of the participants may have felt inhibited to report negative feedback to the researcher. However, having subjectively observed the improvement in the participants, it was felt that if there was researcher bias, that it was minimal. The self reports of improved wellbeing were congruent with the observations and interactions with the participants throughout the project and indeed the quantitative measures. Furthermore, as a good working relationship was built up between the researcher and participants it was postulated that the participants would actually be more open about their feelings regarding the project whether those were negative or not. The participants were overwhelmingly positive about the project and struggled to name any aspects that were ‘unhelpful’ or ‘did not work well’. This outcome was congruent and consistent throughout the group.

The positive outcomes recorded by the Woodland Wellbeing project 2019, and projects of its kind demonstrate how effective this kind of intervention can be for improving wellbeing and mental health conditions. There is an increasing body of evidence to show, of which this study contributes, that interventions in a natural environment are highly beneficial. Furthermore, this research highlights the other important themes that facilitated the improvement seen. Such factors as having a safe space, building a community and a sense of belonging to that community, having support of like minded peers which have a commonality of experience, and engaging in activities have all been identified as an important aspects of healing. Without having a similar project run in a different setting it is impossible to show how results this intervention would have compared. Nevertheless, the nature based setting did appear to foster and facilitate the other factors to flourish. Many of the participants were involved in other groups and interventions but suggested that being in the woods made it a unique and special experience. This was particularly so as many



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of the participants did not get out into nature as much as they would have liked. As a result of the project participants were spending more time overall than they have previously in nature, and were seeing the calming benefits as a result. Research has shown “as of the 1980s, we who live in highly industrialized nations began spending more than 90% of our lives indoors and that by various estimates our time outside has since shrunk to 1%–5%” Chalquist (2009). It is very likely that this withdrawal from nature has had an effect on our mental health. We can understand this anecdotally but there is also an increasing body of research that reflects this.

Research in the environmental psychology field highlights that some of the physical and psychological issues we face in our current society are associated with an increasing disconnection between individuals and communities and the natural environment. This disconnection between people and nature causes a disruption of the relationship, and as a result negatively impacts on our wellbeing (Wilson and Kellert, 1993). It was evident in the current research that spending more time in nature within a community did result in participants feeling more connected to nature and each other, and less socially isolated. This reduction in social isolation may indeed have impacted positively on the other aspects of mental health, including self esteem. Wilson (1984) suggested that humans are “hard-wired” evolutionarily have an emotional and psychological connection to nature. Ulrich et al., (1991) & Ulrich (1984) reported that the “restorative” effects of nature based environments eased “mental fatigue” and stress based acute physical symptoms imposed by modern living and working conditions.

The NICE guidance on Physical Activity and the Environment (2008) suggested a need for more research to explore how nature based environments impacted on behaviour and wellbeing and other associated physical and mental health benefits. This current research sits an increasing body of research which continues to produce evidence showing that the impact of the nature based environments and interventions outdoors do positively impact on human mental and physical health, and furthermore that effects are wide ranging and significant.

“Landscapes have the potential to promote mental well-being through attention restoration, stress reduction, and the evocation of positive emotions; physical well-being through the promotion of physical activity in daily life as well as leisure time and through walkable environments; and social well-being through social integration, social engagement and participation, and through social support and security.” (Abraham, Sommerhalder & Abel, 2010, p59.) “The relationship between landscape and health shows two main features: first, health-promoting landscapes contribute to healthy lifestyles in terms of physical activity and mental and emotional relaxation. Second, health-promoting landscapes promote the acquisition of resources for health such as social support, concentration and emotional stability”. (Abraham et al., 2010 p66.) The current research corroborates these findings and demonstrates the multi faceted impact of projects like the Woodland Wellbeing project 2019.

“Semi-structured interviews with a sample of participants also revealed that the quiet and uncrowded forest environment was particularly beneficial to the participants with significant



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mental ill-health, as they can be conscious of other people around them. In addition, the sense of escaping from everyday life, the beauty of nature, and having something interesting to look at in the forest environments were important elements for improving their mood, encouraging communication, and motivating regular participation. Despite the difficulty of separating the effects of being in the forest from the social interaction benefits or physical exercise, it can tentatively be concluded that the “positive” environment that forests provide can act as a first step in encouraging those with significant mental ill-health to reengage with society”, (Iwata et al., 2016). Again, the current research corroborates these findings; that there was a dual impact of both being in nature and the social aspect of peer support, community, team work which contributed to the benefits.

“Group walking schemes and other activities in natural environments may be an important public health promotion intervention for mental health” (Marselle et al., 2018). Lee et al., (2017) highlight that “forest based therapy is an emerging and effective intervention for decreasing adults’ depression levels. Future studies assessing the long-term effect of forest based therapy would be beneficial”. It is indeed recommended that more projects like the Woodland Wellbeing project 2019 are funded. Further follow up research would explore whether the findings found in the current research were stable over time. It would also be beneficial to conduct a longer term project and explore whether self esteem and some of the other more complex mental health symptoms may continue to improve over a period of time. It is hypothesized that there would indeed be a further improvement in mental health measures if this project was continued. The Woodland Wellbeing project 2019 provides a helpful framework on which future nature based projects could be structured to improve the mental health for local communities.

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REFERENCES

Abraham A, Sommerhalder K, Abel T (2010) Landscape and well-being: a scoping study on the health-promoting impact of outdoor environments. *Int J Public Health* 55(1):59–69

Braun V., Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006;3(2):77–101

Chalquist (2009) A look at the ecotherapy research evidence. *Ecopsychology* 1 64-74.

Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 386-396.



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Iwata, Y.; Ni Dhubhadin, A.; Brophy, J.; Roddy, D.; Burke, C.; Murphy, B. Benefits of Group Walking in Forests for People with Significant Mental Ill-Health. *Ecopsychology* 2016, 8, 16.

Lee, I.; Choi, H.; Bang, K.-S.; Kim, S.; Song, M.; Lee, B. Effects of forest therapy on depressive symptoms among adults: A systematic review. *Int. J. Environ. Res. Public Health* 2017, 14, 321.

Marselle, M.R.; Warber, S.L.; Irvine, K.N. Growing resilience through interaction with nature: Can group walks in nature buffer the effects of stressful life events on mental health? *Int. J. Environ. Res. Public Health* 2019, 16, 986.

Nisbet, E. K. L., Zelenski, J. M., & Murphy, S. A. (2009). The Nature Relatedness Scale: Linking individuals' connection with nature to environmental concern and behaviour. *Environment and Behavior*, 41, 715- 740.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Riessman C. K. *Narrative analysis*. London: Sage; 1993

Tennant, R., Hiller, L., Fishwick, R. *et al.* The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health Qual Life Outcomes* 5, 63 (2007).
<https://doi.org/10.1186/1477-7525-5-63>

Ulrich 1984 View through a window may influence recovery from surgery. *Science as Culture* 224 420-21.

Ulrich, R S, Simons, R F, Losito, B D, Fiorito, E, Miles, M A & Zelson, M 1991 Stress recovery during exposure to natural and urban environments. *Journal of Environmental Psychology* 11 201-30.

Wilson, E O & Kellert, S (Eds.) (1993) *Biophilia Hypothesis - A collection of invited papers supporting & refuting the biophilia hypothesis*, Washington DC, Island Press.