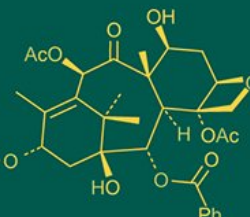
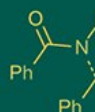
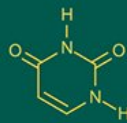
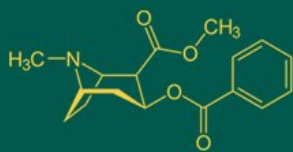


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Nature within us: A sustainable lifestyle approach to connect with nature

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Abstract

Urbanization, industrialization, technological development and changes in human lifestyles have limited access to nature, wildlife and green spaces in and around us. The present paper provides an overview of the benefits of the natural environment in order to connect each individual with it and thus improve the quality of life. Research attempts to examine the importance of natural environment for the individual. The research also clarifies the responsible influence of technology and digital lifestyle. The research targets the community participants (N=100), which includes college students (62%), working professionals (22%) and non-working groups (16%). 82% of the population agreed that nature reduces stress. The study also reported that the time spent outdoors is longer on weekends compared to weekdays. 45% of the sample population spends less than 5 hours/day on digital screens (mobile phones, laptops, television etc.). 6% of the population do not have digital screens of which 4% are from non-working groups especially older people and 2% from low-income professionals.

Keywords: Environment, lifestyle, approach, environment plays, technological development

Introduction

Environment plays a very important role in human lifestyle and vice versa. There are numerous hidden aspects of human lifestyle that affect the natural and built environment. Urbanization (Turner *et al.*, 2004) ^[13], industrialization, and technological development have led to a flourishing of indoor and virtual leisure opportunities (Mahato, 2021) ^[6]. This has led to a disconnect from the natural environment. Changes in human lifestyles have limited access to nature, wildlife and green spaces in and around us. As an integral part of nature, human existence is threatened when the natural environment is damaged and degraded.

Around 55% of the world's population currently lives in cities, which is projected to increase to 68% by the year 2050 (United Nations, 2018) ^[14]. The apartment culture of housing, smaller and dense communities, nuclear families, reduced social life, and increased use of screens i.e. television, and mobile phones further aggravated the situation. Technological advancement such as computer/ mobile phone, easy access to the internet etc. has created a gap among humans, especially youth and students when it comes to observing, analysing, understanding and solving real-life problems.

Despite evidence of the benefits of nature, humans spend less time interacting with the natural environment. Louv (2005) ^[5] coined the term; "Nature deficit disorder" means a decrease in quality of life due to disconnection from the natural world.

The present study provides an overview of the connectivity of nature between different sample populations. The paper also illustrates that the reliance on advanced technology and digital screens for this dis-connectedness.

Methodology

Two methods were considered for the present study, including reviews and questionnaire surveys.

Literature searches on natural environment, environment and human health, connection/disconnection from nature, human lifestyle, and child/ school environment were conducted from online databases such as Science Direct, IOP publishing, MDPI, books and articles. Reviews, empirical and theoretical works on the respective topic were selected from the publications between 2004 and 2021.

The questionnaire survey was conducted from Bilaspur City in the state of Chhattisgarh, India. Three groups of people were selected for the study *viz.* students, working professionals and non-working homemakers. The sample population includes undergraduate and postgraduate college students, while professionals include teachers and office workers. The non-working group mainly include housewives and older people. All respondents were between 20 and 60 years old. The questionnaire was designed to measure the selected sample population's preference for the outdoor environment, and the time they spend outdoors on weekdays and weekends. The study also takes into account the time spent using digital screens (Table 2). The present paper also assesses the emotional, physical and mental status of the sample population when visiting places of natural importance such as villages/ rural areas, parks and gardens, places of natural landscapes such as rivers/ mountains/ forests etc. and indoor places such as in home, office, class etc.

Result and Discussion

For this preliminary study, the results of both methods were successfully compiled within one month. Literature research illustrates approaches to closeness to nature (Table 1).

The questionnaires were answered successfully. One hundred questionnaires were analyzed. Table 2 and Figure 1 show the results of the questionnaire survey. 62% of the respondents were students, 22% were professionals, 16% did not belong to non-working group. 50% of the sample population were male and 50% female.

45% of the population spends less than 5 hours in front of digital screens, while 10% spend more than 10 hours in front of digital screens (Table 2). Most respondents prefer to spend time outdoors on weekends than on weekdays. Non-working groups prefer to stay indoors on weekends but prefer to spend time outdoors during weekdays. 82% of the respondents agreed that spending time in nature reduces stress and 18% of the population were unsure.

Fig. 2 shows the sample population's rating based on emotional, physical and mental status when visiting places of natural importance such as villages/ rural areas, parks and gardens, places in natural landscapes such as rivers/ mountains/ forests, etc. 75% of the population gave a high score (8-10) to visiting outdoor locations such as forests, mountains, rivers, etc. 29% of the respondents gave high marks to places like villages and rural areas, 20% of the population gave high marks to places like parks and

gardens. Only 7% of respondents rated the remaining interior spaces as high, e.g. in the house, in the office, in the classroom etc.

Wyles *et al.* (2019) ^[15] reported that people who visited rural and coastal locations found greater connection with nature than people who visited urban green spaces and protected areas. The author also concluded that there is a close connection between connectedness with nature and its restoration.

A similar study by Hashim and Denan (2015) ^[3] who examined the importance of preserving the natural environment in school design in Malaysia. The study reported that students prefer schools surrounded by natural environments that stimulate student's creativity and are most preferred by students. Numerous scientists, painters, designers, philosophers, poets, architects etc. were inspired by nature, took their ideas and innovations from the natural environment and also inculcated them in their art.

Since 62% of the target group of the present study were students, it can be assumed that the built environment gives little priority to the developmental needs of children (Mustapa *et al.* 2015) ^[7]. There are many proven studies that disconnecting from nature leads to various health problems such as obesity (A Yilmax, 2008) ^[16], vitamin D deficiency, attention deficit disorder (ADD), Attention Deficit Hyperactive Disorder (Taylor & Kuo, 2009) ^[12] and physical problems (Table 1). The benefits of direct connection with nature aid in children's motor development and fitness (Said, 2012) ^[9].

A person exposed to nature improves their emotional, psychological and cognitive behaviour (Wyles *et al.*, 2019) ^[15]. Generalov and Generalova (2020) ^[2] studied the influence of human lifestyle on the creation of a typological structure of the urban living environment. The result reported on various factors attracting apartment culture in urban areas, including changing human lifestyles, comfortable living and working spaces, lower income brackets, sense of safety and security etc.

Nisbet *et al.* (2020) ^[8] concluded that people living near trees reported better perceptions of mental health and a greater sense of connectedness with the natural world around them. Connectedness to nature, trees and wildlife was associated with better psychological well-being and less mental distress. Increasing declines in human-nature interactions can pose significant threats to human and environmental health (Soga & Gaston, 2016) ^[11].

Table 1: Approaches for studying the connectivity with nature

S. No	Approach	Brief description	Country where the study has been carried out	References
1.	Nature and well being	Connection to nature and environmentally responsible behaviour	Finland	Hayrinen & Pynnonen, 2020 ^[4]
		Nature, trees, wildlife & human health	Canada	Nisbet <i>et al.</i> , 2020 ^[8]
		Nature and human health	United Kingdom	Seymour, 2016 ^[10]
2.	Natural Environment and Children	Preserving natural environment in school design	Malaysia	Hashim & Denan, 2015 ^[3]
		Children's development needs and nature	Malaysia	Mustapa <i>et al.</i> , 2015 ^[7]

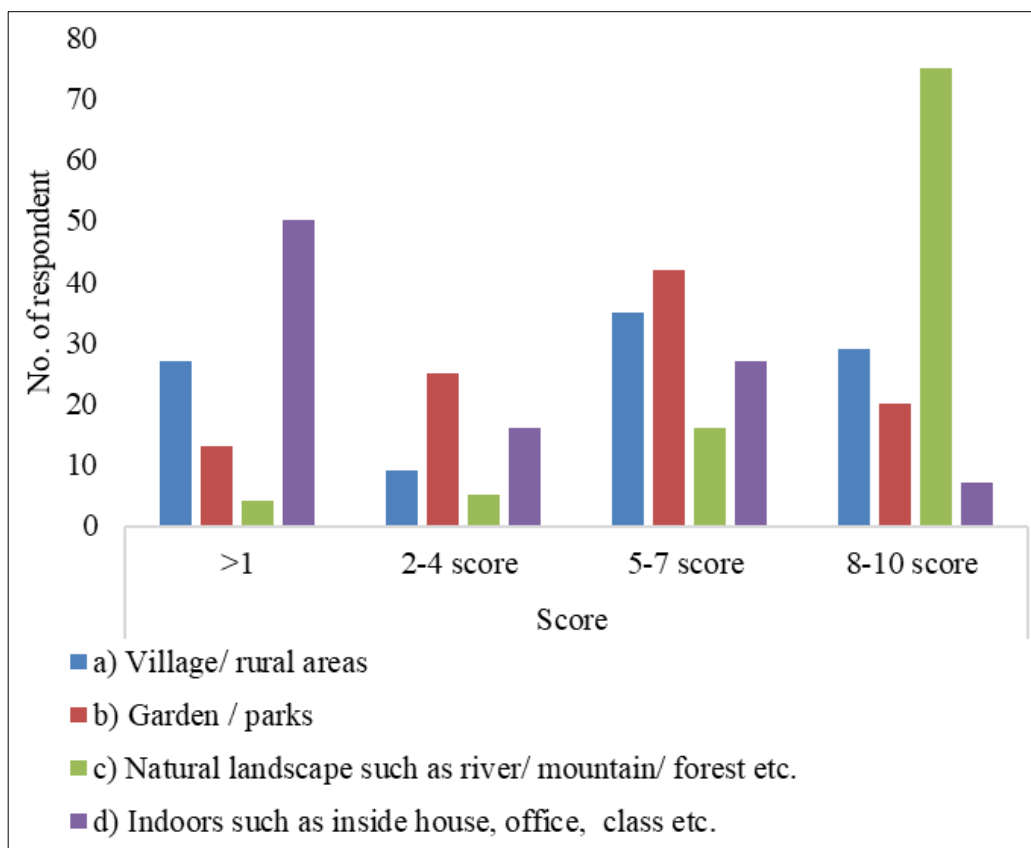


Fig 1: Score given by sample population on visiting different places

Table 2: The result of questionnaire surveys: based on number of respondents

Sample Population	Gender		Time spent on digital screens per day				Time spent outdoors during weekdays per day				Time spent outdoors during weekends				Nature reduces stress			
	M	F	No digital screen	< 5 Hours	5-8 Hours	8-10 Hours	> 10 Hours	< 2 Hours	2-3 Hours	3-4 Hours	> 5 Hours	< 2 Hours	2-4 Hours	4-6 Hours	6-8 Hours	Yes	No	May be
	Student	32	30	0	24	19	10	9	42	11	4	5	32	4	16	10	50	0
Working professionals	12	10	2	12	03	04	01	18	3	1	0	18	4	0	0	18	0	4
Non-working homemakers	6	10	4	9	2	1	0	13	2	1	0	6	6	4	0	14	0	2

Conclusion

Research has shown that nature reduces stress and people prefer to spend time outdoors. Technological development, increasing use of digital screens, and changes in work culture and lifestyle have led to disconnection from nature. So, knowing the natural environment and its benefits will help us to connect with nature. The nature environment and connection with it is a cost-effective way of enrich our psychological and emotional status, as well as improving our health and mental state in children, working and non-working groups. Therefore, we need to extend our boundaries by appreciating and connecting with nature.

Conflict of interest

There are no conflict of interest regarding the publication of this article.

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