

Exploring nature-based interventions as an ecosocial method in social work: insights from Ireland, Finland and Italy

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Introduction

Ongoing global ecological and socioeconomic crises are disproportionately experienced by the most marginalised people and regions of the world. Crises such as political unrest, climate change and an unstable labour market force people into precarious situations that impact their health and social inclusion possibilities, and affect their overall wellbeing. Primary challenges include experiencing symptoms of anxiety and depression, facing issues of social isolation and loneliness, and encountering unemployment. These are not only precarious situations, but also wicked problems that are complexly interconnected within social, political, environmental and economic facets of life. Long-lasting solutions that systematically address these interconnections and yield positive effects for people in precarious situations are required as a matter of urgency.

In this chapter, we discuss nature-based interventions (NBIs) as an ecosocial method that social work practice, among other professions, can incorporate to address various wicked problems faced by people in precarious situations. Ecosocial methods are practice examples of an ecosocial approach in social work that combines economic, social and ecological perspectives towards addressing human wellbeing and sustainable community development (Matthies and Närhi, 2016). Through case studies from Ireland, Finland and Italy, we discuss how NBIs could be a promising innovative method that promotes the health, social inclusion and wellbeing of people facing precarity – among others, youth experiencing unemployment, early leavers from education and training, and people with intellectual and/or physical disabilities. The significance of this chapter lies in providing valuable insights into the experiences of young people facing precarity engaged in NBIs through these case studies, while adding to the conceptualisation of NBIs as

a form of ecosocial work in practice. Furthermore, its significance extends to contributing to the wellbeing of young people in precarious situations, as it has the potential to inform future social work education, research and practice. While acknowledging the limitations of these interventions through a critical reflection, we argue that NBIs have the potential in social work practice to address various challenges faced by people experiencing precarity.

This chapter is structured into five main sections. First, it introduces NBIs by providing a definition, their benefits and current uses in social work and other disciplines, and discussing pertinent theories. Next, it presents the topic of young people in precarious situations as the research context. Then it delves into the case studies that illustrate NBIs in Ireland, Finland and Italy. Following this, the benefits of NBIs, as displayed in the case studies and relevant literature, are discussed, alongside a critical reflection of the limitations of NBIs and their relevance for social work. Finally, the chapter concludes with a summary of the key points.

Nature-based interventions

Definition and benefits

NBIs are concisely defined by [Shanahan et al \(2019\)](#) as goal-based activities, programmes or strategies carried out within the natural environment to improve human health, wellbeing and enhanced relatedness with nature. NBIs are also being utilised to promote human development, quality of life and social inclusion. The natural environment discussed here refers to organic environments consisting of relationships between living organisms, ecosystem processes and natural elements, which can be found in rural and agricultural environments, forests, mountains, gardens, urban parks and water ([Boetto, 2017](#)). NBIs are transdisciplinary and are carried out by professionals in practices such as youth work, community development, primary healthcare, psychotherapy, occupational therapy, social or health rehabilitation and social work. As discovered in a systematic review on NBIs and wellbeing, [Obeng et al \(2023\)](#) found that common NBIs for young people include wilderness/forest therapy, animal-assisted interventions (AAIs), outdoor adventure interventions, horticultural/garden interventions, social/care farming, environmental conservation, surfing therapy and sustainable construction.

The intrinsic value of nature on human health and wellbeing is becoming increasingly recognised, researched and reported ([Silva et al, 2023](#)). Indeed, its benefits are particularly important for people in precarious situations who already face complex life challenges. The natural elements of NBIs enhance many possible benefits to humans which have been evidenced throughout research, such as:

- illness prevention ([Frumkin et al, 2017](#));
- stress reduction ([Corazon et al, 2018](#));

- improvements in physical, mental, social, emotional or spiritual health and wellbeing (Shanahan et al, 2019; Taylor et al, 2022);
- maintaining an ability to work (Adams and Morgan, 2016);
- increasing self-esteem (Barton and Pretty, 2010);
- enhancing social inclusion (Kogstad et al, 2014);
- improving nature connectedness (Silva et al, 2023);
- boosting care relation to natural world (Martin et al, 2020); and,
- supporting rehabilitation (Vibholm et al, 2020).

Although the primary focus of NBIs is on improving the social and personal outcomes of humans, the impacts of NBIs can go beyond humans to benefit nonhuman animals, plants and ecosystems. As research shows, spending time in nature can increase the pro-environmental attitudes and thus pro-environmental behaviours of humans, such as voting for parties with pro-nature conservation policies, and engaging in biodiversity conservation, energy efficiency and recycling (DeVillie et al, 2021; Silva et al, 2023). Enhanced nature connectedness can also impact structural change and improve public support for a transition to more sustainable cities, which can progress to addressing the global sustainability crisis and achieving sustainable development goals (Ives et al, 2018). Another more-than-human benefit of NBIs is the potential positive impacts on animals through AAIs. Caring for animals' welfare and wellbeing is a core component of care farms (Moriggi et al, 2020) and equine-assisted services (Conway and Barrett, forthcoming). Valuing the animals as collaborators and partners in AAIs and focusing on animal health, wellbeing, environmental and living conditions, can support the ethical inclusion of animals to produce a more-than-human benefit (Ng and Pfeiffer, 2023; Conway and Barrett, forthcoming).

Theoretical understanding

By focusing on the key elements that underpin NBI implementation, various theories can explain the dynamics involved and the wellbeing goals that NBIs seek to achieve. Regarding the natural setting of NBIs, the therapeutic benefits have been previously noted and are related to the biophilia hypothesis, stress reduction theory and attention restoration theory (Roberts et al, 2020). The biophilia hypothesis posits that humans have an innate predisposition to connect with nature, which leads to an improvement in wellbeing (Kellert and Wilson, 1993; Wilson, 1984). This connection occurs as a result of the primate genetic evolution of affiliating with other life forms and choosing certain landscapes that has been ingrained in humans over time (Wilson, 1984). Besthorn and Saleebey (2003) have further explained that the biophilia hypothesis corresponds with social work values, such as the need to recognise and respect the intrinsic worth and dignity of human

beings, and the connections of humans to nonhuman nature. Stress reduction theory argues that certain aspects of the natural environment, like beauty, sound and calmness, can trigger a positive emotional response leading to stress relief (Ulrich et al, 1991). Cognitive functioning can also be enhanced through immersion in nature (Atchley et al, 2012). Attention restoration theory identifies that contact with nature may lead to a recovery from direct attention fatigue and enhance the capacity to focus (Kaplan, 1995). As Mann et al (2021) discuss, learning in a natural, outdoor environment can reduce impulsivity and inattention, promote collaboration and conflict resolution, and therefore provide the opportunity for increased learning possibilities.

Meaningful activities in and with nature are largely connected to self-determination theory, social learning theory and strengths perspectives. Self-determination theory explains how nature-based activities can improve the mindset of people, enabling them to perform different tasks independently, and thereby gaining confidence, mastery and a sense of accomplishment (Kogstad et al, 2014). Social learning theory explains how nature-based activities involve the observation of patterns of prosocial behaviours from animals (Macháčková et al, 2021) and positive lessons from trees (Milligan and Bingley, 2007). Also, strengths perspectives are implicit in nature-based activities as they promote the acquisition of new skills and competences, and enable people to build resilience in the face of challenges (Obeng et al, 2023).

Several theories such as social capital theory, attachment theory and community development perspectives can explain the dynamics involved in the community and social context elements of NBIs. Social capital theory can address the social connection and relationships (between human and human, and human and nonhuman) nurtured during the interventions. These connections lead to the development of social support for the participants of NBIs. Warber et al (2015) found that nature immersion in a camp setting encouraged bonding among humans and enhanced connectedness with nature. Similarly, attachment theories can explain the bonds that are formed between humans and nonhumans in AAIs. Moreover, social change and development and critical perspectives such as anti-racism, anti-oppression and ecofeminism are also implicit in the social element of NBIs (Slattery et al, 2022). Direct contributions to the communities and natural environments where NBIs are undertaken also reflect community development perspectives. Obeng et al (2023) reported that certain NBIs directly contribute to preserving and protecting the environment, enhancing local food and biodiversity, and building community cohesion.

Research context: young people in various precarious situations

Precarity is discussed widely throughout economic, sociological, philosophical, health and anthropological literature. It is a multistranded concept which is

interchangeably used with terms such as ‘precarious’, ‘vulnerable’, ‘at-risk’, ‘displaced’, ‘disadvantaged’, ‘marginalised’ and so on (Faraday, 2021). The terms ‘precarity’ and ‘precarious situations’ are used interchangeably in this chapter to categorise the many difficult situations experienced by the young people in our subsequent case studies. Precarity is described as structural situations or circumstantial contexts which are lacking certainty, stability, strength, predictability, longevity, security, safety, regularity or favourable conditions (McKee et al, 2017). This instability can negatively affect people’s identity, lifestyle and sense of purpose or meaning in society (Tejerina, 2019). Precarity unequally affects marginalised, poor and disenfranchised people (Kasmir, 2018) and can lead to depression, anger, marginalisation, anxiety and paranoia (Standing, 2011). It can also restrict or limit a person’s ability to access resources required to maintain a good and flourishing life (Tejerina, 2019), which is of central concern in social work.

Three main categories of people in precarious situations are discussed throughout the pertinent literature: those with underlying risks, those at risk of disengaging from school, work or their community, and those who were already disengaged from school, work or their community. As Obeng et al (2023) show in their literature review on NBIs for young people in precarious situations, underlying risks of precarity can include behavioural, emotional and/or social difficulties, substance misuse, family-related challenges such as abuse, neglect and/or trauma, and/or insecure housing and/or homeless. Risks also include low socioeconomic and/or rural background, being an asylum seeker, migrant or refugee, minority ethnicity and/or from an Indigenous background (Yates and Payne, 2006). Young people who are at risk of becoming (or are already) disengaged from school, work or their community may have difficulties with education or employment due to learning difficulties and/or special educational needs, health complications and/or disabilities, truancy and/or school resistance, offending behaviour or being at risk of not achieving educational goals (Yates and Payne, 2006; Sadler et al, 2015). They may be completing other duties, such as fulfilling parental or care roles which negatively impact their ability to contribute to school, work or their community (Sadler et al, 2015). These risks and experiences of exclusion can exacerbate their precariousness in society. The main features of precarity experienced by the young people in our subsequent case studies are unemployment, early leave from education and training, and mental and/or physical disabilities.

Case studies

The purpose of these case studies is to conceptualise NBIs by providing different representations of them, to show how they operate in real-world contexts across three European countries and to help illustrate the meaning,

application and benefits of NBIs. The data from these cases are taken from PhD research projects conducted by early stage researchers in the ASTRA project. The results are analysed in the subsequent discussion section.

Working with horses to enhance the social inclusion of people with disabilities: a case study from Ireland

Despite the Irish government's efforts to promote inclusion and reduce inequality, people with disabilities face a higher risk of social exclusion compared to their peers without a disability (Eurostat, 2022), and their inclusion possibilities remain inadequate (Sprong and Maître, 2023). One solution being utilised to enhance the social inclusion of people facing precarity are vocational education and training (VET) initiatives which provide alternative education, skill development and personal development opportunities (Conway and Barrett, forthcoming). VETs specifically focus on providing opportunities to enhance labour market integration (Bartram and Cavanagh, 2019), thus improving social inclusion possibilities.

The NBI in our first case study provides a nature-based VET programme for young people with disabilities in Ireland. This VET initiative is a three-year, full-time Equestrian Training Programme (ETP) which supports the students in developing their knowledge, skills and competence in a broad range of equine skills, and successful graduates qualify to work in a variety of equine sectors through a formal Quality and Qualifications Ireland Level 4 Major Award in Horsemanship (Conway and Barrett, forthcoming).

The data derive from 32 hours of participant observations of eight students engaged in the ETP. Qualitative data were collected by the researcher whose role was observer as participant; therefore, their role was transparent and they took detailed fieldnotes as they engaged in various activities alongside the students, such as attending lessons, grooming horses and mucking out stables. The participants were aged between 17 and 24 and were at risk of social exclusion due to their disability. The staff were from a range of professional backgrounds such as social care and equine services; however, they did not employ a registered social worker. Reflexive thematic analysis was used to interpret key themes and patterns across the data. The main theme interpreted from the research data for the purpose of this case study is the natural environment aiding learning. This is divided into two subthemes: the outdoor setting of the NBI aiding learning; and the horses aiding learning.

During the course, students attend and complete various modules, lessons and practices, both indoors and outdoors. Comparisons were often made by the students and teachers between the outdoor and the indoor learning environments. The 'students said they prefer being on the yard all day than days with indoor lessons' (fieldnotes, 12 May 2023). During observations, 'students appeared to respond much better learning outdoors

than this morning's indoor class. Students appeared more focused ... There were more physical outlets and students had the ability to move around to expend their energy. This physical release was encouraged by the teacher' (fieldnotes, 9 May 2023).

One afternoon class was held in the garden:

The students were asked by the teacher if they prefer learning indoors or outdoors. The students said it depends on the weather but usually outdoors, even in the rain if they can go under a shelter. There were lots of small breaks during this lesson for one student with ADHD [attention deficit hyperactivity disorder] so he could go for short walks and release his energy without disrupting the group. (Fieldnotes, 10 May 2023)

The horses as a nonhuman natural element also appeared to enhance the learning opportunities for the young people. A strong bond between students and the horses was observed as a benefit to learning, and staff encouraged these connections to be formed:

It was clear that each student had their favourite horse. Some students were keen to introduce me to their favourite horse and I encouraged them to tell me about the characteristics of the horse. David [pseudonym] seemed to speak about the horse like a best friend and he was often physically close and touching the horse throughout his interactions. (Fieldnotes, 11 May 2023)

The students also learned about animal welfare and wellbeing through their course. This was crucial to ensure that they graduated from the course and increased their capabilities to work with horses in the future. As one of the students remarked, 'we use Troy [a mechanical horse] to learn how to ride before we can ride a real horse so that we don't hurt the horse' (fieldnotes, 10 May 2023).

Hiking in nature as a means to support the wellbeing and reintegration of a young person facing precarious situations: a case study from Finland

Finland is a country located in Northern Europe with an abundance of natural environments for its sparse population. As such, many people in Finland frequently go into natural areas such as forests, parks, farmlands and water areas for outdoor recreation. Our second case study presents a youth organisation in northern Finland which offered NBIs as part of youth workshop activation for young people outside education and employment. The researcher participated in several outdoor activities with the organisation

and made notes through participant observations and interviews. Narrative interviews were also conducted with the coach who guided young people through the NBIs. This case study presents one narration from an interview undertaken with a coach who facilitated nature-based activities with youth. Data were originally collected in the Finnish language, transcribed and translated into the English language. This narrative interview was analysed interpretively (Murray, 2015):

In fact, this was a young person was in a difficult life situation, not having a place and didn't know where to go. We agreed to start individual nature coaching once a week, or every two weeks. Individual nature coaching is where we go out into nature for about three hours at a time, just the two of us. They had dropped out of school. They had challenges with their gender identity, not really knowing what or who they were yet. They were stuck in their flat, starting to get out of shape. Then they had some self-destructive tendencies and things like that. Then we agreed that okay, we'd go hiking. They didn't want to stop. We got into that kind of habit. I somehow managed to get the communication channels open in the first session. Every now and then, I would ask leading questions. They were able to really unpack a lot of things then. We were able to get them a mental health appointment and took care of a lot of other things at the same time. They got a bicycle and started taking long rides in the woods on that mountain bike between our meetings. Also, being in [name of city] was causing them anxiety and nothing was moving forward, and everything was difficult. Then, one day, I asked them: 'Why don't you move somewhere?' That it could totally help them in this situation, that they could get into completely new surroundings and they wouldn't have to explain to relatives, acquaintances or anybody if they were to start a gender transition process and so on. Then they still considered that they would ... The end result was that I helped them move to [another city], near the [name] National Park, so they'd get to ride their mountain bike at full speed over there. Then they moved there and went on to study.

NBIs in mental health services: a case study from Italy

Therapeutic interventions are reorienting themselves in Italy by incorporating green care and other forms of NBI, drawing on one of the country's deep cultural and natural heritages. Italy provides fertile grounds for such interventions thanks to its diverse landscape: the Alpine north and the Mediterranean south. The legal framework for green care in Italy is well established, providing a supportive environment for their development and implementation. Italian

legislation promotes social farming and green care practices as part of the national and regional health and social care systems. Law No. 141/2015 on social farming is a key piece of legislation that integrates agricultural activities with social services, rehabilitation and therapeutic interventions. This law supports the collaboration between farmers, healthcare providers and social workers, facilitating the use of NBIs in therapeutic contexts. Moreover, the regional autonomy in Italy allows regions to tailor green care programmes to their specific landscapes and community needs, enhancing the effectiveness and cultural relevance of these interventions (Dessein and Bock, 2010; di Iacovo and O' Connor, 2009). Green care services are used not only as treatment modalities, but as part of the complete service that promotes wellbeing, especially among people with disabilities.

This case study presents a social cooperative providing green care activities that integrate natural elements, sport and therapeutic sessions for people with intellectual and/or physical disabilities in Biella, northern Italy. The structured programme involved 12 participants and was facilitated by three social workers with sport instructor licences, with each session lasting approximately two hours, extending to three hours during the summer months. The programme included nature-based activities to stimulate cognitive functions, emotional states and connections among individuals. With professional support, the participants engaged in activities, such as nature walks, cycling and animal care. The activities were designed to suit each individual's abilities. Participants were supported and guided by the facilitators to enhance their self-reliance, social interaction skills and the comprehension of social norms within both natural and urban environments.

The main results interpreted from the research data in this case study are that NBIs foster stronger relationships and social cohesion among the participants' families and the broader community. One social worker noted that 'the impact extends beyond the participants; families are also forming stronger bonds and support networks'. Undertaking activities together in mixed groups of people with a broad range of abilities benefited the therapeutic process. This inclusive approach fostered a sense of belonging and mutual respect, resulting in increased social cohesion and a support network among participants. Furthermore, participants' families and carers shared that participants had gained both independence and social skills, leading to improved family relations. This was echoed by a social worker who said 'we've observed significant improvements in participants' self-reliance and social interactions'. This indicates that the benefits of NBIs are not confined to individual participants, but ripple out to enhance the broader social fabric. Overall, the case study illustrates how NBIs can strengthen family bonds and community connections, contributing to a more cohesive and supportive social environment.

Discussion

Benefits of NBIs displayed in the case studies

It has been argued that the wellbeing benefits derived from NBIs are due to the interaction of the key elements of the natural environment, the nature-based activities and the social aspect (Sempik and Brag, 2016). In case three, the increased social interactions and forming of support networks affected not only the wellbeing of the NBI participants, but also their families and community. In case two, the coach promoted the self-determination of the young person by considering their perspective on what goal was important for the intervention, finding a suitable activity for the nature trips, and encouraging and empowering them to make important decisions about their lives and eventually improving their physical and mental wellbeing. It can be argued that a catalyst for the wellbeing of the young person was changing from living a sedentary lifestyle that weighed down on their health and wellbeing to exercising independently in nature. Furthermore, relocating to a place closer to nature where the habit of going into nature could be sustained supports the goal of sustainable lifestyle and wellbeing.

Theories discussed previously such as attention restoration theory and stress reduction theory can explain the phenomenon presented in these cases of the wellbeing and mental health impacts of NBIs. As Kaplan (1995) shows, spending time in nature can prevent and mitigate stress, and restore attention and focus. Similarly, stress reduction theory argues that certain elements in the natural environment, such as trees, water or animals, can reduce stress (Ulrich et al, 1991). These theories emphasise the importance of the outdoor setting of NBIs (Kaplan and Kaplan, 1989). As observed in case one, students could focus better and appeared more alert and engaged during the outdoor lessons than their indoor alternative, inferring that the natural environment can be a particularly beneficial learning environment. This is discussed by Burgon (2013), who emphasises that learning possibilities can be enhanced in nature due to the specific therapeutic setting that it provides.

NBIs involve a central social component which was evident in all three cases. Through one-on-one or group activities, young people can work with peers, professionals and animals to enhance social interactions and build trust. Social learning theory explains that people learn new behaviours, attitudes and emotional reactions through observation and imitation (Bandura, 1977). This is enhanced if the role model is particularly influential, as was the case in these studies whereby the young people formed strong bonds with and attachments to others – for example, the relationship between the coach and young person in case two. During their time together, the young person was able to set a positive goal for their life and work towards achieving it, as the coach helped to connect them to important services such as mental health services. Additionally, this young person who was socially

withdrawn became reintegrated into mainstream society and returned to school following their relocation to a new place near nature and away from the difficulties surrounding their gender identity. Observing patterns of prosocial behaviours from others, such as caring for others, cooperation and coexistence, is also an important social element of NBIs. In case three, the young people engaged in activities within groups of mixed abilities over multiple sessions focused on enhancing social skills, independence and social support. This had a significant impact on the participants' families and wider communities. [Sempik and Bragg \(2016\)](#) note that NBIs can support the individuals' abilities to function in and interact with the social and natural environment not only of the intervention, but also that of their wider community, therefore improving the lives of the participants. [Obeng et al \(2023\)](#) support this, finding that NBI involvement can build community cohesion.

The human–animal bond shown in case one can also be explored through the biophilia hypothesis and attachment theory, as previously discussed. The biophilia hypothesis explains the benefits that humans experience from connections with animals, such as enhanced feelings of intimacy, social and psychological support, relaxation and destressing ([Beetz, 2017](#)). Attachment theory explains the attachment that humans can form to nonhuman animals, which can enhance social relatedness and belonging ([Fine and Beck, 2019](#)). In case one, a strong bond between the students and horses was displayed, and the horses became important role models and were particularly influential for the social inclusion and learning possibilities of the students. This was also shown by [Macháčková et al \(2021\)](#), who discovered that young people observed prosocial behaviours in forest animals. In a care farming intervention, [Kogstad et al \(2014\)](#) also found that meaningful personal relationships developed between humans and nonhuman animals, and the humans showed a care relation to animals and humans following the intervention.

Critical reflection

Thus far, the positive aspects of NBIs have been discussed at length; however, it would not be accurate to overlook the limitations and or possible harm caused by NBIs, especially considering recent studies have found that nature experiences can also be neutral or negative, and can even impair wellbeing outcomes ([Roberts et al, 2020](#); [Obeng et al, 2023](#)). In previous studies, some young people have expressed negative perceptions and reported negatively on their wellbeing following NBI involvement, or have quit the intervention before completion ([Gabrielsen et al, 2019](#)). Additionally, NBIs are often implemented as complementary methods alongside other interventions such as medication and counselling, so it is difficult to attribute

the benefits solely to NBIs. Impact assessments of NBIs also tend to be more qualitative and there is a reported lack of robust scientific methods, such as randomised control trials, to assess effectiveness. These limitations make it difficult to quantify the extent to which reported wellbeing outcomes can be associated with NBIs.

Another critique of NBIs is that they tend to focus on micro- and meso-level issues, without the ability to challenge structural and macro-level factors, which are the root causes of the challenges faced by the participants. NBIs can therefore appear to mainly address symptoms or blame victims. These criticisms, though important for broader discussions, fail to appreciate that although NBIs may not always directly address structural problems, they can provide alternative innovative solutions to be implemented more structurally. For example, [Elsen and Fazzi \(2021\)](#) found that social farming can play a vital role in enhancing deprived rural areas and combating poverty through job creation, and by combating criminal organisations' control over farming production processes and labour. Social farming can also provide societal benefits and create social and economic networks consisting of public bodies, communities and economic actors that are based on cooperation and mutual respect, and emphasise giving back to the community and nature ([Borgi et al, 2019](#)). These values can be transferred into mainstream settings in the form of hybrid governance models for social services ([García-Llorente et al, 2016](#)).

NBIs have also been criticised for being anthropocentric, as they are aimed at satisfying the needs of humans, with little attention being paid to the needs of the nonhuman providers of services. This challenges the assertion that NBIs are sustainable, as they can be seen to be 'using' nature as a means for human development. However, there is the possibility for more-than-human benefits through NBIs, as mentioned previously, such as improving animals' health and wellbeing, and providing the opportunity for enhanced nature connectedness, therefore increasing pro-environmental behaviours. Increasing contact with nature positively impacts a reported connection to nature, and psychological connectedness with nature can shape one's thoughts about nature positively ([Martin et al, 2020](#)). This enhanced connection can also increase one's care for the environment through pro-environmental attitudes, such as animal rights and climate change concern, and behaviours such as biodiversity conservation and conserving energy ([DeVille et al, 2021](#)). Additionally, while NBIs may seem to be exploiting the benefits of nature for human development, some NBIs have a specific focus to preserve and conserve nature, promote local biodiversity and mitigate climate change ([Nabhan et al, 2020](#)), while others involve a reciprocal caring relationship with nature, such as caring for the animals and ecosystems involved in the interventions ([Ng and Pfeiffer, 2023](#); [Conway and Barrett, forthcoming](#)). This was observed in case one, where the students learn about animal welfare

and wellbeing throughout their course and this further connects the students with the animals.

NBIs and social work

Historically, social work has centered on the person-in-environment perspective, focusing on the social, political, and economic context. However, the ecosocial approach seeks to broaden the moral and ethical scope of social work by including the natural environment and ecosystems in its holistic understanding of the lives it aims to support (Matthies and Närhi, 2016). It urges for a holistic and transformational shift in our understanding of the place of humans in a much larger system (Boetto, 2017). While some scholars have stated that NBIs are connected to the person-in-environment perspective in social work (Berman and Davis-Berman, 1989; Tucker, 2009), others have suggested that NBIs could be implemented as intervention strategies within an ecosocial work framework (Norton, 2012). Ecosocial work practice involves interventions aimed at ‘promoting factors that contribute to a sustainable world; ameliorating impacts of global warming on disadvantaged groups; and incorporating the natural environment into day-to-day practice to improve health and well-being’ (Boetto, 2016, pp 60–61). With this definition, we frame NBIs as one example of ecosocial work practice as they incorporate nature into social work practice, with the specific aim of improving human health and wellbeing. As Besthorn and Saleebey (2003) state, it is critical for social workers to incorporate natural elements into interventions and to show service users the restorative benefits of nature through NBIs.

The authors of this chapter share a broad perspective of what social work is and what defines a social worker. Social work entails not only clinical work, child protection services or social welfare provision, but also community work, group work, social action, structural social work, community organising, political education and work in and with the natural environment, among many others. Although the job titles of the professionals in our case studies were not always ‘social worker’, this does not mean they were not performing social work. As can be seen from our discussion and case studies, there are many possible social benefits to NBI participants. NBIs can be considered meaningful and beneficial interventions, which are therefore relevant for social work. NBIs can also be seen as tools to be utilised or referred to by social workers in order to support people facing precarity.

Conclusion

Through a conceptualisation of NBIs, this chapter has explored what potential NBIs have to address challenges faced by people experiencing

precarity. Through qualitative research, including interviews and participant observations, three NBIs from Ireland, Finland and Italy were presented. From the case studies presented earlier, it can be seen that: (1) the natural environment can aid learning; (2) nature trips can serve as a catalyst for change; and (3) nature activities can enhance social cohesion and relationships within families and communities. These cases exemplify how NBIs can improve the health, wellbeing and social inclusion of people in precarious situations. NBIs as a method of ecosocial work extends the possibilities of traditional social work due to the unique natural setting of the NBIs. If viewed as an additional, beneficial method to support people in precarious situations, NBIs have the potential to provide social and wellbeing benefits for participants, which could have implications for social work education, research and practice. Implications for social work include: (i) integrating more-than-human aspects into practice; (ii) extending practice contexts into natural environments where service users can benefit from the therapeutic natural setting; (iii) engaging service users in activity-driven tasks to address their holistic wellbeing; (iv) involving and collaborating with families, institutions and wider communities in these interventions to promote social cohesion and comprehensive care; and (v) engaging in sustainable practices that can enhance the natural environment through enhanced connectedness to nature.

It is important to note that the authors recommend the sustainable, fair and ethical inclusion of nature into social work and multidisciplinary practice through NBIs that are individually tailored and appropriate for the service users.

Based on these cases, the preceding literature on the topic referenced throughout the chapter, and considering the limitations of both our data and NBIs, we conclude that NBIs hold promise as alternative, innovative ecosocial interventions that can respond to the needs of people in precarious situations with the added potential to benefit the natural environment.

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