

Critically evaluate the impact of outdoor recreation upon the health & well-being of a specific demographic group in your local area and make recommendations for the removal of barriers to participation

Introduction

The positive impacts of the natural environment on health and wellbeing are well documented with access to nature resulting in both physical and psychological health gains for populations (Dobson *et al.*, 2021; Shanahan *et al.*, 2019). This essay will critique the impact policies and initiatives within the area of Swansea have had on vulnerable groups that experience a higher risk of poverty and social exclusion than the general population and make recommendations on improvements to practice (Shanahan *et al.*, 2019; Steinmetz *et al.*, 2021).

To evaluate the policy initiatives and provisions this essay will firstly look at statistics for the Swansea area in particular relating to its vulnerable groups. These statistics will highlight the need for wellbeing initiatives in Swansea and the relevant responses in policy made by Swansea Council in line with The Wellbeing of Future Generations (Wales) Act 2015 and the setting up of the Swansea Public Service Board (Swansea Public Service Board, 2021; Welsh Government 2015). The initiatives of the Swansea Public Service Board, primarily working through its Working with Nature Task Group, will be presented with its approaches to vulnerable groups linked to theories by Louv (2005) and studies by Hackett *et al.*, (2021). The lack of specifically designed interventions for deprived areas by Swansea Council and the reliance on generalised wellbeing benefits of green spaces will be raised.

Secondly, this essay will look at two examples of organisations outside of Swansea Council that are having a positive impact, Biophilic Wales and Down to Earth (Down to Earth, 2022; National Botanic Garden of Wales, 2022). Biophilic Wales will demonstrate the importance of creating quality greenspaces involving local communities with the design of green infrastructure and the implementation of nature prescriptions to reduce demands on healthcare providers (Bragg & Atkins, 2016; Dobson *et al.*, 2021 National Botanic Garden of Wales). An argument will be made around accessibility issues and limitations with creating high-quality green spaces without active interventions to connect vulnerable groups to them (Dobson *et al.*, 2021). Down to Earth will offer an example of social prescribing using sustainable construction to engage marginalised individuals in line with Stress Recovery Theory and Attention Restorative Theory (Davies *et al.*, 2020; Kaplan & Kaplan, 1989; Kaplan 1995; Ulrich 1983; Ulrich *et al.*, 1991).

Thirdly, considerations will be made for adapting planning and practice for nature initiatives with vulnerable groups. The dangers of universally prescribing doses of nature thereby devaluing multiple ways of gaining wellbeing from nature and consequently limiting

inclusivity will be explored (Bragg & Leck, 2017; Bell *et al.*, 2019). Consideration of quality green spaces and specific/individually designed interventions will be made as recommendations for the inclusion of representatives of vulnerable groups in planning stages (Dempsey & Burton, 2012; Dobson, 2018; Hughey *et al.*, 2016; Pope *et al.*, 2018; Shen *et al.*, 2017).

Lastly, implications for my own and other outdoor learning professionals practice will be considered, the need to be prepared to accept limitations of my own experience and seek further training and collaboration with specialists when designing initiatives for vulnerable groups is acknowledged and recommendations for the future made.

Essay Position

The position taken in this essay is that vulnerable groups require quality green spaces with specifically designed interventions to gain full accessibility to the health and wellbeing benefits of the outdoors/nature.

Swansea Policy Initiatives and Provisions

Shanahan *et al.*, (2019) highlights how nature-based interventions have the potential to improve health and wellbeing across a range of domains citing the example of nature prescriptions that can both promote physical activity leading to positive health outcomes and provide patients with the mentally restorative effects of natural spaces. This demonstrates how investment in nature-based interventions when scaled up, could have significant and cost-effective implications for public health. However, there are potential barriers to accessing some interventions for specific demographic groups namely those described as vulnerable groups that experience a higher risk of poverty and social exclusion than the general population (Shanahan *et al.*, 2019; Steinmetz *et al.*, 2021). These groups include ethnic minorities, migrants, disabled people, sexual minorities, and younger people (Steinmetz *et al.*, 2021).

Swansea is the second largest city in Wales (U.K) with a land area of 379.7km² that is approximately 69.5% rural and 30.5% urban. As of mid-2020 it has an estimated population of 246,000 with density of 653 people per km² (Swansea Council, 2022). Within this population The Welsh Index of Multiple Deprivation identified 11.5% of Swansea's local areas as falling within the top 10% of the most deprived in Wales (Jones, 2019). The Office of National Statistics Annual Population Survey 2018-19 found 26.2% of the working age population (16-64) were Equalities Act Core or work-limiting disabled (Swansea Council, 2020). In 2019-20 an estimated 14.1% of people aged 16+ living in households in Swansea live in material deprivation (Swansea Public Service Board, 2021).

The Office of National Statistics published "Personal Wellbeing in the UK, 2019-20" containing estimates of life satisfaction relating to happiness and anxiety with Swansea mean scores scoring worse than Wales and UK averages for 2019-20 (Office of National Statistics,

2020; Swansea Public Service Board, 2021). Though contrastingly, Data Cymru's Thriving Places Wales, which uses a wider range of indicators for wellbeing, found Swansea had better conditions for wellbeing than the Wales average in "Sustainability" and "Equality" domains but worse than the Wales average in "Local Conditions" domain (Data Cymru, 2021).

These statistics highlight the need for wellbeing initiatives within Swansea and the requirement for specific interventions relating to vulnerable groups. The Wellbeing of Future Generations (Wales) Act 2015 gave a legally binding common purpose for national government, local government, local health boards and other specified public bodies detailing ways in which they must work together to improve the well-being of Wales in line with 7 wellbeing goals (Figure 1).



Figure 1. Wellbeing goals (Welsh Government, 2015).

This act created Public Service Boards with the objective of creating local organisations that could work together to improve the economic, social, environmental, and cultural wellbeing of their area by controlling the achievements of the Wales's wellbeing goals (Swansea Public Service Board, 2021; Welsh Government, 2015). Swansea Public Service Board has developed a local-wellbeing plan to meet the wellbeing goals that has five objectives.

- 1) **Early Years** – To ensure that children have the best start in life to be the best that they can be.
- 2) **Live Well, Age Well** – To make Swansea a great place to live well and age well.
- 3) **Working with Nature** – To improve health, enhance biodiversity and reduce our carbon footprint.

- 4) **Strong Communities** – To build strong communities with a sense of pride and belonging.
- 5) **Sharing for Swansea** – To work towards integrated public services in Swansea by sharing resources, assets and expertise.

Within these plans outdoor/nature opportunities have been provided through funding and distributions of play bags to vulnerable families, socially distanced outdoor family play sessions and the safe opening during the pandemic of play spaces and parks (Swansea Public Service Board, 2021). Outdoor Activities Sport and Health Local have delivered free, or low cost outdoor and walking activities to early year and older adults with online courses for Health and Walk Leader training occurring with 131 graduates in 2020-21 (Swansea Public Service Board, 2021).

Hackett *et al.*, (2021) study on programmes to encourage outdoor/nature engagement among urban youth and families demonstrates the effectiveness of encouraging norms for both adults and children exploring nature together, and may lead to changes in behaviour and opportunities for improving wellbeing, particularly within vulnerable groups most impacted by socioeconomic and environmental barriers. This is supported by Louv (2005) who highlights creativity and play in the outdoors contributes directly to mental health. However, the report by the Swansea Public Service Board (2021) concedes that a limitation of this is that it has not been joined up with existing work already taking place by organisations in the area and they have not had all relevant parties involved with decision making.

The Working with Nature Task Group seeks to improve health, enhance biodiversity, and reduce carbon footprint in the Swansea area. It was set up by the Swansea Public Service Board to develop and deliver action plans for the Working with Nature objective (Public Service Board, 2019). The task group has highlighted a plan to focus on green infrastructure, green spaces, nature recovery, carbon reduction, climate adaptation, transport, and community engagement (Swansea Public Service Board, 2021). £20,000 of funding was secured through Natural Resource Wales to build a green roof centre in the Drop-in Centre in Blaenymaes and to run a community engagement programme to connect people to green spaces in their community. In addition, 650m² of wildflower turf was laid in Penderi, a cycle path constructed through the “ravine” in Townhill and 3,175 trees planted through additional funding by Welsh Government and Trees for Cities (Swansea Public Service Board, 2021).

These implementations are a positive improvement to Swansea’s green spaces, which are well documented for their socioeconomic and environmental benefits as well as providing physical, psychological, and emotional wellbeing (Jabbar *et al.*, 2021; Mensah *et al.*, 2016). Research has shown that low-income areas have reduced greenspace availability (Thomas Astell-Burt *et al.*, 2014) and are less likely to utilise those greenspaces that exist (Shen *et al.*, 2017). The lack of specifically designed interventions for deprived areas by Swansea Council is of concern although there are organisations outside of Swansea Council within the local area that are having a positive impact.

Further Interventions

An encouraging initiative, is Biophilic Wales, named after Wilson's (1993) biophilia hypothesis that proposes humans have an innate tendency to seek connections with nature and other forms of life. Biophilic Wales involves a partnership between the National Botanic Garden of Wales, Swansea Bay University Health board, Swansea University and Natural Resources Wales (National Botanic Garden of Wales, 2022). It comprises three areas: Grasslands for Life, Plants for People, and Inspiring Spaces. Grasslands for Life focuses on developing resilient grassland ecosystems through innovative techniques of monitoring and restoration activities. Plants for People works at creating a seedbank with the National Seed Bank of Wales of Wales's most threatened plants. With active community and volunteer engagement it will help to grow these plants to create a distributed network for plant conservation. Lastly Inspiring Spaces will utilise the first two projects to develop green infrastructure projects using 40 sites within the Swansea Bay University Health board estate as focal points. These sites will be specifically surrounding hospitals, health centres, mental health and residential facilities with the aim of creating inspirational green spaces for people to connect with nature and allow nature prescribing (National Botanic Garden of Wales, 2022). The implementation of these plans has so far seen over 1000 native wildflowers planted as well as 288 trees with bird boxes and bug boxes installed. There is also a research element measuring the effects of growing wildflowers on wellbeing called "Growing Together" which has 6000 participants but is yet to publish its findings (National Botanic Garden of Wales, 2021; National Botanic Garden of Wales, 2022).

Within the U.K, mental health is the largest cause of disability with an economic cost estimated at £105.2 billion each year (Department of Health, 2016). An international review of 263 studies noted that 70% of papers reviewed reported a positive association between greenspace and wellbeing (Wendelboe-Nelson *et al.*, 2019). These demonstrated the power of nature prescriptions/interventions to tackle mental health and reduce demands on healthcare providers (Bragg & Atkins, 2016; Dobson *et al.*, 2021). Though it is of note that the quality of green spaces can have a stronger bearing on health outcomes than quantity (de Vries *et al.*, 2013). Consequently, Biophilic Wales's approach of specifically designing green infrastructure with the help of local community and using native plants may lead to more effective results.

Nevertheless, literature on the positives of nature connectedness often shows broad benefits, which may not align with the specific needs of vulnerable groups (Dobson *et al.*, 2021). Moore *et al.*, (2018) emphasises issues with isolating specific variables for specific positive outcomes from nature connection, therefore it is not enough to simply create high quality green spaces for vulnerable groups who may struggle to access them, direct work with the specific groups may be required.

Within the Swansea area, Down to Earth, is a not-for-profit social enterprise that merges innovation in healthcare with education delivery by connecting those on the margins of

society through social prescribing with the outdoors and natural materials. It provides an example for specific interventions for vulnerable groups (Davies *et al.*, 2020; Down to Earth, 2022). Down to Earth employs a method referred to as sustainable construction by having groups create permanent sustainable art, training, learning and residential spaces for future participants. Individuals attend a group based sustainable building project for one full day per week over an 8-week period in groups sizes of 6-12 members (Davies *et al.*, 2020; Down to Earth, 2022). A study on this approach by Davies *et al.*, (2020) based on clinical research undertaken at Down to Earth found that it brought important changes to levels of anxiety, depression, and resilience, in addition to improvements in social connection for participants.

Davies *et al.*, (2020) cites two complimentary theories to explain the mental health value of Down to Earth's initiatives for vulnerable groups: the Stress Recovery Theory (Ulrich, 1983; Ulrich *et al.*, 1991) and the Attention Restoration Theory (Kaplan & Kaplan, 1989; Kaplan, 1995). Stress Recovery Theory puts forward that contact with a natural setting will reduce the time it takes to recover from stressful events. It suggests humans are predisposed to resonate with natural surroundings and that the brain produces a fast emotional reaction at a subconscious level that is measurable, with individuals experiencing a decrease in stress that is reflective in a reduction of negatively toned feelings and physiological conditions such as heart rate and blood pressure (Loureiro *et al.*, 2021; Ulrich, 1983; Ulrich *et al.*, 1991). Attention Restoration Theory advocates that the capacity for mental attention can be depleted by activities demanding prolonged focus leading to fatigue, frustration, and inability to concentrate. Restorative environments provide the opportunity for recovery from mental fatigue by encompassing four components namely of being away, extent, compatibility, and fascination, with fascination being fundamental to restoration (Loureiro *et al.*, 2021; Kaplan & Kaplan 1989; Kaplan, 1995). Down to Earth's sustainable construction therefore connects groups with natural surroundings while providing the appropriate engagement to maintain fascination leading to benefits for participants (Davies *et al.*, 2020).

Whilst both these theories give indication of the benefits of engaging vulnerable groups with the outdoors it is not made clear within them whether active or passive engagement with nature will produce the best results (Davies *et al.*, 2020). In addition, the research at Down to Earth was conducted at a single setting in the U.K with specific cultural and societal factors, although it does show sustainable construction as a promising intervention for providing wellbeing support for vulnerable groups.

Considerations for Vulnerable Groups.

There is growing enthusiasm for prescribing nature-based activities as a non-medical referral option for general practitioners (Bragg & Leck, 2017; Bell *et al.*, 2019). Bell *et al.*, (2019) cautions that universally prescribing doses or green initiatives across the population risks devaluing the multiple ways to gain wellbeing from nature and limit inclusivity. It may be more effective to ensure professionals have the appropriate training to refer individuals to opportunities that can give positive connections in the context of each individual's embodied knowledge, competences, and socio-cultural values. This is further backed by Wessel (2017) who notes that it is important to refine individual plans over time and tailor them to specific needs and interest. To increase accessibility to green spaces Southwell *et al.*, (2013) recommends green space sites should reach out to vulnerable groups that embody different needs, priorities, and interests than their regular visitor to enable appropriate infrastructure to support the practicality and enjoyment of the site (Bell, 2018). Bell *et al.*, (2019) recommends further that relevant site staff should receive training or complete short-term placements with local social or disability specific charities to increase awareness of supporting people in challenging circumstances. This recommendation for practitioners and stakeholders is backed by Dobson (2018) who advises that accessibility to green spaces for vulnerable groups can be increased by several key components, namely improving access to reach green spaces including walking and cycling connections between neighbourhoods and green spaces, upgrading toilet and café facilities to enable vulnerable groups to spend longer amounts of time in green spaces, ensuring there is regular sustained maintenance so green spaces do not become undesirable, the training of workers and staff to facilitate a range of accessible activities and to support organisations that animate green spaces and provide wellbeing activities.

The message of quality specifically designed green spaces over quantity in support of vulnerable groups is clear within literature (Dempsey & Burton, 2012; Dobson, 2018; Hughey *et al.*, 2016; Pope *et al.*, 2018; Shen *et al.*, 2017). Higher socio-economic status groups have been consistently found to have better access to public green spaces partly due to their ability to choose residences with quality green spaces nearby and their capacity to be involved in relevant planning decisions to their benefit (Shen *et al.*, 2017; Shrestha *et al.*, 2016). If policy makers, designers and practitioners are to increase accessibility for vulnerable groups their representatives must be involved in the planning and implementations of initiatives.

Own Practice

As an outdoor learning practitioner who both works directly with groups and designs programmes and initiatives within the not-for-profit sector on education, sustainability, and outdoor learning, there are several implications for practice in addition to the considerations already made for connecting vulnerable groups to nature. Pryor (2005) highlights how outdoor learning practitioners must be aware of the limitations of their own training and ideally should work with, receive extra training or be prepared to refer participants on to

other supports and services. Loyne's (2018) cautions about placing outdoor learning behind boundaries of your own experience allowing participants to frame their own experience with nature. This mirrors the Bell *et al.*, (2019) approach of tailoring nature prescription to the individual or specific group. Chen & Cheng (2020) goes further when considering the division of responsibilities when working with vulnerable group suggesting it is more effective to empower social workers with the appropriate training and support to deliver outdoor programmes directly, thereby moving the outdoor practitioner to a consultant/overseeing role. The clear take away for practice is quality over quantity when engaging with vulnerable groups and that specifically designed interventions will be more effective than all-encompassing approaches with practitioners needing to be prepared to accept the limitation of their own training and either seek further training or collaborate with specialists (Pryor, 2005).

An example of further training an outdoor practitioner may seek is the social enterprise "Therapeutic Forests" that provides Level 3 Forest School Leaders or similarly trained outdoor leaders with therapeutic skills and disability awareness training aimed at informing practice with both young people and adults with disabilities (The Therapeutic Forest, 2022).

Future Implications

Swansea Council through its public service board has put several policies and initiatives into practice with success gained in some areas for nature-based wellbeing. By its own admission it has not however, successfully communicated with the various organisations within the area that have designed successful specific interventions for vulnerable groups (Swansea Public Service Board, 2021). In the future as Shanahan *et al.*, (2019) suggests, investment in already existing interventions and organisation for vulnerable groups could result in significant and cost-effective implications for public health particularly for those belonging to a vulnerable group.

Summary and Conclusion

Nature-based interventions have the potential to improve health and wellbeing by promoting physical and psychological benefits for those that engage with them (Shanahan *et al.*, 2019). When scaled up these could have significant and cost-effective implications for public health. There are potential barriers of access for vulnerable groups that experience a higher risk of poverty and social exclusion than the general population in accessing these interventions (Shanahan *et al.*, 2019; Steinmetz *et al.*, 2021).

In Swansea 11.5% of local areas fall within the most deprived in Wales with 26.2% of the working population (16-64) being Equalities Act Core or work-limiting disabled and 14.1% of people aged 16+ live in material deprivation (Jones, 2019; Swansea Council, 2022; Swansea Public Service Board, 2021). These statistics highlight the need for wellbeing initiatives within Swansea and the requirement for specific interventions relating to vulnerable groups. The

Wellbeing of Future Generation (Wales) Act 2015 led to the setting up of Swansea Public Service Board which has initiated a number of outdoor/nature opportunities in the local area (Swansea Public Service Board, 2021; Welsh Government, 2015).

These initiatives have focussed on supporting vulnerable families with play equipment and sessions, free or low-cost outdoor walking activities and the setting up of the Working with Nature Task Group (Swansea Public Service Board, 2021). The Nature Task Group has initiated plans that focus on green infrastructure, green spaces, nature recovery, carbon reduction, climate adaption, transport, and community engagement (Public Service Board, 2019; Swansea Public Service Board, 2021). These implementations are a positive improvement to Swansea's green spaces and are backed by a wide range of literature (Hackett *et al.*, 2021; Jabbar *et al.*, 2021; Louv, 2005; Mensah *et al.*, 2016). However, as research has shown, vulnerable groups are less likely to utilise greenspaces and consequently the lack of specifically designed interventions for deprived areas is a concern, as is Swansea Council's limited communication and work with existing organisations working within those communities (Shen *et al.*, 2017).

Two examples of positive initiatives within the local area are Biophilic Wales and Down to Earth (Down to Earth, 2022; National Botanic Garden of Wales, 2022). Biophilic Wales highlights the importance of creating quality green spaces involving local communities with the design of green infrastructure and the utilisation of nature prescriptions to reduce demands on healthcare providers (Bragg & Atkins, 2016; Dobson *et al.*, 2021 National Botanic Garden of Wales). Dobson *et al.*, (2021) however emphasises accessibility issues with simply creating high quality green spaces for vulnerable groups and direct work with specific groups may be required. Down to Earth offers a social prescribing approach that uses sustainable construction to engage marginalised individuals with nature, citing Stress Recovery Theory and Attention Restorative Theory to explain the mental health value for vulnerable groups (Davies *et al.*, 2020; Kaplan & Kaplan, 1989; Kaplan 1995; Ulrich 1983; Ulrich *et al.*, 1991).

The implications of this for practice is that in order to increase accessibility for vulnerable groups to connect with nature, high quality green spaces are needed with improved access and trained staff to facilitate a range of accessible activities to engage vulnerable groups with nature. This can be achieved through upscaling the work of existing organisations within the community and involving representatives of vulnerable groups in planning and implementations of initiatives (Dobson *et al.*, 2021). As well as further training outdoor practitioners and/or social workers or encouraging greater collaboration between social workers and outdoor practitioners (Chen & Cheng, 2020; Pryor, 2005).

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