INTERNATIONAL JOURNAL OF PROGRESSIVE RESEARCH IN ENGINEERING MANAGEMENT AND SCIENCE (IJPREMS)

e-ISSN : 2583-1062

Impact Factor : 5.725

www.ijprems.com
editor@ijprems.com

Vol. 03, Issue 05, May 2023, pp : 1272-1275

HEALTH BENEFITS OF CITYMALL NORTH TOWN GREEN SPACES

Abegail L. Olita[1]

[1]Student, Master of Science in Development Administration major in Urban and Environmental Planning, College of Development Management, University of Southeastern Philippines, Philippines

ABSTRACT

Human health is significantly influenced by green spaces. Green areas like parks, gardens, forests, and other natural areas are essential for improving both urban and rural quality of life. This study aims to determine the health benefits of the CityMall North Town Green Spaces for the residents of Barangay Cabantian. Quantitative research using an exploratory design was employed. A total of 100 respondents living in Barangay Cabantian were recruited using a purposive sampling technique to answer a 32-item research-made questionnaire. The study revealed the following health benefits: mental health, cognitive development (for kids and the elderly), physical health, respiratory health, immune system support, improved sleep quality, and cardiovascular health.

Keywords: Green Spaces, Health Benefits, CityMall North Town, Quantitative Research

1. INTRODUCTION

The availability and protection of green spaces within urban areas have become more crucial as urbanization spreads around the globe. Green spaces greatly improve the quality of our lives and the well-being of communities. These natural spaces offer us a number of advantages, whether it's a large park, a community garden, or a road lined with trees. Beyond their aesthetic value, green spaces are essential because they are havens of peace that let us reconnect with nature and provide a break from the bustle of city life. For both locals and the urban ecosystem as a whole, these green spaces have a number of advantages in terms of the environment, society, and health. According to Jabbar et al. (2021), even a single window view of greenery improves work performance and prevents negative health impacts from stressful life events. Therefore, green spaces offer a peaceful environment to unwind in for the psychological and mental well-being of an individual.

The Philippines is home to a variety of green spaces that not only offer aesthetic enjoyment but also improve the health and well-being of its people. Among these are Rizal Park (Luneta Park) in Manila, Ayala Triangle Gardens in Makati, La Mesa Ecopark in Quezon City, Puerto Princesa Subterranean River National Park in Palawan, Mount Apo Natural Park in Mindanao, and Banaue Rice Terraces in Ifugao.

Davao City is now experiencing a better lifestyle as Alsons Development and Investment Corporation (Alsons Dev) launches its first mixed-use development in the area, Northtown Center, which is located along the Cabantian. Northtown Center aims to offer residents of Northtown and nearby communities a vibrant, balanced, and complete lifestyle by combining the natural beauty of the countryside with the conveniences of the bustling city. Designed to be nature and people-centered, Northtown Center is envisioned as a lush, breathable space for Cabantian residents, where they can shop, dine, stroll, or even bike around. Northtown Center also houses Davao City's first-ever branch of City Mall, which provides a wide variety of dining and shopping options. The huge park is located at the back of City Mall, where the residents can enjoy the beauty of nature with a stunning sunset view and a mini playground for the kids. An area for physical activities like walking, running, cycling, and even playing sports and Zumba as well.

Green spaces enhance environmental sustainability, encourage biodiversity conservation, and provide economic benefits in addition to improving people's physical, mental, and social well-being. According to Jabbar et al. (2021), green spaces provide a place for exercise, running, walking, cycling, and other recreational activities that enhance human physical health and well-being. Also, by removing social isolation, urban green spaces benefit the mental and psychological health of older people. Furthermore, they evaluated human well-being under six sub-themes: physical, psychological, mental, social, subjective, and environmental well-being. Due to strong positive associations, the review came to the conclusion that urban green areas are an essential component of a sustainable urban environment and human well-being.

2. METHODOLOGY

This study employed a quantitative research design using a survey questionnaire among 100 respondents living in Barangay Cabantian. A total of 32-item researcher-made questionnaires using a purposive sampling technique to gather data from primary sources. The health benefits of CityMall North Town green spaces to the residents of Barangay Cabantian will be analyzed and interpreted through the use of Exploratory Factor Analysis (EFA) in the study. With the COVID-19 pandemic's limits and regulations, online data collection methods such as online interviews, Google Forms (surveys and questionnaires), etc. are the most efficient way to do qualitative and quantitative research (Torrentira, 2020).

INTERNATIONAL JOURNAL OF PROGRESSIVE RESEARCH IN ENGINEERING MANAGEMENT AND SCIENCE (IJPREMS)

e-ISSN : 2583-1062

Impact Factor : 5.725

www.ijprems.com
editor@ijprems.com

Vol. 03, Issue 05, May 2023, pp : 1272-1275

3. RESULTS AND DISCUSSION

This study revealed the health benefits of CityMall North Town green spaces to the residents of Barangay Cabantian. Data were analyzed and interpreted using exploratory factor analysis, and the results of the Kaiser-Meyer-Olkin, Bartlett's Test, and principal component analysis were presented to validate the discussion of the study. According to the criteria, a total of 32 items were divided into the following seven constructs:

a. Mental Health

Mental well-being is a state in which humans can realize their potential, work productively, handle life's stresses, and generally engage in society (Jabbar et al., 2021). With all of the pressures and stresses of modern life, green spaces have become powerful allies in developing mental health. It has been studied how urban green spaces function as a stress and anxiety-relieving zone for people. According to Gascon et al. (2018), green spaces enhance people's mental health by lowering anxiety and releasing depression while also purifying the air, reducing noise, and offering areas for physical activity and social connection. It has been demonstrated that spending time in nature lessens stress, anxiety, and depression. Natural environments' sights, sounds, and scents have a calming influence on the mind, fostering relaxation and peace of mind. People can reconnect with themselves and find relief in the beauty of nature in green spaces, which act as a therapeutic break from the pressure and noise of city life. Being in green spaces also increases happiness, life satisfaction, and contentment. Undergraduate students in the United States were shown to be happier and more relaxed than their peers when they maintained contact with green places (wooded and open). The study came to the conclusion that students' health and life satisfaction were improved when passive green spaces in universities were restored (Holt et al., 2019). Adults who work in environments with high levels of stress are thought to benefit greatly from nature. Being close to nature at work not only increases employee satisfaction but also fosters productivity, creativity, and happiness (Rao et al., 2022).

b. Cognitive Development (for kids and the elderly)

Nature has a unique capacity to improve mental performance and restore cognitive function. According to studies, being in nature enhances creativity, memory retention, and focus. Green settings' tranquility and simplicity allow our minds to rest, which boosts productivity, mental clarity, and cognitive ability. The chances for social connection and physical activity offered by green space improve cognitive wellness. Families can bring their kids to areas with green spaces. Exposure to residential areas surrounding green space was linked to improved cognitive abilities in children aged 9 to 12 (Saenen, N.D., Nawrot, T.S., Hautekiet, P., *et al.*, 2023). Children's cognitive ability, imagination, and curiosity are stimulated when they interact with nature in green spaces. Furthermore, a person's cognitive health in middle age is a reliable indicator of their likelihood of developing dementia later in life. According to Jimenez et al. (2022), middle-aged women's cognition function may be improved by adding green space to residential areas; this link may be explained by a decline in depression, which is also a risk factor for dementia. Long-term exposure to green spaces may improve age-related health outcomes by preserving cognitive and physical function, lowering arterial stiffness, and lowering the risk of metabolic syndrome (Keijzer, 2019).

c. Physical Health

Green spaces provide opportunities for physical activity like walking, jogging, cycling, and playing sports. People who have greater access to green spaces, such as parks and hiking trails, are more likely to walk and engage in other forms of physical activity. People are more inclined to walk or ride a bike to those locations and use the park for physical activity. Therefore, increasing the accessibility of urban green spaces can motivate more locals to engage in physical activity, which will boost their use of green space and improve their health. Additionally, preserving the security of the urban green open space and reducing the travel time from homes to the green open space can assure the safety of inhabitants and further encourage physical activity (Wang et al., 2019). Furthermore, a study by Ellaway et al. (2005) that analyzed data gathered in eight European nations revealed that respondents whose living environment has high levels of greenery have a likelihood of being more physically active that is more than three times as high, and the likelihood of being overweight or obese is roughly 40% less. Urban green areas can play a significant role in encouraging urban dwellers to lead active lifestyles, thereby lowering health concerns including overweight and obesity. However, depending on the target demographic and physical activity outcomes, like achieving physical activity needs or frequency of involvement, the general evidence of the influence of green space on physical activity is inconsistent. This is probably because frequent use of these venues is required, which is related to concerns with motivation, perceived value, and accessibility (Kaczynski and Henderson, 2008).

d. Respiratory Health

In our increasingly urbanized and industrialized societies, our respiratory health is significantly impacted by the quality of the air we breathe. The health of the lungs and respiratory system is seriously threatened by air pollution,

which is caused by sources such as industrial operations, vehicle emissions, and other sources. In order to lower the number of pollutants in the air, trees and plants are essential for absorbing carbon dioxide, releasing oxygen, and trapping particle matter. Cleaner air can help with lung function and respiratory health, lowering the risk of respiratory illnesses. Lambert et al. (2017) published the first comprehensive review and meta-analysis of research on residential greenness and allergy respiratory illnesses in children and adolescents and showed that there was no correlation between greenness exposure and asthma or allergic rhinitis.

e. Immune System Support

Direct contact with greenery enhances immune system performance. In a Finnish study, it was discovered that children's immune systems can become stronger quickly if their daycare center yards are given a more natural look by adding grass and forest undergrowth. According to the research, children's microbiomes can change as a result of exposure to the outdoors, improving the health of their immune systems (Da Costa and Kallay, 2020). Jiang et al. (2021) conducted a national-level study to look at county-level correlations between green space use and SARS-CoV-2 infection rates. They discovered that the prevalence of SARS-CoV-2 infection is significantly inversely correlated with forests and other green places. As a result, reducing the danger of infection may require the preservation and development of forests and other green spaces.

f. Improved Sleep Quality

These natural sanctuaries, from green parks to colorful gardens, offer people not only aesthetic beauty but also an array of health advantages, including the promotion of quality sleep. Eleven out of thirteen studies came to the conclusion that exposure to green spaces improved both the quantity and quality of sleep. The results confirm the favorable correlation between exposure to green spaces and both the quantity and quality of sleep, and they also point to therapeutic gardening and green exercise as potential intervention strategies to enhance sleep outcomes (Shin et al., 2020). According to Johnson et al. (2018), green space can influence health outcomes, as shown by the correlation between higher levels of green space and a lower risk of short sleep. If more green space and less noise are linked to better sleep outcomes, neighborhood-level modifications to reduce noise levels from industry, traffic, and other sources such as by enhancing urban greenery may have significant effects on sleep patterns as well as conditions that are impacted by sleep quality and quantity, such as metabolic effects, cognitive impairment, endocrine dysfunction, mortality, disease, and obesity.

g. Cardiovascular Health

According to the research, exposure to green spaces was linked to a lower heart rate, lower blood pressure, lower cholesterol, and a reduced incidence of stroke, asthma, diabetes, and coronary heart disease (Da Costa and Kallay, 2020). Living in places with more residential greenery lowers the risk of cardiovascular mortality. In Florida, exposure to green spaces has been linked to a lower risk of stroke death (Hu et al., 2008). According to Dalton and Jones (2020), being around greenery may protect older people from developing cardiovascular diseases. After adjusting for potential confounding factors such as age, sex, BMI, prevalent diabetes, and socio-economic status, participants who lived in the greenest areas had a 7% reduced relative risk of having CVD compared to those who lived in the least green areas.

4. CONCLUSION

Based on the findings of the study, the health benefits of CityMall North Town green spaces for the residents of Barangay Cabantian are mental health, cognitive development (for kids and the elderly), physical health, respiratory health, immune system support, improved sleep quality, and cardiovascular health. The result of this study will serve as a guide to the Department of Environment and Natural Resources to launch initiatives to educate the public on the advantages of green spaces and the necessity of their preservation, to nform the public about the advantages of green places for social cohesion, climatic resilience, and physical and mental health, and to encourage residents to take part in community gardening projects, tree-planting drives, and volunteer efforts aimed at preserving and enhancing green spaces. The policymakers should promote the incorporation of green infrastructure into urban planning and development initiatives, protect existing green spaces from encroachment, and ensure their preservation for future generations. The Local Government Unit (LGU) should identify locations for parks, gardens, and other green infrastructure by creating a comprehensive green space plan, set goals for green space expansion after evaluating the existing state of green space availability and identifying any coverage gaps, make sure that everyone in the community can easily access green spaces, place parks and recreational facilities in well-chosen locations to serve crowded neighborhoods or places lacking in green infrastructure, create infrastructure for cycling and walking, such as bike lanes and paths, to connect open places and promote active transportation and install amenities such as benches, lighting, and accessible facilities to promote

inclusivity and enable people of all abilities to enjoy these spaces. Lastly, future researchers may use the findings of this study as a reference in conducting numerous areas that need further investigation.

ACKNOWLEDGEMENTS

A special thanks first to God for giving me wisdom and strength, and to my family and friends who supported and cheered me up. You guys are the best! I know all of you will be with me until I finished this journey.

5. REFERENCES

[1] Dalton, A. and Jones, A. (2020). Residential neighbourhood greenspace is associated with reduced risk of cardiovascular disease: a prospective cohort study. PLoS ONE 15(1): e0226524

[2] Da Costa, E.M. and Kallay, T. (2020). Impacts of Green Spaces on Physical and Mental Health. URBACT Health and Greenspace Network Thematic Report No. 1

[3] Ellaway, A., Macintyre. S., and Bonnefoy, X. (2005). Graffiti, greenery, and obesity in adults: secondary analysis of European cross-sectional survey. British Medical Journal.

[4] Gascon, M., Sanchez-Benavides, G., Dadvand, P., Martinez, D., Gramunt, N., Gotsens, X., Cirach, M., Vert, C., Molinuevo, J. L., Crous-Bou, M., & Nieuwenhuijsen, M. (2018). Long-term exposure to residential green and blue spaces and anxiety and depression in adults: A cross-sectional study. Environmental Research, 162, 231–239

[5] Holt, E. W., Lombard, Q. K., Best, N., Smiley-Smith, S., & Quinn, J. E. (2019). Active and passive use of green space, health, and well-being amongst university students. International Journal of Environmental Research and Public Health, 16(3), 424

[6] Hu, Z., Liebens, J., Rao, K. R. (2008) Linking stroke mortality with air pollution, income, and greenness in northwest Florida: an ecological geographical study. International Journal of Health Geographics, Vol. 7, Article number:20.

[7] Jabbar, M., Yusoff, M.M. & Shafie, A. (2021). Assessing the role of urban green spaces for human well-being: a systematic review. *GeoJournal* 87, 4405–4423

[8] Jiang, B., Yang, Y., Chen, L., Liu, X., Wu, X., Chen, B., Webster, C., Sullivan, W., Wang, J., Lu, Y. (2021). Green spaces, especially forest, linked to lower SARS-CoV-2 infection rates: a one-year nationwide study. medRxiv 2021.08.04.21261420

[9] Jimenez MP, Elliott EG, DeVille NV, et al. (2022). Residential Green Space and Cognitive Function in a Large Cohort of Middle-Aged Women. *JAMA Netw Open.*

[10] Johnson, B., Malecki, K., Peppard, P., and Beyer, K. (2018). Exposure to Neighborhood Green Space and Sleep: Evidence from the Survey of the Health of Wisconsin Sleep Health, 4(5), pp. 413-419.

[11] Kaczynski, A.T., and Henderson, K.A. (2008). Parks and recreation settings and active living: a review of associations with physical activity function and intensity. Journal of Physical Activity and Health, 5(4), pp. 619-632.

[12] Lambert, K.A., Bowatte, G., Tham, R., Lodge, C., Prendergast, L., Heinrich, J., Abramson, M.J., Dharmage, S.C., and Erbas, B. (2017). Residential greenness and allergic respiratory diseases in children and adolescents – A systematic review and meta-analysis. Environmental Research, Volume 159, Pages 212-221, ISSN 0013-9351,

[13] Nguyen, P. Y., Astell-Burt, T., Rahimi-Ardabili, H., & Feng, X. (2021). Green Space Quality and Health: A Systematic Review. *International journal of environmental research and public health*, *18*(21), 11028.

[14] Rao, P., Islary, S., & Natawadkar, K. (2022). Green Space Association with Mental Health and Cognitive Development.

[15] Saenen, N.D., Nawrot, T.S., Hautekiet, P. *et al.* (2023). Residential green space improves cognitive performances in primary schoolchildren independent of traffic-related air pollution exposure. *Environ Health* 22, 33

[16] Shin, J. C., Parab, K. V., An, R., & Grigsby-Toussaint, D. S. (2020). Greenspace exposure and sleep: a systematic review. *Environmental Research*, *182*, 109081.

[17] Torrentira, M. J. (2020). Online data collection as adaptation in conducting quantitative and qualitative research during the COVID-19 pandemic. *European Journal of Education Studies*, *7*(11).

[18] Wang, H., Dai, X., Wu, J. et al. (2019). Influence of urban green open space on residents' physical activity in China. *BMC Public Health* 19, 1093