

## Impact of urban greenspaces on the health of people subjected to different ailments

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The human population is becoming concentrated in cities worldwide and urban public greenspaces provide the chance to interact with the natural environment having healthy well-being. The lack of the natural environment may have negative effects, this present study focused on getting a perception of the people about the benefits of urban greenspaces. The objective of the study was to investigate the strength of the relationship between greenspaces and common public health. This correlation was examined for sex, age groups, literacy, and economic status in two study sites. The data was collected through a survey of randomly selected respondents in greenspaces. A questionnaire was designed and filled through interviewing the 292 visitors to investigate the role of greenspaces in medicine reduction, overall curative impact in different diseases, and psychological health benefits. The results so obtained were interpreted by SPSS (Statistical Package for Social Sciences) Version 19 with a chi-square test. Greenspace seems to be more than just a luxury because they provide a goldmine for population health promotion. Greenspaces provided a positive association between living habitat and perceived common health of the people. They provided the affordable, easily assessable, and reasonable choice for tackling different ailments viz diabetes, obesity, muscular fatigue, and also added psychological effects in one's daily life.

**Keywords:** Urban greenspaces, public health, horticulture therapy, illness, psychological wellbeing.

### INTRODUCTION

The "exposed, new land which is not yet developed having ordinary flora" is called greenspace (CDC, 2008) for example, parks, forests, playing fields, home gardens, roadside plantations, and river corridors. Parks, essential parts of the urban city, are a famous form of greenspaces. It is assumed that public exposure to greenspace stimulus the vigor and well-being of urban inhabitants by improving their value of life (Khotdee *et al.*, 2012). Public urban greenspaces are seen as a vital part of sustainable city development (Atiqul-Haq, 2011). They give an environment for many plant and animal species and mild temperature of the city through the process of evapotranspiration. Moreover, urban green spaces play their role while reducing heat and deliver numerous environmental assistance (Lee *et al.*, 2015). Yang *et al.*, (2017) reported noteworthy cooling effects by urban green spaces in all seasons with some variations depending upon greenspace type and NDVI (Normalized differential vegetation index). That is why greenspaces are also considered as "Green Infrastructure" of urban life that

enhanced air quality, food security, and resist environmental pollution, and ultimately provide health welfares to the urban inhabitants (Girling and Kellett, 2005).

Due to the dramatic rise in urbanization, citizens are facing a lot of environmental problems including pollution, rise in temperature, and climatic changes globally (McMichael, 2000; Frumkin, 2002; Galea and Vlahov, 2005). The percentage of the urban population has been estimated to rise from 46.6 to 69.6% from 2000 to 2050 (United Nations, 2009). For the stressed lifestyle of urban people, the city greenspaces and parks can perform an important role in decreasing the stress, tension, and lowering of different diseases of mankind (Kaplan, 1991; Relf and Lohr, 2003; Cecily *et al.*, 2005; Chang and Chen, 2005). The interaction of urban residents with nature and plants can alter human attitudes, psychology, and biological responses positively (Relf, 1990). The natural environment could strengthen the brain (Furnass, 1979), and other modern-day health issues like blood pressure, cholesterol level, and stress could be managed by interacting with nature (Parsons *et al.*, 1998).

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These important psychological welfares by greenspaces are stress reduction (Chang and Chen, 2005), helpfulness (Kaplan and Kaplan, 1989), mental relaxation (Tabbush and Brien, 2003; Van den Berg *et al.*, 2007), and coping with attention deficits (Taylor and Kuo, 2009). Long-term psychological benefits could be achieved by interacting with the natural environment (Kaplan, 1995).

Even a very shorter period spent in the greenspaces with normal activity has a significant impact on mental health and human behavior (Barton and Pretty, 2010). Mental stress affects negatively human health (Padgett and Glaser, 2003; Arranz *et al.*, 2007), and the growth of cancer (Webster and Glaser, 2008). Chronic stress could lead to the hazard of cardio-vascular illness and type 2 diabetes (Godbout and Glaser, 2006). A regular walk in a natural atmosphere with vegetation has pointedly improve healing effects (Hartig *et al.*, 2003; Pretty *et al.*, 2005).

Physical activity around greenspaces can diminish the danger of heart attack, lessen ailment by 30-50 percent, reduce diabetes by 50 percent, and improve the overall community health (Hakim *et al.*, 1999). Attention Deficit Disorder (ADD) in children could be easily curable under the natural environment of greenspaces (Taylor *et al.*, 2001). The patients feel healthier life, visited their doctors less, took fewer medicines, felt calm, and experienced less anxiety who were working in greenspaces (Maller *et al.*, 2006).

The present research was started to investigate the potential contribution of parks and greenspaces towards the health benefits and psychological wellbeing of mankind. The objectives of the research were to highlight certain health problems being faced by the visitors and emphasized the

curative impacts of greenspaces such as relief impact due to visits in greenspaces, to what extent the greenspaces helped the people in recovering from diseases, and how much reduction in prime medicinal requirement was reported in specific ailments.

## MATERIALS AND METHODS

The present research work was carried out to know the impact of visiting urban greenspaces in the management of various ailments. The study focused on the curative impacts of greenspaces on people and their opinion on how best to recover from the stress by visiting greenspaces.

**Sampling:** People with ailments were identified for this research. The sampling technique was stratified random sampling. The sampling unit of the people represented the whole population of people with ailments. A survey was conducted to study in detail. There were in total 292 respondents who were approached.

**Site Selection:** Two study sites (Jinnah Garden and D-Ground) were selected for this research due to their best location in Faisalabad, Punjab-Pakistan (Fig. 1). The selected sites attract a lot of daily visitors of different age groups and social classes for parks and greenspaces. Jinnah garden is located on club road near Serena Hotel, Faisalabad covering 54 Acres of land. There are beautiful walkways, jogging tracks, flourishing lawns, and beautiful old trees. It is estimated that almost 1500 people visit the garden on daily basis due to its beautiful landscape and flora. While D-Ground Park is situated near Peoples Colony, Faisalabad. It is the second most famous urban park with all the important

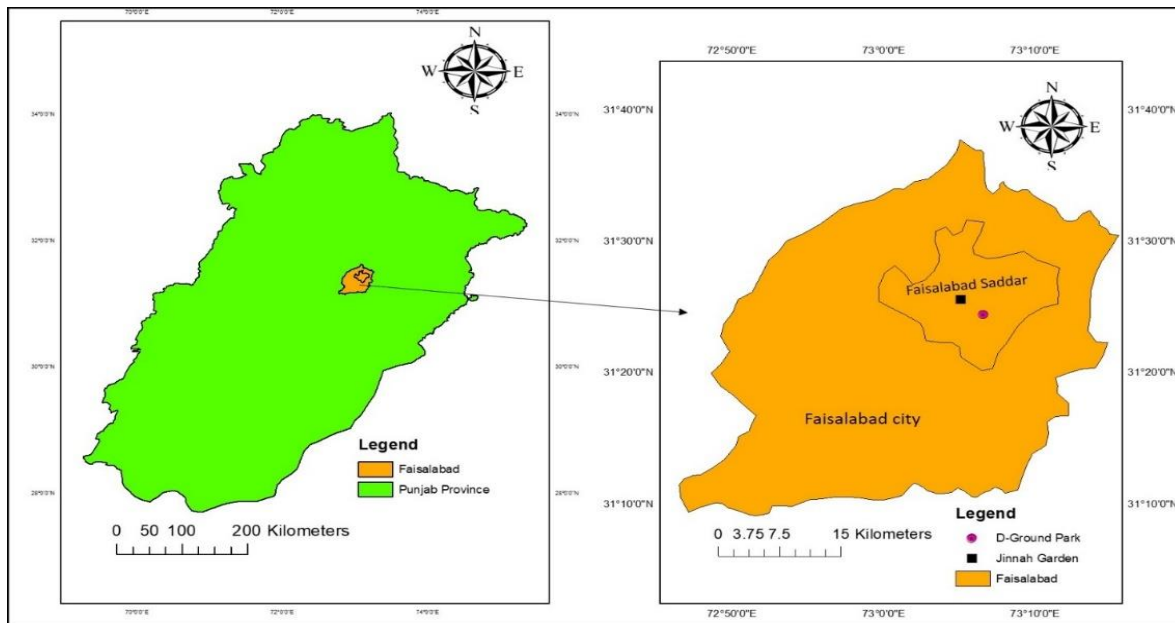


Figure 1. Map showing the selected sites (Jinnah Garden and D-Ground Park) located in Faisalabad, Punjab-Pakistan.

features (jogging track, walkways, lawns, beautiful lights) in the city has almost 1000 visitors daily.

**Sample Size:** A total of 292 respondents were interviewed. Among them, only 200 respondents (100 respondents from each site) subjected to different ailments were selected randomly for this research. The rest of the 92 respondents came to greenspaces for different reasons were enjoying good health.

**Data collection:** The questionnaire was established according to research objectives during 2018 containing the information including personal information about the respondents, the purpose of the visit of respondents, identification of different ailments from which respondents were suffering from, whether respondents had a reduction in their medicinal level or not and contribution of greenspace and parks towards the recovery of the respondents from the ailments.

A preliminary survey was conducted to check the effectiveness and feasibility of the questions in the questionnaire with 20 respondents. Based on preliminary data from this survey, a modified version of the questionnaire was developed with some new questions making it more logical, comprehensible, and easy for the public.

**Data analysis:** The composed data were coded and organized statistically analyzed through SPSS software (IBM version 19). Further, the chi-square test was used due to the occurrence of the non-parametric population and nominal variables. The statistical differences were compared at a 5% level of probability (Steel *et al.*, 1997).

## RESULTS

**Reasons ascribed by the respondents for visiting greenspaces:** There were 92 respondents who used to visit greenspaces without having any ailment. Among them, 57.6% of the respondents from Jinnah Garden and 42.4% from D-Ground, were those who had not been suffering from any ailment and were enjoying good health. They used to visit greenspaces for jogging, recreation, outing, and exercise with their families. Figure 2 contains detailed information regarding the reasons given by the healthy respondents without any ailment to visit the greenspaces. Notably, 40% of the respondents were cautious regarding their health and came to greenspaces for taking precautionary measures against the diseases.

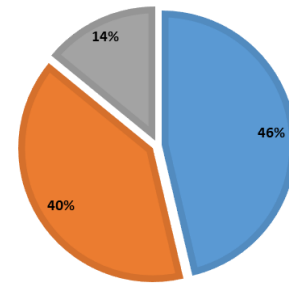
The other 200 respondents were identified as ailed persons who were selected for further study. The respondents with ailments were grouped based on sex, age, literacy level, economical position, and study area. The distribution of the respondents according to demographic characteristics is given in Table 1.

**Table 1. Distribution of respondents according to demographic characteristics N=200**

	Frequency	Percentage
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Gender	Male	156	78.0
	Female	44	22.0
Age (years)	<25	7	3.5
	25-40	90	45.0
	41-50	80	40.0
	>51	23	11.5
Educational levels	Up to intermediate	33	16.5
	Bachelors	94	47.0
	Masters & above	73	36.5
Study sites	D-Ground	100	50.0
	Jinnah Garden	100	50.0
Monthly income (Rs.)	<15000	43	21.5
	15000-35000	87	43.5
	>35000	70	35.0

■ Jogging, Exercise, Walk ■ Precautionary measure ■ Recreational



**Figure 2. Reasons ascribed by the respondents without any ailment (N=92).**

**Health problems reported by the respondents:** A 59.5% of the respondents reported diabetes, 37.5% of the respondent's stated obesity, 34.5% of the respondents informed that of muscular fatigue, 29% of the respondents reported hypertension and blood pressure, whereas 17% of the respondents reported cardiac and only 3.5% of the respondents were with tuberculosis. A 81% of the respondents reported that they were suffering from multiple diseases and 21% of the respondents were suffering from other diseases like headaches, osteoporosis, arthritis, piles, abdominal pain, indigestion problem, and cancer. The distribution of the respondents according to ailments and their demographic characteristics is given in Table 2.

**Reported period of suffering from diseases by the respondents:** A 47% of the respondents were suffering from the disease or diseases for more than five years whereas 45% of the respondents reported 2-5 years of their period of suffering from a disease/s. Only 8% of the respondents were suffering from an ailment or ailments for less than two years (Table 3). The detailed statistical study of age groups of the respondents with their suffering periods showed a high significance level. It also showed that as age increases the suffering period from diseases also increased. The statistical analysis showed that the monthly income gave a P value less than 0.05. Whereas the results were non-significant while

**Table 2. Distribution of respondents according to their ailments**

		Diabetes (%)	Obesity (%)	Muscular fatigue (%)	Hypertension/BP * (%)	Cardiac (%)	TB* (%)	Multiple (%)	Any other (%)
Gender	Male	61.5	36.5	31.4	31.4	19.2	3.8	82.7	21.2
	Female	52.3	40.9	45.5	20.5	9.1	3.5	75.0	20.5
Age	<25	0.5	2.5	1.5	0.0	0.0	0.0	1.0	0.0
	25-40	24.5	20.0	18.0	10.0	5.0	1.0	35.0	9.1
	41-50	26.0	12.0	11.0	13.5	8.5	2.0	34.5	8.5
	>51	8.5	3.0	4.0	5.5	3.5	0.5	10.5	3.0
Educational levels	Up to intermediate	11.5	5.5	5.5	5.0	2.0	1.0	12.5	1.5
	Bachelors	24.0	20.0	17.5	12.5	12.0	1.5	37.5	12.0
	Masters and above	24.0	12.0	11.5	11.5	8.0	1.0	31.0	7.5
Study sites	D-Ground	33.5	16.0	16.5	16.5	8.0	0.0	37.0	6.0
	Jinnah Garden	26.0	21.5	18.0	12.5	9.0	3.5	44.0	15.0
Monthly income	<15000	10.5	8.5	8.0	4.0	2.0	0.5	13.0	3.0
	15000-35000	25.5	18.0	17.0	11.0	8.0	0.5	36.0	7.0
	>35000	23.5	11.0	9.5	14.0	7.0	2.5	32.0	11.0

\*Blood pressure, \*Tuberculosis

statistically studying the study sites concerning the period of suffering from diseases by the respondents.

**Table 3. The reported period of suffering from diseases in relation to demographic characteristics of respondents. N=200**

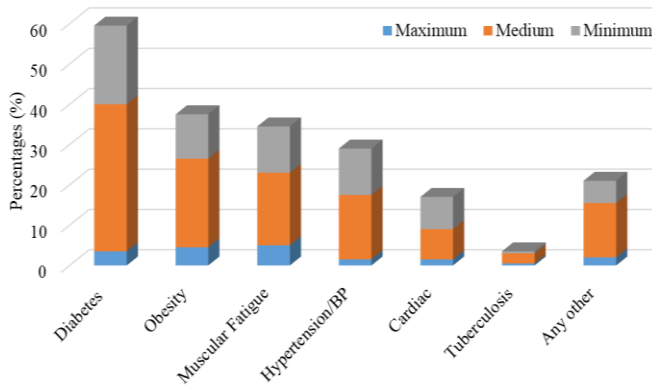
		Reported period of suffering from diseases		
		>5	5	<2
Gender	Male	64.0	41.0	8.3
	Female	34.1	59.1	6.8
Age (years)	<25	0.5	1.0	2.0
	25-40	10.5	29.5	5.0
	41-50	26.0	13.0	1.0
	>51	10.0	1.5	0.0
Educational levels	Up to intermediate	5.0	10.0	1.5
	Bachelors	22.0	21.5	3.5
	Masters and above	20.0	13.5	3.0
Study sites	D-Ground	25.0	20.5	4.5
	Jinnah Garden	22.0	24.5	3.5
Monthly income (Rs.)	<15000	5.5	12.5	3.5
	15000-35000	18.5	21.5	3.5
	>35000	23.0	11.0	1.0

**Role of greenspaces in disease management and psychological wellbeing:** It was found that all of the respondents came to get relief from the diseases. Among them, 80% of the respondents started to visit greenspaces on the recommendation of their physician. Whereas according to the opinion of all the respondents with ailments, enjoying and contacting nature in parks and urban greenspaces impart

therapeutic benefits in their life in terms of recovering from different ailments. This activity also added psychological impacts on the life of visitors.

**Relief in ailments as a result of visiting greenspaces ascribed by the respondents:** The results show that the higher percentage of respondents (58.5%) had mentioned a medium level of relief while 7.5% of respondents reported a maximum level of relief and 34% of respondents reported minimum level of relief. The comparison with gender, age groups, educational level, monthly income, and study site showed statistically non-significant results. But it indicated a 65.2% relief level in old age (above 51 years old) followed mature adults 2 (62.5%) (aged 41-50 years old) and reduced to 52.2% in mature adults 1 (aged 25-40 years). Details regarding the different diseases and the relief level are given in Figure 3. Further statistical analysis showed significant in the case of muscular fatigue whereas the rest of the diseases showed non-significant results.

**Reduction in medicine requirement as a result of a visit to greenspaces:** 65.5% of the respondents reported that visiting the greenspaces had reduced their medicinal requirement to a moderate reduction level whereas 30% of the respondents reported no reduction. A 4.5% of the respondents reported a significant reduction in their medicine reduction. Figure 4 contains the details regarding the respondents, different diseases, and their reduction levels. The results stated noteworthy tendencies with variables age, monthly income, and study areas showing non-significant results in the case of gender and educational level of the respondents.



N=200 P= < 0.05  
Figure 3. Relief levels in different ailments as reported by the respondents

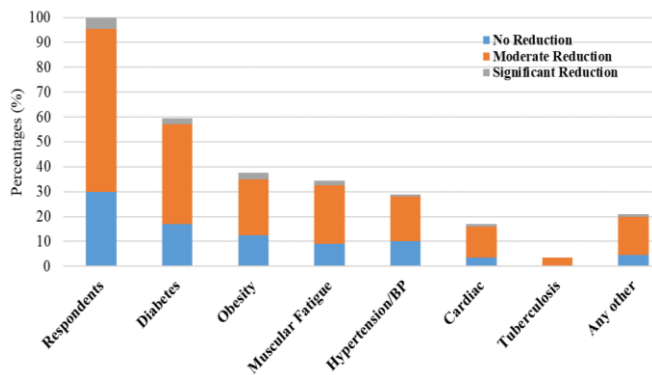


Figure 4. Reduction levels of medicines and their relation with different ailments

**Psychological impacts of visiting greenspaces:** In addition to knowing the impacts of visiting greenspaces on different ailments, the respondents also reported some psychological impacts added to your life after visiting the greenspaces. It was noted that 83.3% of male respondents came to visit greenspaces to get relief from tension while 61.5% came for declining in their stress level. A 55.1% of male respondents responded positively while they were asked about the impact of visiting green spaces on their working efficiency. A 50% and 46.1% of the male respondents described their relief from depression and anxiety, respectively. Whereas, 20.1% of male respondents' decision-making power was increased and 23.7% of the male respondents reported in favor of increasing self-esteem. While talking about female respondents, the higher percentage of respondents (77.2%) reported in favor of their relief from tension. 68.1% and 61.3% stated that the decrease in stress level and relief from depression were observed, respectively in their life after enjoying beautiful natural scenes in greenspaces. While 50% of the female respondents described that their work efficacy was increased and 47.7% reported their relief from anxiety due to these visits to greenspaces. A 36.3% and 31.8% of the female respondents

noted growth in their strength of decision making and a rise in self-worth, correspondingly (Fig. 5). Cross-tabulation between psychological benefits of greenspaces and all respondents' groups was conducted which showed non-significant results. When psychological benefits were cross-tabulated with diseases they also showed non-significant results excluding diabetes. In the case of diabetes, the P-value is more than 0.05.

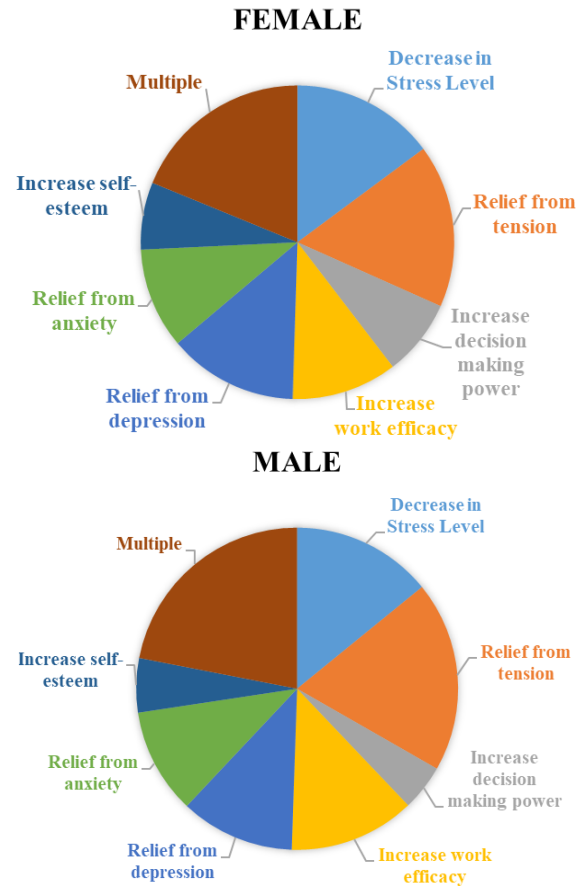
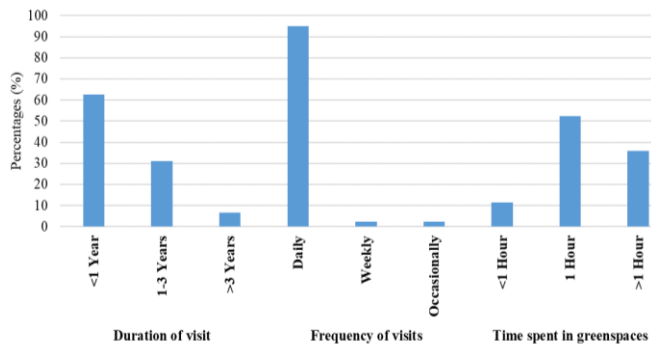


Figure 5. Psychological impacts of visiting greenspaces on the health of the respondents according to their gender.

**Duration, frequency of visits, and time spent in greenspaces as ascribed by the respondents:** Figure 6 contains the detailed information of the respondents who visited the greenspaces. The statistical analysis of the respondents and the duration of visits with groups showed non-significant trends. The majority of the visitors (31.5%) were from the age group of 25-40 years who had been visiting the greenspaces for the last 1-3 years. An in-depth analysis was done to check the respondents' frequency of visits belonging to different groups. When a comparison was made between age, educational level, and monthly income with their frequency of visits, no significant difference was found. Overall, it is shown that the majority of respondents visit greenspaces on



daily basis. This may indicate that the people are well aware of all social, psychological, and health benefits of the greenspaces. Similarly, time spent in greenspaces does not have significant results when cross-tabulated with subgroups.



**Figure 6. Duration of visit, frequency of visits and time spent by the respondents in greenspaces**

**Overall curative impacts of greenspaces perceived by the visitors:** When the respondents were asked to describe the overall curative impacts of greenspaces, 70% of the respondents said that the overall curative impacts of visiting greenspaces were 10-30% and 24.5% of the respondents replied as 30-60%. Whereas, only 5.5% of the respondents described 60.70% of curative impacts on their health (Table 4).

**Table 4. Interaction of demographic characteristics with overall curative impact**

		10-30%	30-60%	60-80%
Gender	Male	65.5	28.2	6.4
	Female	86.4	11.4	2.3
Age	<25	2.0	1.5	0.0
	25-40	33.5	9.0	2.5
	41-50	29.5	9.5	1.0
	>50	5.0	4.5	2.0
Educational level	Up to intermediate	12.5	3.0	1.0
	Bachel-ors	32.5	12.5	2.0
	Masters & above	25.0	9.0	2.5
Study sites	D-Ground	38.5	11.5	0.0
	Jinnah Garden	31.5	13.0	5.5
Monthly income	<15000	18.0	3.0	0.5
	15000-30000	31.5	11.0	1.0
	>30000	20.5	10.5	4.0

When it was further cross-tabulated to find out the correlation between curative help of greenspaces and time of visiting greenspaces it was found that the visitors who had been visiting greenspaces for more than 3 years the overall curative impact was 30-60% in all diseases. Association between curative impact and time spent by the visitors was also checked. Results showed that the visitors that spent much

time in greenspaces reported that the curative impact of greenspaces falls in the percentage of 30-80%. This shows that the time spending in greenspaces has much importance to get curative impacts. The statistical analysis of the frequency of the visit and overall health status gave non-significant results.

**Respondents' opinions about accessibility and need for greenspaces:** The results showed significantly that 75.6% of males had greenspaces in their locality. Whereas 45.5% of females had greenspaces near to their houses and 54.5% of the female came to visit the greenspaces from the distant locality. 24.4% of males also had no parks/greenspaces near to their houses. Another reason for this could be if there are not properly managed greenspaces near the house of the respondents who came from distant places. Regarding the needs of the greenspaces in the vicinity, the result showed that the majority of the male (85.5%) and female (95.5%) visitors were in favor of the availability of the greenspaces is very necessary for the locality. There was a small number of the respondents (male 11.5%, female 4.5%) who responded that the availability is necessary whereas there was no one who said that it is not necessary.

## DISCUSSION

The present study investigated the influence of parks and greenspaces on the health benefits and psychological wellbeing of manhood. Results showed that the respondents who had public parks and greenspaces nearby their houses were less susceptible to diseases that could be the result of the availability of green spaces for social interaction, physical exercise, and close contact with nature (Vanden Berget *et al.*, 2010; Hartig *et al.*, 2011) stating that people with strong natural contact are healthier than other individuals who have a poor connection with nature.

There were 40% of the respondents who did not report any ailments that ascribed their reason for visiting greenspaces to take precautionary measures. They could have the future threats of being caught by any disease and they came to visit the greenspaces to get rid of such a situation in the future through walking, jogging, and exercising in the greenspaces. Sherer (2003) reported that walking or exercising in the public park of greenspaces may act as precautionary measures for several diseases. The greenspaces may also perform a positive role in epidemiologically restorative (Groenewegen *et al.*, 2006) and dropping the blood pressure (Pretty *et al.*, 2005).

Among the respondents who were subjected to ailments reported a majority of them were suffering from diabetes followed by obesity, muscular fatigue, hypertension/ blood pressure, cardiac, tuberculosis. There is a drastic increase in the prevalence of different diseases among people living in urban areas including diabetes which is one of the diseases that prevails highly in our society (Raza *et al.*, 1994).

Survey results presented that among the respondents who reported ailments, the relief level in diabetic patients is maximum followed by obesity and muscular fatigue. In-depth analysis of diseases with the age groups of the respondents, the significant results obtained in case of cardiac, diabetes, muscular fatigue, hypertension, and blood pressure, and obesity. Whereas cardiac, tuberculosis, and other diseases showed non-significant results. According to several studies, exercises, physical activities and simple lifestyles enable people with diabetes to live their enjoyable normal life. Greenspaces promote trends of bodily workout (Kaczynski and Henderson, 2007) and any bodily exercise is directly linked with bodily and mental health including positive impact against cardiovascular diseases mortality, and diabetes (Nocon *et al.*, 2008; Callaghan *et al.*, 2020), lung disease mortality (Garcia-Aymerich *et al.*, 2006) and self-reported poor healthiness (Netz *et al.*, 2005). Physical activity around greenspaces can diminish the danger of heart attack, lessen ailment by 30-50 percent, reduce diabetes by 50 percent, and improve the overall community health (Hakim *et al.*, 1999). When a comparison was made between age, educational level, and monthly income with their frequency of visits, no significant difference was found. Overall, it is shown that the majority of respondents visit greenspaces on daily basis. This may indicate that the people are well aware of all social, psychological, and health benefits of the greenspaces. Greenspaces improve immune response and decline stress (Rodiek, 2002), lesser heart problems (Wichrowski *et al.*, 2005), improve bodily fitness (Armstrong, 2000; Rodiek, 2002). Regular greenspace visits reduced the headache and stress level by 87% and 52% respectively in Zurich (Hansmann *et al.*, 2007). The comparison of relief levels with gender, age groups, educational level, monthly income, and study site showed statistically non-significant results. But it indicates that a higher percentage of relief level 65.2% in old age (above 51 years old) followed by 62.5% in mature adults 2 (aged 41-50 years old) and reduced to 52.2% in mature adults 1 (aged 25-40 years). In the Netherlands, epidemiological studies showed that neighborhoods with widespread greenspaces live a better life as compared to those having no greenspaces around (De Vries *et al.*, 2003). The death rate of elder Japanese living in cities with greenspaces is lower (Takano *et al.*, 2002). Swedish people are hurt lesser by stress because they prefer to live within greenspaces (Grahn and Stigsdotter, 2003).

A high percentage of respondents (70%) reported a reduction in the use of medicine or drugs. Likewise, the patients feel healthier life, visited their physician less, took fewer medicines, felt calm, and experienced less anxiety who were working in greenspaces (Maller *et al.*, 2006). The patients in hospital rooms use lesser drugs who had sight of nearby vegetation rather than construction (Lohr and Pearson, 2000) and recovered after surgery with lesser time (Verderber, 1886). Long-term psychological benefits were achieved by

contact with the natural environment of greenspaces concerning helpfulness (Kaplan and Kaplan, 1989 and Kaplan, 1995) and stress reduction (Chang and Chen, 2005), mental relaxation (Van den Berg *et al.*, 2007 and Callaghan *et al.*, 2020), and coping with attention deficits (Taylor and Kuo, 2009). The public in greenspaces senses less worried and more comfortable, harmless, and even more relaxed (Eckerling, 1996). More than 75% of patients in a psychiatric hospital preferred to participate in gardening activities to get relaxation (Williams, 1989). It is reported that a simple walk around greenspaces could reduce hopelessness, stiffness, and boost self-confidence by 71%, 50%, and up to 90% respectively (Anonymous, 2007).

Statistical analysis of psychological benefits and diseases reported by the respondents the results were significant in the relationship between hypertension/blood pressure and relief from depression, relief in tension and diabetes, work efficacy and diabetes, relief from tension and anxiety with muscular fatigue. Also, mental stress affects negatively human health (Padgett and Glaser, 2003; Arranz *et al.*, 2007; Callaghan *et al.*, 2020), and the growth of cancer (Webster and Glaser, 2008). The results of this research showed that 54% of the respondents reported that their work efficacy had improved through contact with nature.

The availability of plants in offices could improve efficiency, productivity, confidence (Conklin, 1978) up to 10% to 15% when compared with the office lacking plants (Marchant, 1982). Our research work also showed that 25.5% of the respondents found a boost in self-confidence by visiting the urban greenspaces. This could be the opportunities offered by greenspaces including exercise, meet-ups, physical exercises (Tabbush and Brien, 2003; Callaghan *et al.*, 2020). The longevity of elders living in cities with nearby greenspaces is proved in Japan (Takano *et al.*, 2002). Parks and greenspaces offer excellent bodily workout places where both grown-ups and kids can enjoy their time (Sallis *et al.*, 1998).

People prefer greenspaces including natural assets, forests, and urban parks for relieving stress (Bell *et al.*, 2005), and these benefits are attained by body workout (Pretty *et al.*, 2005) any association with plants (Hertig *et al.*, 2003). Our research showed that the people were very much aware of the benefits of contact with nature regarding their health as 54.5% of the total respondents reported that they have a plantation in their houses and 69% of the respondents had greenspaces nearby their houses. When respondents were asked to describe the necessity of greenspaces nearby then 90% of the respondents said that it is very necessary for a community with green spaces. People can get easy access to greenspaces if they are present in the vicinity. It might be expected that the availability of nature correlates positively with human wellbeing. Even exposure to greenspaces could support in dropping the death rate in low salary public of England (Mitchell and Popham, 2008). The urban residents of the UK living around greenspaces had reduced death risks by

cardiovascular and respiratory ailment by 5% and 11% respectively (Richardson and Mitchell, 2010). The greenspaces also stimulate quicker remedial effects in patients of post-surgical intervention (Ulrich, 1984). Riaz *et al.* (2010) explored the curative effects among patients when they associate themselves with plants and improved from ailments of anxiety or hypertension. The long-term facilities of greenspaces and gardening activities have verified the improved lifestyle with lesser diseases (Jarrot, 2002).

**Conclusion:** As revealed through this study, the urban community attains a lot of benefits by interacting with the natural environment including bodily, spiritual, and psychosomatic effects. The natural environment and greenspaces could be exploited as a significant resource for community well-being using parks, vegetation, and other natural green areas that offer an exceptional role for public health. In light of these facts, greenspaces must be part of our life as the greatest dynamic resource of wellbeing. In the situation of the rising stressful mental ailments worldwide, greenspaces may offer a reasonable, inexpensive and reachable option dealing with both preventative and restorative community wellbeing approaches.

**Authors Contributions statement:** Conceptualization: Muhammad Qasim and Adnan Younis Methodology: Amjad Farooq, Shahid J. Butt and Gulzar Akhtar Data analysis: Amjad Farooq, Ahsan Akram and Muhammad Nadeem, Investigations: Javed Iqbal Wattoo and Writing-original draft preparation: Muhammad Faizan Farooq Writing-review and editing: Amjad Farooq

**Conflicts of interest:** The authors declare no conflict of interest.

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