

An exploration of the role that green exercise could play in improving the health and well-being of inner-city youth.

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Independent Project:

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Abstract

This study **Excellent!** o the potential of green exercise as a means of enhancing the health and well-being of inner-city youth. Young people living in urban environments often lack access to natural spaces, and the potential benefits of outdoor physical activities within green environments (Bray, et al, 2022). This study aims to explore the perspectives of health, psychology, and urban planning that impact inner-city youth being able to benefit green exercise. This study uses **already** existing data **that has been collected** to allow for exploration into how green exercise can positively impact mental health, physical fitness, and social cohesion among inner-city youth. it examines how green exercise reduces stress, promotes positive lifestyle choices, and fosters a deeper connection with nature among youth aimed around the age of 5 to 25 years of age. The literature review tended to agree that there was a significant positive outcome from the use of green exercise and what it can do for inner-city youth. Many papers (e.g., Bray, et al, 2022, Pykett, et al, 2020, Birch, et al, 2020) found evidence that health and wellbeing had increased after short and long periods of exposure to green exercise and green spaces. Additionally, by exploring the benefits of green exercise this study aims to provide valuable insight to practitioners, policy makers, and researchers seeking to enhance urban health outcomes and resilient communities. This research has found numerous benefits and resources that can be used for aiding the inner city youth as well as possible ways of implementing them into future generations so that when youth try to educate the next generation, they will have the necessary skills and experiences to help the next generation of inner-city youth.

Keywords: green exercise, green space, wellbeing, mental health, physical activity, nature, inner-city youth.

Introduction

Youth is the future of our civilisation without them our society will crumble therefore looking out for their health and well-being is an extremely important role that should not be overlooked lightly. In the busy landscapes of urban environments health and wellbeing of inner-city youth has been more of a concern. Pykett, Osborne, and Resch, (2020) found that urbanisation has negative effects on the body's health and well-being with stress, anxiety, and mental disorders being frequent. The amalgamation of socioeconomic disparities has a significant effect on the youth as income and wealth can be what separates youth from being able to acquire a healthier lifestyle due to limited chances and possibilities given to them (Katz, Rodriguez, and Knowles, 2021). Inner Cities have limitations with the use of green spaces with inner city youth as well as sedentary lifestyles all of these have given rise

to challenges within the youth. Bolland, et al, (2001) supports this with their study showing that large amounts of youth in inner cities view their situation in a negative light leading to hopelessness and erratic behavior. Among these challenges, there is a method of research that suggests that green exercise – a term that is used when exercise is used in a natural environment – helps to bring more beneficial ways towards addressing health and wellbeing within inner city youth (Birch, Rishbeth, and Payne, 2020).

Good point

This independent project aims to explore the role that green exercise has in enhancing the health and well-being of the inner-city youth between the ages of 5 to 25. This age range encompasses a critical period of physical, cognitive, and social development, during which lifestyle habits and behaviours are established and can have long lasting effects on health outcomes. Notably Strong, et al, (2005) advocates for daily exercise tailored to development stages, emphasising enjoyment and diversity of activities, while Calcaterra, et al, (2022) also found reason for this age group as a large amount of youth is suffering from obesity and physical activity will help with helping youth realise that physical activity must be a part of everyday life. Among the various forms of physical activity, green exercise has garnered attention for its potential to offer unique health benefits and those of traditional indoor exercise settings.

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Before delving into the specifics of this exploration, it is crucial to clarify the term “inner city” and its relation to “urban areas” and “cities” to provide contextual understanding. An inner city typically refers to central part of a city characterised by higher population density, often comprising residential, commercial, and industrial zones. It is marked by a concentration of built up structures, limited green space, and sometimes socio-economic challenges such as poverty and inadequate access to resources. Urban areas on the other hand encompass a broader of spectrum of densely populated regions, including inner cities, suburbs, and large conurbations, all of which share characteristics such as high infrastructural development, significant human activity, and varying of green space availability. For the purpose of this study, the term inner city refers to the central spaces of large urban areas. These areas have many characteristics that are commonly described as being “inner-city”. The key characteristic of this study is the limited access to green space and the socio economic challenges of living in a densely populated urban areas.

Very Good!

Excellent!

In this independent project I will be exploring the role that green exercise could play with enhancing the health and wellbeing of inner-city youth. Delving into the interplay of between urban environment, physical activity, and mental health, I will focus these study objectives on exploring untapped opportunities for involvement. Urbanisation continues to re-shape the landscape of our city's, understanding the benefits of incorporating green space into the lives of inner-city youth becomes increasingly important (Ugolini, et al, 2015). Ugolini, et al, (2020) information and study's

Very Good!

on how people acted within COVID 19 and the use of green spaces was at an all high due to people in urban areas needed new ways to exercise. This meant that more people during covid need areas for exercise as staying in the same area with isolation isn't healthy especially for developing youth who need to get out and let their bodies flourish and develop at a normal rate. good but needs ref This study will be looking at how green exercise can change how we think at a younger age and what it can do for us for their future development into adulthood.

Access to green spaces for outdoor activities has been demonstrated to be crucial in fostering and preserving mental wellbeing especially for younger generations. where it is important to give them opportunity to experience green areas for their benefit (Markevych, et al, 2017). It also good to mention that activity in green spaces has been defined as green exercise according to (Barton, et al, 2016) Vaznonienė, and Vazonis, (2020) found evidence that green space promotes youth wellbeing as well as personal development and other benefits. In today's younger generations need to be healthier for the sake of the future as they have the most impact on how we view our society in future generations (Liebenberg, 2020). Inner city youth are the most nature deprived children as they have the least amount of green space available (Kronenberg, et al, 2020). By utilising green exercise for inner-city youth, we can allow for nature connectedness (NC) to grow which in turn will help with their health and further their wellbeing. Rogerson, et al, (2020) confirms this in his paper which explains the benefits of using green exercise daily and came back with positive information on health and wellbeing increasing by the end of the study. Lahart, et al, (2019) discuss how physical activity has many benefits that can help youth and how it can prevent chronic conditions, including cardiovascular disease, type 2 diabetes, and certain cancers, and improve musculoskeletal health, weight management, motor skill development in children, and mental health problems. This use of green exercise allows for growth and development that can further help inner city youth to develop themselves for the future (Islam, Johnston, and Sly, 2020). By looking into what causes this growth and development we can look into way into utilise this so that we can gain more of an understanding of why it works and why we should use it for future studies and programs.

Throughout the following chapters this independent project will be exploring the literature, empirical evidence, and theoretical frameworks to understand how green exercise can positively impact the health and wellbeing of inner-city youth. Evaluating the physical health benefits of engaging in green exercise such as improvement within cardiovascular fitness, flexibility and strength will allow us to explore how we can understand the connection towards their health and wellbeing. Finally, we will also be looking at a long term impact with sustained engagement within green exercise and overall health and wellbeing. This study will make sure that these aims will give an understanding into how green exercise is beneficial for city youth and how putting it to practice is incredibly important for us to explore.

Overall, this independent project aims to unravel the potential of green exercise by understanding how it can benefit the lives of inner-city youth. This further aligning with the Welsh Government future generation act (2015). However, this study will also investigate how green exercise can utilise cultivation of environments that nurture both physical activity and mental wellbeing. Through a multidisciplinary lens we can view public health, environmental psychology, and urban planning to allow this study to have a greater understanding of how nature and exercise can help to foster a positive change towards inner city youth. This study will also try to explore avenues that can help with future development and keeping their health and wellbeing up to a good standard even at adulthood and for future generations.

Methodology

The focus of my independent project research is on exploring the impact of green exercise on the health and wellbeing of inner-city youth. I am to investigate the various ways in which engaging in activities within green spaces, such as forest schools and outdoor fitness classes, can benefit the physical and mental wellbeing of young people living in urban areas for the ages of 5 to 20. To conduct this study, I employed multiple search strategies during the literature review phase. These included examining the urbanisation of green spaces, exploring the benefits of green exercise, and investigating the links between mental wellbeing and green exercise. For instance, a study made by Dzhambov, et al, (2018) highlighted the positive effects of green exercise have on the mental health of inner-city youth, indicating an enhancement in restorative qualities and physical activity levels. Such finding support the keywords used in databases such as google scholar. Facilitating the development of a comprehensive literature review and guiding further research in this area.

There are quite a few themes within my research that I have found that a lot of the evidence goes over itself and is very similar for example there are many similarities with the psychological effects of nature exposure and physical health benefits of outdoor activity. According to Shuda, Coventry, et al, (2021), and Bougoulas, and Kass, (2020), they found that in both of these studies indicated that there was a significant increase in overall health from both studies and that both studies gathered better mental health as well. This suggests that there will be other studies that have similarities between them and that I can further my research by looking into these similarities by linking them together and interpretation of the data. Another point to look into would be that there studies can be incredibly similar as well and that this definitely help me to utilise multiple studies into my research and writing. Proving this, I looked into Rojas-Rueda, et al, (2019) and Twohig-Bennett and Jones, (2018), studies and both of them did systematic review on how green spaces and how it can be used for the benefit of health and wellbeing. These systematic reviews give me the opportunity to link my work together with how research is being taken place within studies. By showing how it can be used for the benefit

of inner city youth by following clear evidence that multiple studies have produced identical information and that it can be used in supporting my exploration of the role that green exercise plays in improving inner city youth.

This study aims to keep making sure that all information I collect is ethically sourced and has been collected with no ill intent to the environment, people's mental health and well-being. By doing this I make sure that all information won't hurt anyone and will be used in a justified manner. Additionally, I will not be biased with how information is collected. By prioritising ethically sourcing, I aim to safeguard against any harm that could arise from dissemination of information. Furthermore, I recognise the importance of upholding principles of fairness and equality in the collection process. Ultimately my goal is to ensure that the information I gather is not only accurate and reliable but also contributes positively to the advancements of knowledge and understanding of the role of green exercise with improving the health and wellbeing of inner city youth. By adhering to these ethical standards, I believe we can foster a more inclusive and responsible approach to information gathering and dissemination.

Very Good!

This paper will be looking into the possibilities of using green space in urban environments and how green exercise is used to enhance the health and wellbeing of inner-city youth. this means exploring multiple different avenues of benefits that can help to foster this improvement. Specifically, it explores multifaced advantages of green exercise, spanning from its impact on mental health, emotional wellbeing, physical fitness, social skills, cognitive function, and positive neurological changes induced by exposure to engagement in such activities. I made sure to look into different aspects of green exercise going from mental health to positive neurological changes caused by the exposure and use of green exercise.

Literature review

In this literature review I will be exploring how role of green exercise can play in improving the health and wellbeing of inner-city youth. This means that the range of the youth I will be looking into will be around the ages of 5 to 25 ranging from children, adolescents, and young adults by synthesising empirical evidence from diverse disciplines, including public health, phycological and urban planning. Central to this exploration of green exercise which encompasses physical activity undertaken in natural environments such as forests, parks, and green urban spaces (Shanahan, et al, 2016). The term "inner city" means a densely populated urban area of that has a number of socio-economic challenges as well as limited accesses to green areas. This can present barriers to children adolescents and young adults when it comes to physical activity and outdoor recreation, which can significantly impact their health trajectories. Green exercise offers a holistic approach to promoting health and wellbeing addressing not only physical fitness but also psychological wellbeing, stress

reduction and environmental stewardship (Loureiro, et al, 2021 and pretty, et al, 2003). Engaging in outdoor activities surrounded by nature children, adolescents and young adults can reap a wide range of benefits that can contribute to the overall health and quality of life (Beyer, et al, 2014). Moreover, this review will aim to explore the conceptual frameworks and theoretical perspectives that underpin research on green exercise and its potential effect on youth health outcomes.

Green exercise benefits

One promising avenue that has gained the attention is the concept of green exercise a term that encapsulates physical activities undertaken in natural environments. This literature review seeks to explore the evolving discourse surrounding the role of green exercise in enhancing the health and wellbeing of inner-city youth. Loureiro, and Veloso (2017) write about how physical activity has massive positive impacts on psychological and physical health, and exposure to nature is beneficial for health and wellbeing. They suggest that there are definite health benefits coming from green exercise simultaneously from physical activity and contact with nature. Cudworth and Lumber (2021) agree with this by saying that forest schools  a physical way to create a pathway to a connection to nature which can massively help people have much better levels of health and wellbeing. Pasanen, Tyrväinen and Korpela, (2014) agree with this by saying that living nearby green elements has a connection to longevity (Takano, Nakamura, & Watanabe, 2002) and a decrease in mortality rates (Mitchell and Popham, 2008). Other papers found that there was a decrease in blood pressure with green exercise Bayrakdar, Bayraktar, and Thaqi, (2022) found that in their study there was a decrease in blood pressure after the use of green exercise. If we can use this for the benefit of inner-city youth, we can stop high blood pressure becoming a problem at a younger age as fatty and unhealthy foods are common in cities therefore this will be incredibly beneficial for the health of inner city youth. making sure that the youth are aware of how their health can affect them in the future is also an extremely important aspect as they will learn about the importance of exercise and environmental conservation. By integrating lessons on the benefits of green spaces for health and wellbeing we can empower the youth to make healthier choices for themselves and their community. Pushing forward the need to making healthier choices will massively help to create more health and wellbeing within the inner city youth and will allow for more progression.

Green exercise is known for being a healthy and positive way of impacting mental health and physical activity through the use of exercise in green areas and is useful for all ages (Das and Gailey, 2022). It has many benefits that can help us such as improved self-esteem and mood as well as a reduced amount of anxiety and depression. Kajosaari, and Pasanen, (2021) agree with this statement as they made a study on the use of green exercise, they found that there was a positive reaction to exercising within different environments helps to positively effect mental wellbeing and psychological restoration. Sun, et al, (2021) also agreed with this by talking about their study's results made a

significant increase of psychological restoration with blue space flowed by green space and sport grounds. This confirms that the green exercise can be applied to the wellbeing and mental health of inner city youth by giving them opportunities with the use of outdoors and recreational use by allowing the youth into areas where they can develop skills, confidence and understanding of self-worth (Kakkar, 2022). Giving youth these skills and self-motivating aspects will greatly increase the mental health of inner-city youth by allowing them to explore their surroundings, connect with nature and engage in physical activity's, all of which are known to have positive effects on mental wellbeing. Furthermore, by fostering a sense of accomplishment though outdoor activities, youth will be able to develop more of a resilience to deal with everyday problems in their lives allowing for more space to grow and mature (Marselle, Warber, and Irvine, 2019). This not only improves mental health but also encourages more of a healthy life within the youth as they will feel more inclined to keep being healthy. It also helps that we look into the fact that the youth need to be exposed to green exercise so they can develop their connection to nature. Fitting to Wood, and Smyth, (2020) looking into how green exercise is crucial for the development of connection to nature at an early age it is imperative for us to make sure that we expose youth at an early age to nature or natural settings as it can be used to foster healthier lifestyles, more motivation, better equipped youth and protect them for the future. Exercise alone already helps with reduced blood pressure, increased self-esteem and has a positive effect on our moods. Pretty, et al, (2005) agrees with this statement as well as mentioning that green exercise can massively help with mental benefits that can help people massively with greater public and environmental health. Keniger, et al, (2013) gives us reason to believe this as there study made advancements such as benefits towards physical health, cognitive performance, and psychological wellbeing all which contribute to benefiting inner-city youth (Bratman, et al, 2019) (Martin, et al, 2020). This increase within wellbeing and physical health is exactly what we want to see as it shows that there is clear indication that green exercise can be used as a positive and effective way of benefiting the inner-city youth by giving them the opportunity to grow and prosper. Rogerson, et al, (2020) mentions that there are considerable benefits with green exercise their study found that green exercises could be used to improve positive neurological changes. These positive neurological changes will have huge amount of benefits helping emotional regulation, cognitive skill development, resilience, physical health, and long term wellbeing.

8 Emotional regulation

Emotional regulation can immensely help the youth to manage their stress, anxiety, and anger more efficiently which will grant them more of a control of themselves and stop them from doing risky behaviour and substance abuse. According to Daniel, Abdel-Baki, and Hall, (2020) emotional regulation has brought forward protective factors behaviour and psychological welfare for children and adolescents specifically reducing symptoms of depression and anxiety, improved mental health outcomes and reduced internalizing and externalizing difficulties. This shows that emotional

regulation can help inner city youth by allowing for them to expand their own development within health and wellbeing by giving them the necessary progression and advantages.

Cognitive skill development

Neurological changes also help to create cognitive skill development as said before which can be a massive help to personal wellbeing within people as it helps to create thinking skills that allow them to help with their personal wellbeing. Van Tonder, Kloppers, and Grosser, (2022) found that in there study of cognitive education there are massive amounts of benefits that contribute to personal wellbeing such as perseverance, curiosity, inquisitiveness, questioning, and systematic working ways (Guglielmino, 2013, Barrett, 2014, Obied, and Gad, 2017). All of these show that the use of developing cognitive skills can be a massive help for contributing towards developing inner city youths' wellbeing. By allowing them to develop these skills it will give them the direction and focus to better themselves into progressing as individuals pushing them to progress with the development of neurological changes. Strengthened neural pathways can foster resilience in inner-city youth allowing them to bounce back from adversity and overcome challenges more effectively.

Resilience and physical health

With the use of green space for exercise we can increase the amount of resilience within youth as the use of green space found to buffer the effect of life stress as well as help urban children living in poor families to have better emotional health within earlier years of their lives (Flouri, Midouhas, and Joshi, 2014). By showing that there is clear indication to the fact that resilience can be used to help inner-city youth to progress even further with health and wellbeing. Positive neurological changes can also have an indirect effect on physical health though behaviours such as improved impulse control, better decision making regarding nutrition and exercise, and reduced engagement within risky activities that can lead to injury or illness. good but needs ref Promoting health neurological development, inner-city youth are better equipped to thrive not only within adolescents but also throughout adulthood. Positive changes in the brain structure and function during critical development periods can have long lasting effects on mental health, academic and occupational success as well as overall wellbeing.

[Explain further](#)

Nature connectedness

Health and wellbeing are an important part of our youth in today society and 9 y's it can be harder for them to find connections to nature when some have never left the city. Showing that green exercise can give us more nature connectedness to help with younger generations will allow understanding of how it can be helpful to health and wellbeing for youth. Arola, et al, (2023) found in their studies that nature connectedness had great positive effects on wellbeing within children they found that there were restorative benefits as well as a change in positive mood with calming some students down and lifting spirits. Nature connectedness is our way to become more engrossed in

ourselves and other people by using the natural environment with an increase in wellbeing for young adults. Richardson, et al, (2021) talks about how studies on students taking outdoor courses such as biology, environmental studies, earth sciences, geography had a much higher levels of vitality at the end of their semester compared to non-nature based courses. This shows that there is a more positive effect from students that have been influenced by nature and that they have had higher results compared to non-nature based trips. Dale, et al, (2020) also found evidence that showed that students benefit from nature based trips as they became more engaged when they got back into an indoor setting with more of an understanding and positive attitude and interaction with other students (Garst, 2018). Nature connectedness can be utilised in many ways to allow for inner-city youth to develop as it will give them a grater handle on psychological wellbeing and attention restoration, Samus, et al (2022) found that evidence though the urban green spaces, these points are increased though connection to nature. By allowing green spaces to be applied to the health and wellbeing of inner-city youth we can see that there is evidence that we can utilise this connection to nature to further the bonds with youth and wellbeing allowing for more development as well as higher understanding of what is needed for them to progress further. Nature connectedness will also allow for more of an understanding for youth of why they need these natural areas as places of rest and enjoyment which can massively impact there development and enrichment within outdoor education. Bowers, Larson, and Parry, (2021) found reason to agree as they found that nature connectedness within youth has a huge amount of benefits that can allow them to find more enjoyment and greater understanding with nature can be a great benefit to youth development. Some of these benefits linked to mental health included improved physical health, attention restoration (Kaplan, 1995), cognitive function (Bratman, et al, 2019), emotional wellbeing (Capaldi, et al, 2015), stress reduction (Hunter, Gillespie, and Chen, 2019), and social relationships (Weinstein, Przybylski, and Ryan, 2009). They found that direct and indirect links to nature has created positive wellbeing and positive outcomes in diverse youth as well as green spaces providing opportunities for authentic engagement and spiritual connection nature can be a key asset to developing place based youth development (Benson, and Saito, 2001, Shek, et al, 2019).

Community and social skills

For a lot of inner-city youth, it can be hard for them to make by with less access to clean a healthier lifestyle than most. gang and drug crime become a reason for lowering health and wellbeing of the inner city youth by putting fear of going outside not only in the youth but parents to. However, Krefis, et al, (2018) made the argument that with access to shopping, culture, sport amenities and an attractive city there was an increase in happiness and wellbeing. This shows that with access to areas for development there is an increase in health and wellbeing of inner-city youth that is positive. Bates, Bohnert, and Gerstein, (2018) found in there study that there is development with green schools reported increase in perception of safety, fewer injuries, less teasing and bullying and less gang

activity. This could help attribute to various factors such as improved physical environments, well designed places that are safe. With lack of bullying, it can bring forth cooperation, empathy, and respect among students. By allowing for students to feel respected and more of an incentive for them to explore the people around them and become more engrossed in their community. By giving the inner-city youth community we can give them a common reason to interact and come together in a positive light this will foster health and wellbeing. Pastor, and Morello-Frosch, (2014) found that communities that share knowledge and work together to create an environment with enjoyed repeated interactions that develop trust and forge a new collective knowledge base that guides future practice. Proving that community is beneficial for wellbeing and health green exercise can help to bring forth this community as it will be one of the founding parts that brings people together. Studies made by O'Sullivan, et al, (2016) found that there was a significant decrease in the amount of mood disturbances, improvement in self-esteem, and more evidence pointing to social interaction within the community.

Other authors have come to the attention that green spaces in cities have a positive effect on health as wellbeing and that using green exercise allows for better health development. Pietilä, et al, (2015) agree with this by saying their study found out that having green spaces in city areas helped to accumulate more health and wellbeing by having areas to exercise closer to their homes. Ojala, et al, (2019). papers agree with their study's stating that urban nature orientedness and noise sensitivity have a relationship with perceived restorative outcomes and vitality in green environments this showed that that urban nature orientedness and noise sensitivity affect restoration differently in different environments. With this information it is safe to say that green exercise can be used in a positive light for inner-city youth by allowing them to have a greater success if they incorporate green spaces into cities to provide opportunities of for physical exercise as well as contributing to psychological restoration and vitality. Focusing on how we can help city youth with psychological restoration we can look into how it helps mental health and wellbeing for these youth. Green spaces have been known for improving the impacts of psychological restoration and though this psychological restoration has been able to increase in perceptions of general belonging, decreases in loneliness and improved subjective mood (Neale, Lopez, and Roe, 2021). These benefits all help with the wellbeing and health of inner-city youth general belonging will give them more place within their community and with their peers as a lot of youth suffer from not finding their place in our world today and struggle to make connection with each other (Henseler, 2021). Loneliness is a huge impact on the youth's mental health as social isolation has many negative impacts and can cause many mental health problems this was especially true with COVID splitting up a lot of youth for a long period of time. Loades, et al, (2020) agrees with this with their study finding that children and adolescents experience high levels of anxiety and depression after long periods of isolation. This shows that a decrease in loneliness from green exercise and green spaces have massive beneficial impacts on the health

and wellbeing for the inner-city youth as it will give them reason to interact with one another and bring forth groups of community with each other.

Welsh Government contribution

Welsh Government have made plans as well to help youth by giving them a higher quality of outdoor learning which has said that it has had an improved outcome of health and wellbeing. They have done this though funding and supporting outdoor learning operation such as *higher quality of outdoor learning* (Welsh government 2018). Very Good! giving schools and youth groups opportunities to explore outdoor areas with field trips, outdoor education centres, and adventure programs. Indicators within these plans have showed positive self-image, adopted healthier lifestyle, physical health improvement, a want to continue their outdoor beyond school and adult life, an awareness of the links of physical and emotional wellbeing etc. (Welsh government. High Quality Outdoor Learning for Wales, 2018). With the Welsh government giving people the chance to improve health and wellbeing within their country the inner-city youth within Wales will be able to thrive as well as being educated on the use of higher quality outdoor learning. This outdoor learning massively helps with health and wellbeing within inner-city youth as there have been indicators in the High Quality Outdoor Learning for Wales, (2018) where they referenced Allen and Balfour, (2014). They stated that by increasing the engagement with the natural environment can create a number of beneficial health outcomes that can increase better levels of physical activity, help tackle childhood obesity, as well as greater wellbeing and improved health. Healthy Weight - gov Wales (2023) also agreed with this by explain case studies that green areas have been able to create more healthier environments for people to explore which can help to benefit there mental health and physical wellbeing. Wales striving for a healthier environment it will allow for inner-city youth to be able to benefit from this as they will want to progress city youth into areas where they can flourish and nurture their development, health, and wellbeing for the better. By allowing more access to green space we can use it for more green exercise which in turn can be used as a beneficial way of improving inner city's youths' health and wellbeing.

Mood and stress reduction

Green exercise has led to an increase in better mood and self-esteem, reduced stress, restored mental fatigue as well as health and sport performance has increased because of green and blue spaces and due to green exercise taking place in those space (Loureiro, N., Calmeiro, (2021). Inner-city youth can benefit from this with the help from green exercise as it will be a great help for their mental and physical health as these are features that can be hard to keep up within city's especially for youth. With a better mood and self-esteem, they will be able to focus and allow for higher concentration with work due to having regenerated there mental state. Zhang, et al, (2023) found that there was truth in this as that there research there was a significant amount of improvement with self-esteem and positive mood after green exercise. This increase in positive mood shows us that though green

exercise we will be able to bring forth their wellbeing as it gives them a better change in behavior and with other peers as well as enjoyment with themselves. Zhang, et al, (2020) found in their study that green space had a considerable amount of stress reduction as well beneficial relationships with improved depression, behavior, emotional wellbeing, mental health. With this information it shows us how association with green space can help to bring forth inner-city youth's health and wellbeing and by using green exercise within these green spaces for their benefit. By utilising green space to the maximum with green exercise youth will be able to enjoy and flourish in positive areas that can help them to create life connections with peers, enjoyment of life and progression to adulthood. This will also allow for personal growth within the youth as it will bring confidence to achieve set goals, challenges and overcome obstacles with the use of green exercise and green spaces to allow the development of self-expression, creativity, and personal exploration, nurturing holistic development within youth. Developing these skills will allow for a much steadier growth to adult hood and will greatly increase their health and wellbeing.

Nature therapy

Another avenue we can look at with green exercise is the use it can allow for nature therapy  13 place. Harper, Rose, and Segal, (2019) talk about nature therapy and how it is good for children, youth, and families. they found that certain studies where children had less access to green spaces had more cases of obesity and diabetes. Conversely, children with increased contact with to nature had boost in physical and mental development. Youth with access to parks and nature spaces living in urban settings showed a much greater development within motor skills than those who played in traditional parks. traditional parks refer to parks that are more conventional in design and may not prioritise natural elements or green spaces as much as parks and natural spaces in urban areas. On the other hand, parks and natural spaces in urban spaces are characterised by the integration of natural elements such as trees, grassy areas, water features and trails within an urban environment. With the help of nature therapy paired with green exercise we can allow for greater development of health and wellbeing and other skills that can be used to progress these youth into flourishing adults to make a much more of a smoother transition into adult hood as well as bring forth recovery of any previous mental or physical scars. Hauge, et al, (2023) agrees with this explanation as their study found out there was a huge amount of benefits that can come from nature that can progress development though the use of nature therapy. Both papers from Harper, Rose, and Segal (2019) and Hauge, et al, (2023) have similar characteristics that follow in the direction of using the outdoors for therapy and how it has led to development of certain aspect within youth and adolescents. By allowing for development within these areas of nature we can see that they can be used for the betterment of youth and will allow for future development for skills that will be useful in later life and will prepare them for possible outcomes in future. Furthermore, the benefits of green exercise and nature therapy extend beyond immediate health and development outcomes, influencing long term wellbeing and life

trajectory. Research indicates that with increased engagement to nature-based activities can allow for physical health, mental wellbeing and cognitive function though long term effects that can go throughout adulthood. Youth who adopt an early active lifestyle will be able to reduce and prevent health problems for the future such as obesity, diabetes, and other chronic conditions later in life (Coventry, et al, 2021, Leavell, et al, 2019). Moreover, the restorative qualities of nature promote lifelong mental health resilience, with decreased rates of depression, anxiety, and stress observing in adults who have been able to keep in contact with natural environments. Chawla, (2015) agrees with this as they found in their study that exposure to natural areas for youth has massive advantages in the future such as reduced stress, better life management and interaction with other peers. Beyond physical health problems early interaction with nature fosters a sense of environmental stewardship, leading to sustainable lifestyle choices and conservation efforts in adulthood. By recognising the long term impact of green exercise and nature therapy, we underscore the importance of integrating these interventions into the youth development programs and policies, ensuring lasting benefits for future generation.

Positive youth development

Additional way green exercise that helps youth would be positive youth development with the help of green exercise can lead to many positive impacts. Bates, Bohnert, and Gerstein, (2018) made studies on how green spaces are a positive way of developing youth. they found that physical activity within these green spaces contributed to mitigating physical health risks and promotes classroom engagement. There was also a huge amount of positive social interactions between the children and a decrease of negative social interactions. This shows that though this personal youth development and the use of green exercise it can allow for children to make connections with their peers much easier allowing for more connections to be made in friend groups progressing to more wellbeing. Also, by mitigating health risks will allow for healthier youth and allow for them to progress and participate further into the physical activity allowing for more development and more social interaction which will help to bring up their health and wellbeing even further. Rogerson, Colbeck, et al, (2020) agree with this by finding in their study that group use of green exercise can have more benefit's than doing it alone. They found that it enhanced the participation of green exercise allowing for more people to get involved with outdoor and green exercise. This contribution allows for more understanding of why green exercise can be useful for inner city youth as its all good saying that it can do great achievements for them but getting them to come back to doing multiple times is the key as it will motivate them more, allow for more development of social skills and in turn increase health and wellbeing.

Weakness's

Unfortunately, there are barriers that stop inner-city youth from being able to access green exercise. Examples of this can be varied from lack of green space around them, lack of motivation due to depression, physical health of youth, safety concerns, feelings of not being welcomed, etc. Ward, et al, (2023) found that a lot of people agree with this as they found that safety concerns mainly with women and people with low income was one of the biggest issues as a lot of people don't trust the parks as they are high areas for mugging and wanted more improvements to the green spaces with a limit to anti-social behavior in parks. Green space is one of the main disadvantages as the inner-city youth may not be able to access it as it can be in short supply within cities. This means that there is limited space already when people are trying to do green exercise within city's and this can lead to overcrowding of certain areas. Other limitations will also vary from weather, physical limitation of youth, environmental impact, dependency of transportation, social factors, safety concerns, seasonal limitations, equipment and gear, regulatory restriction. Many of these limitations have the ability to halt or stop green exercise from progressing.

Conclusion

Overall, I have found that green exercise is a great beneficial and positive way of getting inner-city youth to interact with nature and exercise so they can bring forth their own mental health and wellbeing. There has been clear indication within this discussion that green exercise can benefit them with neurological changes, the Welsh government have created better systems and higher quality of outdoor learning, improved physical health as well as mental health. There have also been many reasons to believe that with green exercise the youth can become better prepared for the future generations. This discussion has expressed and detailed deeply many of the benefits of green exercise and has explored on how it can be used to improve health and wellbeing, particularly the inner-city youth. With the exploration of inner-city youth using green exercise, we have been able to understand why it is beneficial for them and how it can be utilised to the best ability to give them the best head start. Largely, this paper has looked into the benefits of green exercise and how they can be of use to the inner-city youth of today. Mainly focusing on health and wellbeing I have been able to find vast amounts of evidence that can improve health and wellbeing in a positive and active way that helps to develop them for their futures. Exploring green exercise and its potential benefits for inner-city youth has revealed a large amount of wealth and opportunities for them within health and wellbeing (Thompson Coon, et al, 2011). By concentrating on the nexus between physical activity and nature immersion, this paper has underscored the transformative potential of incorporating green spaces into the lives of inner-city youth. Significant findings within this research is the amount that physical health can be increased from green exercise. This paper has found that health can be increased greatly by engaging in activities such as hiking, cycling, or spending time with nature as youth will be able to create significant psychological benefits, including cardiovascular health, enhanced immune factors,

and overall better fitness levels (Markevych, et al, 2017). These finding underspin the importance of integrating outdoor recreational opportunities into urban landscapes in order to promote active lifestyles and combat sedentary behaviours often associated with inner-city youth. Furthermore, the use of green exercise has gone beyond just physical health but also mental and emotional wellbeing. Time spent in nature has resulted in reduced stress, improved mood, enhanced cognitive function with young people, increased social skills, as well as positive neurological changes. By giving a way to escape from the realism and pressures of everyday life we can provide an area of comfort by fostering a sense of nature connectedness, green spaces become an invaluable resource for promoting holistic, wellbeing among inner-city youth. In light of these findings, it is evident that green exercise represents and valuable tool for nurturing the physical, mental, and emotional wellbeing of inner-city youth (Burls, 2007). By leveraging the inherent therapeutic qualities of nature, policy maker, educators, and community leaders can work collaboratively to create inclusive and accessible green spaces that cater to the diverse needs of inner-city youth. Though targeted interventions and programming, we can ensure that all young people have equitable access to the transformative benefits of green exercise, thereby empowering them to thrive in their futures. These findings have sown us the capabilities that green exercise can do for inner-city youth combined with how it can used to help and improve for their futures. This paper has shown evidence green exercise's key points of focus such has mental health, emotional wellbeing, psychological changes etc. can be linked together with many different studies and papers. For example, Rogerson, et al, (2020) has many of the same key words and themes as Lahart, et al (2019) such as green exercise, mental health, and mental wellbeing. This has shown the link between papers and has been seen used if multiple different points of my study to show how it can be connected together. Evidence has been presented that proves the benefits can be used in futures to prepare and develop these youth so that when they transition into adulthood, they will have the necessary skills and experiences to do so. I also personally believe that with the proper guidance and the use of green exercise this exploration can be used for the betterment of inner-city youth. This goes from their social skills, mental health, emotional wellbeing, I believe that it all improves tremendously with the help of green exercise.

Acknowledgments



I wish to acknowledge Granam Harvey and Jonathan Haylock my lecturers who have helped me think though and progress this independent project to the best of their abilities. Without their help I wouldn't have been able to finish this project at all and would have been stuck still thinking of a name for the project. They also gave me the confidence and encouragement that I needed to stay motivated and not to deter from this project. Denise Leonard and Thomas Moore have also been a great help to my surport at university and have been great lectures who have given me understanding and encouragement when I needed it. I also wish to thank my family for helping me though university and giving me love and surport though my stay at university. And finally, I wish to thank my friends who

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An exploration of the role that green exercise could play in improving the health and well-being of inner-city youth.

GRADEMARK REPORT

FINAL GRADE

51 /100

GENERAL COMMENTS

Overall Comments:

Your abstract is excellent, it clearly explains what your study will address, why its relevant, how you will do it and key findings.

Your introduction is less well structured with lots of statements relating to the purposes of your study. Many of these overlap slightly, leading to an element of repetition and confusion. Some of these objectives require further explanation/ clarification. Overall, you do establish the general goals of your enquiry.

Your methodology is rather vague. There is a lack of basic detail regarding how you searched and any inclusion or exclusion criteria you employed. There is also no recognition of a specific research paradigm. I am pleased that you make a very good effort to address ethical issues and are aware of the potential for bias.

You provide a comprehensive account of the various benefits of green exercise and support each with a very good range of relevant, good quality literature. However, in places there is no mention of how the attributes you identify are linked to green exercise and in others there are only tenuous links. There is a lot of repetition and little in the way of progress or direction in your writing. Mostly you simply describe the findings of each source and use this to build a patchwork of evidence to support the notion of green exercise.

You raise lots of interesting and valid points in your review. I appreciate your attempts to link the various sources, but often these links are tenuous or poorly stated. There are some instances where you do effectively combine different sources and this

adds some depth to your work

Whilst you have a short section on "weaknesses" there is no real attempt to write critically. Instead you offer a relatively simple discussion of the positive aspects of green exercise and other aspects of health and wellbeing. The lack of critical writing significantly limits the academic value of your work.

Your conclusion corresponds well with the main body of your writing and effectively draws together the main points that you have identified.

There are a lot grammatical and typing errors throughout your work. It also seems that you are using some words and phrases indiscriminately or without understanding exactly what they mean. Overall, this makes your work quite challenging and time consuming to read. I spent a lot of time rereading passages and trying to understand what you have written. I appreciate that you have taken the bold step to attempt this significant piece of work without the assistance of learning support, but the mark awarded can only reflect the quality of the work that you have submitted rather than the effort that you have put into it. . Whilst the mark might be quite low, I am really pleased with what you have done, and full of respect for the fact that you have completed a dissertation of this quality without additional support. Well done!

GH

Second Marker Comments:

You made some good points through your Introduction. In some places the sections lacked clarity of direction.

There were opportunities to strengthen your points with literature throughout. For example, defining "inner-city".

Your methodology has made some good considerations (ethics) however there is little detail of the process and research design.

Your discussion shares some interesting points however some of the writing is descriptive.

Good conclusions made

Agreed Mark: 51

PAGE 1

QM

Excellent!

Excellent!

Strikethrough.

Strikethrough.

PAGE 2

QM

Good point

Good point well presented.



Comment 3

its good that you have identified an age range, but you need to provide some further justification of why this rather large range has been chosen.



Comment 4

this is well written but you should give some examples of the unique benefits or state that you will discuss them further on.

QM

good

Good

QM

Very Good!

Very good

QM

Excellent!

Excellent!

QM

Very Good!

Very good

PAGE 3

QM

good but needs ref

good but could be improved with reference to some supporting literature

your ideas are sound but without references that show that you are not the only person who has this idea then your point is a basic personal idea.

QM

good

Good

PAGE 4

QM

good

Good

QM

Explain further

This a key issue that needs further explanation



Comment 5

This content is really better placed within your discussion, its not strictly a methodological consideration, although I can see how these considerations might be linked to your method.

PAGE 5

QM

Very Good!

Very good

QM

good but needs ref

good but could be improved with reference to some supporting literature

your ideas are sound but without references that show that you are not the only person who has this idea then your point is a basic personal idea.

PAGE 6



Comment 6

You need to explain how forest schools relate to green exercise- they can be very sedentary!

PAGE 7

QM

Badly written

This is difficult to understand.

Please check your work more carefully!



Comment 7

this is a vague word and one that you are using too frequently.



Comment 8

there is no mention of green exercise in either of these sections.

PAGE 8

QM

good but needs ref

good but could be improved with reference to some supporting literature

your ideas are sound but without references that show that you are not the only person who has this idea then your point is a basic personal idea.

QM

Explain further

This is a key issue that needs further explanation

Additional Comment

This is a potentially important aspect and one worth much more attention. How does green exercise enhance resilience?



Comment 9

i am really struggling to understand the logic of what you have written in this section

PAGE 9



Comment 10

but there is no mention of green/ nature here!?

PAGE 10



Comment 11

not all green exercise is sociable. e.g., running in a park at night or with headphones on

PAGE 11

QM

Very Good!

Very good



Comment 12

I am pleased that you have referred to inner-cities here.

PAGE 12



Comment 13

green exercise might be described as therapeutic, but nature therapy is a specific practice. Not all nature therapy is necessarily green exercise, and not all green exercise is nature therapy! .

PAGE 13

PAGE 14



Comment 14

That is quite an impressive sentence!

PAGE 15



Comment 15

Its very touching that you shown your appreciation to those who have supported you- but this should be at the start of your work, before the abstract.

PAGE 16

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GRADING FORM: BMSS6007 INDEPENDENTPROJECT 24

BEN MATHIESON

51

1. ENGAGEMENT WITH LITERATURE

A clear rationale for the project should be presented, with evidence of the literature having been critically reviewed and appropriate literature selected for inclusion. The literature should also be critically reviewed to identify the most suitable and valid methods and data analysis approach. (25 marks available)



Engagement with a wide range of research-informed literature, including sources retrieved independently.

Selection of relevant and credible sources. Very good use of referencing, with no/very few inaccuracies or inconsistencies.

15

2. KNOWLEDGE AND UNDERSTANDING

The project should display evidence that the chosen research topic is understood at an advanced level, including the suitability of the research design chosen and the methods and data analysis used. (25 marks available)



Knowledge is reasonably detailed, accurate with a good systematic understanding of the field of study and to some extent, current research and scholarship

13

3. COGNITIVE AND INTELLECTUAL

The project should display evidence of higher level thinking and an ability to evaluate research resources to present and conduct a well thought out piece of research. The selection of a research design, methods, data analysis and selection of results for presentation should be appropriate for this level of study. (30 marks available)



Limited attempt at critical thinking, analysis, synthesis and evaluation, tending towards description.

14

Some evidence to support emerging arguments and judgements but these may be underdeveloped or with a little inconsistency / mis-interpretation. Asserts rather than argues a case.

4. PRACTICAL SKILLS

The project should be informed by any relevant guidelines and standards of best practice. The practical implications of the project should be clearly identified. (10 marks available)



A good and appropriate application of standard methods, materials, tools and/or techniques. Clear appreciation of the context of the application. Mainly consistent, accurate and logical application of theory to practice, making appropriate links between the two. Can identify problems and propose mostly appropriate solutions in complex and unpredictable contexts.

5

5. TRANSFERABLE SKILLS

You should demonstrate of the ability to communicate clearly through written work which is correctly referenced. The project should be structured and organised appropriately for the discipline selected. (10 marks available)



Mostly ordered presentation and structure in which relevant ideas / concepts are reasonably expressed.

4

Work may lack coherence in places. Demonstrates the basic skills required in graduate employment, with some areas of minor weakness