

## **Orientation towards Environmental change and their relation with Mental Health during COVID-19 Pandemic**

**Surbhi\* Nirupuma Yadav\*\* Ashwini Kumar\*\*\***

<sup>1&2</sup>Ramanujan College, University of Delhi

<sup>3</sup>Indira Gandhi National Open University, Delhi

### **Abstract**

COVID-19 has impacted people all across the globe in numerous ways. Apart from being quarantined in homes and facing and dealing with different types of stressors ranging from minimal to severe ones, personal to professional ones. At the same time developing coping ability to combat stress and to let oneself experience a simplistic lifestyle once again which led to an improved environmental condition in a manner which was never paid its due attention before. Focus Group Discussion Method was used for collecting data with college going undergraduates. Results showed that individuals felt a drastic change during Quarantine in Corona times in different areas like pollution levels, noise levels, quality of water, air quality index to name a few. Secondly it was also found through narratives that participants have generated a new sense of belongingness to the environment and are very much concerned about the different environmental aspects. Lastly it has also been reported that as now the environment is not having much distractions they are better able to pay attention, better able to cope through stressors, experiencing a healthy and clean environment, admiring simplistic life, they are now aware and are determined to preserve our environment and not exploit it. Implications of the work is for environmentalists, policy makers in government and mental health professionals to understand the fact that even though people were confined in their homes were facing lot of mental health issues still how they managed to pay their attention and appreciate the positive side of the environment which experiencing its new birth

**Keywords: COVID-19, Environmental Change, Environmental Pollution, Gardening, Awareness, Mental Health, Public Health, Lockdown, Environment Sustainability**

### **Introduction:**

In our day to day life environment plays an important role both at the physical level and at the psychological level. Environment is a complex of many variables, which surrounds man as well as the living organisms. Environment includes water, air, land and the interrelationships which exist among and between water, air, land, human beings and other living creatures such as plants, animals and micro-organisms and suggested that environment consists of an inseparable whole system constituted by physical, chemical, biological, social and cultural elements, which are interlinked individually and collectively in myriad ways ( Kalavathy, 2004). More inside and out information about various elements of psychological wellness issues across differing socio-segment gatherings may reveal insight into the conveyances of these issues and guide us in better creating wellbeing advancing urban structures. Information on arbitrators from the socio-biological

condition, on the spatial heterogeneity of neighbourhood assets, and their relationship with psychological well-being inside and across neighbourhoods will assist with clarifying the instruments connecting urban situations to emotional well-being and mental health (Gruebne et.al, 2017) .

Environmental designers have worked with potential nursery clients in a participatory structure process; to clarify their nursery plans with assumed medical advantages; to spread this data to clinical and support staff; to work with their customers to direct post-inhabitancy assessments, and to disperse this data to their companions. Plainly, more exploration is required, yet we can't hold up until such investigations are finished. The proof we do have warrants proceeding with endeavours to build up mending gardens in social insurance offices so clients may profit and analysts have more prospects of surveying their advantages (Marcus, 2000). Now in order to address the issues of environment the role of environment psychologists comes into the scene and thus environmental psychology as a result of its very centre, has been and stays over each of the a others sciences of room to the degree that it dissects people's and networks' observations, perspectives, and practices in unequivocal connection to the physical and social settings inside which individuals live and their networks exist. Thoughts of room and place possess a focal position. The control works, at that point, at a few degrees of spatial reference, making it conceivable to describe human condition connections at every one of these distinctive ecological level (Moser).

### **1.1 Importance of Environmental Psychology**

Environmental Psychology manages conduct according to the physical condition. The physical condition incorporates material articles, plants, creatures and people. It doesn't underline the interactional procedures among individuals, which structure the topic of different parts of Psychology. Ecological Psychology follows the frameworks approach which has become the advanced methodology in a few parts of science. It is all encompassing and naturalistic and examines the adjustment of living beings to their settings. Living beings are concentrated as a feature of the biological system, focusing on the parity and reliance of life forms and 'the earth. This field of science came to fruition during the 1960s and 'Environmental Psychology and Population' has been incorporated as a division of the American Psychological Association.

The significance of the field has expanded lately inferable from the expanded worry with the earth coming about because of the contamination issues, issues presented by populace blast, consumption of characteristic assets and the felt need to save wild (Mathew, 2001). Various behavioural sciences make a few sides of inventiveness and capacity to understand an issue self-evident. Presently properties of innovative dreams and forms are straightforward. There are simple to comprehend strategy to distribute the idea of configuration stage and strategies for arrangement. Absence of enough exploration is against improvement of text what's more, verification of natural plan. Few investigates about human conduct arrangement are identified with ecological plan and environmental psychology (Charehjoo, Etesam, & Rasoulpour, 2018). Present day interior design plan is an associated with designing, workmanship, nature, ecological brain science also, different controls of information marginal subject, the pith is to make protected, agreeable, wonderful, and rich stylish sentiment of the indoor condition. What's more, natural brain science is supporting the expert fundamental hypothetical establishment. Since the essential issue of current inside structure is to tackle and the issue of the connection between the indoor condition (physical and mental), don't know individuals in various mental and social qualities and law of condition, won't have the option to science and craftsmanship to manage the connection between the components in the plan of indoor condition, likewise won't have the option to make adjust to the need of the indoor condition. Natural brain

science from the Angle of the brain research to investigate what sort of condition is to coordinate individuals' desire of a science. Its application in the inside plan is for the most part reflected in two perspectives; One is the investigation of living condition (just for human creation and life of the indoor condition, to the individual's brain research impact; it is to examine the mental needs of the requests of our clients, and as indicated by the mental needs of individuals, change, improve, and improve the nature of living condition.) Around the two subjects in this paper, through examination the norm of natural brain research in the cutting edge inside plan, individuals on indoor ecological components of insight and observation, conduct of inside space structure, mental sentiments of the singular contrasts of the impact of the effect on the inside structure style, etc. four angles to represent the particular impact to the cutting edge inside structure condition brain research (Zhang, 2016).

### **1.2 Role of Environment on the Psychological Health**

There are various ecological supporters of emotional wellness issues. These natural elements ought to be generally perceived and comprehended. Endeavours to increment emotional wellness cognizance, particularly in essential consideration habitats, the working environment, and instructive settings, must be actualized. Early acknowledgment of hazard factors for psychological maladjustment and indications of emotional well-being issues, precaution mediations, and better access to sufficient emotional wellness administrations are critical to better overseeing psychological maladjustment. The distinguishing proof, avoidance, and treatment of psychological instability are practical, yet significantly, morally basic. The general prosperity of an individual e.g., physical wellbeing, psychological wellness, and life-fulfilment ought to be thought of fundamental. This thought can thusly prompt a more advantageous, more joyful, and increasingly proficient society ( Heekin & Polivka ). In a roundabout way, the physical condition may impact psychological well-being by adjusting psychosocial forms with known emotional wellness sequel. Individual control, socially strong connections, and rebuilding from pressure and weakness are totally influenced by properties of the assembled condition. Progressively forthcoming, longitudinal examinations and, where attainable, randomized tests are expected to look at the possible job of the physical condition in psychological well-being. Considerably all the more testing is the undertaking of creating basic models of how the constructed condition can influence emotional wellness. It is moreover likely that a few people might be progressively helpless against emotional wellness effects of the manufactured condition. Since introduction to poor ecological conditions isn't arbitrarily appropriated and will in general concentrate among poor people and ethnic minorities, we additionally need to concentrate on the wellbeing ramifications of numerous ecological hazard introduction (Evans, 2003). Research have gathered that from creative treatment programs and ethno cultural contemplates shows obviously that solid situations that give important work and an assortment of nonmedical mediations offer more enduring wellbeing results than clinical treatment alone. The strong and remedial impact of the earth has been extraordinarily dismissed, to a limited extent in view of clinical predominance in the treatment of enthusiastic issues. Progressively viable are the evacuation of the social, financial, and proficient obstructions to psychological well-being and the reinforcing of rehabilitative endeavours that advance action and reason (Nikelly, 2001).

### **1.3 Role of Environment on improving Health and Diseases:**

In a study outcomes seem to help the thought that multisensory room's in a significant assistant to the consideration of more established individuals with dementia. Meetings are, in the fundamental, an agreeable

occasion, with attractive results created. There are, be that as it may, special cases to the standard, and touchy, arranged application is ideal. The utilization of the multisensory room could be focused at those people who may show specific benefit on the premise of these outcomes, this would incorporate those with low disposition as well as uneasiness just as those for whom a time of unwinding is viewed as beneficial. As an outcome, such treatment could be in excess of a one-off occasion: it could be conveyed proactively inside an arrangement of care, ideally by a similar individual or inside a group of carers who approach data on a person patient's reaction. A further objective would then be to survey the more extended term impudence of multisensory rooms on singular patients (Hope, 1998). Ecological corruption represents a noteworthy danger to human wellbeing around the world. Unsafe outcomes of this debasement to human wellbeing are as of now being felt and could deteriorate throughout the following 50 years. Be that as it may, wellbeing impacts are non-advertised and in this way difficult to measure in fiscal terms. The resulting danger of being disregarded in strategy making is a significant concern around the world. To address this test various valuation contemplations have been directed in both creating and created nations applying various techniques to catch medical advantages from improved natural quality. Valuation results are essential for the detailing of financial instruments to disguise the externalities made by the open idea of natural assets. The use of financial instruments, the presentation of charge frameworks and additionally the production of outflow markets can possibly advance economical results whenever set at a social ideal level. Elicitations of the inclinations and valuations of various social gatherings through valuations are subsequently basic. This paper audits the principle writing in the field. In spite of the fact that not thorough, applied examination referred to in this audit gives considerable proof of solid connection between presentation to ecological perils and wellbeing dangers and uncovers that there are critical qualities related with life span and wellbeing quality in both created and creating world advocating the requirement for strategy mediations. Improving air quality and making sure about sufficient supplies of safe drinking water is related with huge advantages for human wellbeing and prosperity. Critical advantages are likewise seen as related with washing water quality socially legitimizing the expenses for decrease approaches. Environmental change impacts relief is likewise critical as far as general medical advantages. In any case, certain confinements of the current writing have been distinguished (Remoundou & Koundouri, 2009).

#### **1.4 Environment before and after Covid-19**

Megacities of India are frequently recorded inside the world's highest dirtied urban communities that surpass the surrounding air quality norm and subsequently an exhaustive record of air quality improvement in the megacity Delhi has worldwide importance of its own. Lockdown measures in various pieces of the world, luckily, have carried the chance to excuse human effect on the earth. It might likewise assist with thinking about whether lockdown would be an eccentric measure for re-establishing the earth and giving a quality biological system to the urban individuals because in the urban regions with the point of satisfying the objective financial development frequently the wellsprings of biological system administrations are disregarded because of which individuals experience wellbeing dangers. The repulsive infection in one hand compromising our lives and then again the instrument of the natural reclamation process is likewise going on. Subsequently, worldwide worry for air contamination needs to prompt draw noteworthy consideration for investigating air contamination over the span of the pandemic (Mahato, Pal, & Ghosh, 2020). COVID-19 is a worldwide pandemic and genuine danger to human wellbeing which end the financial exercises, anyway it is likewise considered as a "Surprisingly beneficial turn of events" or "Blessing in Disguise" where contamination is diminishing and nature is recovering itself. This positive effect on condition perhaps

transitory yet governments and people ought to gain from this lockdown on the most proficient method to diminish contamination on long haul premise (Muhammad, Xingle, & Salman, 2020). The Air quality record (AQI) in all the conditions of India is currently in two figures (demonstrating decently great nature of air) after this lockdown. Air as well as the waterways of India like Ganga, Yamuna, and Cauvery and so on has gotten spotless and clear and marine life is noticeable. In the wake of exploring different reports as referred to prior, it very well may be summed up that without a doubt COVID-19 has brought a frightful crushing scourge for person however it has risen as a gift for regular habitat giving it a "recuperation time". We have additionally discovered that the ecological debasement brought about by people isn't absolutely irreversible. In a time of only 1–2 months, "recuperation of nature" is being seen by everybody and it's a sign for us to comprehend and respond. Government and Policy producers should make fundamental strides with the goal that this recuperating procedure doesn't turn into a transitory thing (Lokhandwala & Gautam, 2020). It is suggested that all the countries understand the coronavirus, better usage of the ecological, transport and industry guidelines ought to be viewed as a need to facilitate the adverse effects of human action on the earth. The global network, as it battles to recover an acknowledged typical, should think about, the illuminating aftereffects of this pandemic. Nature, for one, ricocheted back quicker than we suspected it could. Also, it would be out and out unreliable to let that information assume a lower priority once social removing and across the nation lockdowns are not, at this point required (Saigal, 2020). Ecological specialists are attempting to comprehend if a significant drop in toxins and improvement of air quality is a snappy, brief reaction to the lockdown measures. While researchers are attempting to see how environmental change and the coronavirus are connected, they have additionally cautioned this might be a "momentary positive". The natural strategy specialists and researchers accept that as coronavirus ebbs, it will bring about more significant levels of air contamination than before the episode. For now, during these terrible occasions, how about we take a gander at this natural effect of COVID-19, as a hint of something to look forward to. We should likewise accept this as an open door to move towards increasingly maintainable and versatile economies with green employments and interests in clean vitality (Ghansiyal, 2020). Around the world, the flare-up brought about by Covid-19 makes individuals have constrained social opportunity. It causes genuine ecological waste because of clinical versatility in the natural sense. Then again, it additionally prompts a lessening in family unit squander since individuals who are detached at home fear squander because of their sociological concerns. Then again, decreases in ozone depleting substance discharges were seen because of fundamentally diminished street transport, diminished mechanical, instructive, and different exercises, yet it was shown this was insufficient to check air contamination for all toxins. The episode caused intense issues in the sustainable power source part, for example, delays in the flexibly chain, challenges in charge securities exchanges, and the danger of not having the option to profit by government impetuses finishing this year. Speculators act precarious because of the vulnerability in the area. Along these lines, nations need to exhibit intense clean vitality impetuses. In this investigation, the connection between the Covid-19 flare-up, the earth, and the sustainable power source part from a worldwide perspective was examined and a definite writing survey was led that could be valuable for arranging further explores regarding the matter (Eroğlu, 2020).

### **1.5 Impact of Green Environment in our day to day lives**

As the remedial advantage of common contrasted with urban conditions is controlled by looking at the quality of emotional reclamation, vulnerability about the speed of stress-recuperation may show up of

less significance. Be that as it may, in perspective on the error between self-report and physiological proportions of pressure recuperation, physiological proportions of full of feeling reclamation, for example salivary cortisol and not self-report measures have all the earmarks of being a superior decision for future exploration as they unambiguously uncover the tedious idea of the therapeutic process (Karmanov & Hamelb, 2008). The discoveries recommend that both use of these green spaces and visual access to them from inside sup-port worker prosperity. The examination likewise proposes that the overall duration of time spent in these spaces may hold more significance for prosperity than basically the recurrence with which they are used. Future intercessions planning to advance outside breaks or walks amongst the workforce should, in this way, centre around urging people to invest important measures of energy outside, as less yet longer open air breaks might be more advantageous than brief day by day ones. The discoveries introduced here additionally recommend that sees from employees' workstations may have a more articulated effect on prosperity than vivid experience of working environment green space. Maximizing perspectives to delicate finishing and the more extensive green set-chime through compositional structure could in this way help to promote opportunities for rebuilding and may profit both individuals and associations by supporting the prosperity and profitability of employees (Gilchrist, Brownb & Montarzinob, 2015). Controlling for contrasts coming from level of instruction, urbanity, sexual orientation, age, business, second home proprietorship and bicycling to work, the aftereffects of the examination recommend that there is topography of overweight and experienced worry according to separation to freely open green zones just as access to a private garden or a common green region at the abode. Enquiries were made regarding what a degree the impact of separation to green zones could be deciphered as the result of the utilization of green zones. The recurrence of visits to green zones was influenced by a huge separation rot as the separation between the abode and green zones increment. Be that as it may, the outcomes demonstrate that the utilization of green territories can't clarify the impacts of green territories on the wellbeing pointers. It is proposed that the advantages of greenery are just halfway gotten from "formal visits" in such territories. The general character of the area could be influenced by green foundation and along these lines be more or less helpful for open air exercises and "sound" methods of movement in consistently life, for example, strolling and bicycling (Nielsen & Hansen, 2007). Although successfully addressing poverty will in all probability require a variety of intercessions, of which ecological mediations may be little part, certainly greening is a low cost mediation in correlation with most social help programs. Also, the writing on the numerous positive symptoms of network planting in poor urban neighbourhoods recommends that inhabitant based greening endeavours could assume a shockingly significant job in the arms stockpile of weapons against destitution. This investigation recommends that, in poor downtown neighbourhoods, planting a couple trees may help provide individuals and families the psychological resources expected to "take arms against an ocean of difficulties (Kuo, 2001). On the off chance that this ends up being the situation, a green living condition may turn into a need as opposed to the extravagance resource it is frequently thought to be accordingly such examinations may have solid ramifications for spatial arranging. For instance, the continuous procedure of the densification of urban areas, so as to spare the wide open from endless suburbia, may end up having startling negative wellbeing results. Given the very irreversible nature of such densification forms, we trust the current investigation will bring issues to light of this issue. Besides, the examination likewise calls attention to that the wellbeing impacts of nature regions are probably going to rely upon their good ways from neighbourhoods. Though from a biological viewpoint, nature advancement might be best situated far away from urban communities, to decrease human unsettling influence; such new

nature territories are probably going to contribute generally little to general wellbeing. Nature for the good of nature, just as an untainted wide open seem widely accepted objectives in Dutch society. In any case, when space is scant, for what it's worth in the Netherlands, the pursuit of these objectives suggests that less space will be accessible for other capacities, for example, nature with a prevalently social capacity. In the event that and when it very well may be indicated that medical problems are engaged with this compromise, the equalization may move impressively (Vries, Verheij , Groenewegen, & Spreeuwenberg , 2003).

## **METHOD**

### **Design**

This is an exploratory qualitative study to understand how Environment impacts the Mental Health of college going students. All participants are residents of Delhi. Participants from this study have been specifically chosen from Delhi because this was amongst the most polluted cities in 2019 and the Air Quality Index was severely high because of which residents were facing lots of issues both physically and mentally.

### **Sample**

As the Focus Group Discussion method was chosen for collecting data, it was held in July 2020, 16 participants were chosen through purposive sampling, it is a non-probability technique which involves conscious selection by the researcher. Invitation mails were sent to participants in which a brief introduction about the research was given out of which 12 participants sent their agreement. As it is not possible to hold a face to face group discussion because of the pandemic. Virtual meeting has been scheduled after receiving consent forms from all the participants. All participants were in the age group of 18-23 years.

### **Procedure**

College going students who were fulfilling the eligibility criterion were sent mail and after receiving confirmation through consent forms. A virtual meeting was scheduled keeping in mind the pandemic situation. While starting with the discussion a brief intro was given about the facilitator and the objectives of the research which they are about to be part of. After that participants were made aware of their rights. Instructions were clearly read aloud and participants were asked to clarify if they have any doubts. Participants actively participated in the discussion. It was ensured that everyone is getting a chance to share their opinion and experiences, if anyone is not able to take part, the facilitator specifically requested them to share their viewpoint as well. Lastly, once the focus group discussion was over the participants were ensured confidentiality of the data and were thanked for their valuable time.

## ANALYSIS

It was really interesting to see that participants were very much eager to be part of the Focus Group Discussion on the topic related to Environment and its effect on Mental Health and to share their experiences in the current situation of COVID-19. All participants approached have been residing in Delhi presently and most of them have been born and brought up in Delhi and are very much acquainted with the environmental issues and concerns both in Pre Covid-19 and Post Covid-19 Times.

Data was collected using Focus Group Discussion Method and then thematic analysis was done. Following are the emerged themes and subthemes from the data

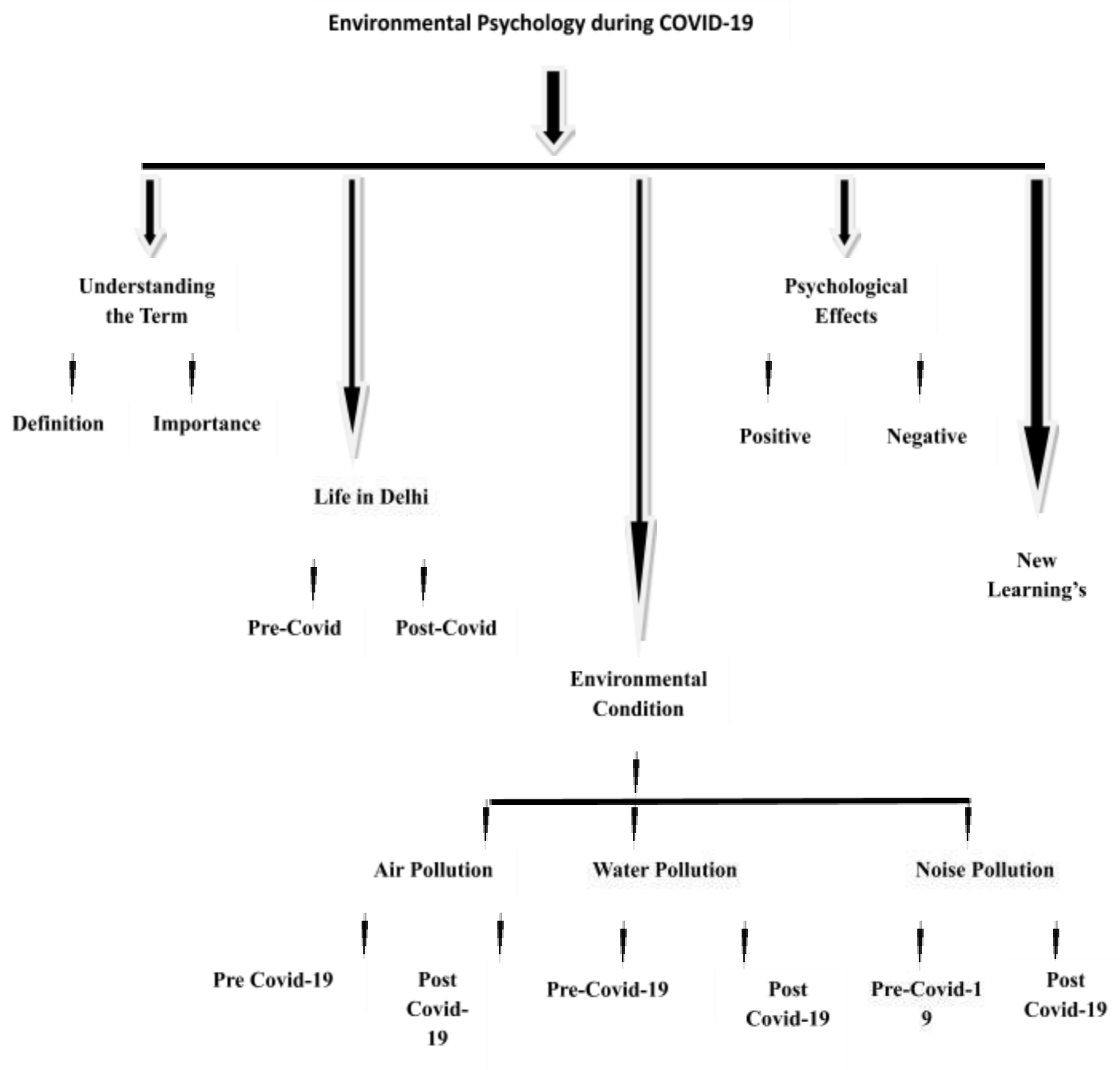
**Theme 1:** “Understanding the term Environment” which included sub themes like Definition and Importance

**Theme 2:** “Life in Delhi” which was further subdivided into Pre Covid-19 and Post Covid-19

**Theme 3:** “Environmental Condition” which was further subdivided into Air Pollution, Noise Pollution and Water Pollution

**Theme 4:** “Psychological Effects” which was further subdivided into Positive and Negative  
**Theme 5:** “New Learning’s”





Graphical Presentation of the themes

## RESULTS

Results have been analysed using thematic analysis and various themes emerged: Understanding the term Environment, Life in Delhi, Environmental Condition, and Psychological Effects and last is New Learning's. Following themes got divided into various sub themes which are discussed below

First theme emerged was **“Understanding the Term”**

It was found during the discussion that there were varied responses when it comes to understanding of the term “Environment” and it is not only specific to natural environment, responses received have also mentioned about social environment, physical environment nature-nurture, immediate surroundings etc. and also during the discussion it emerged that many participants were trying to make sense of the term by citing its importance and hence explaining this term and that's why two major sub themes emerged which are”

### Definition

It was found in many narratives that the term “Environment” has a holistic meaning for the participants and similar responses have been received repeatedly in which it is considered as a term which has many components. According to the participants it involves, natural environment which everyone is surrounded with, social environment which comprises people primarily family and friends and society too, some participants responded by saying environment is combination of nature and nurture etc. Statements in support of this theme are:

“I perceive it as a merger of both nature and nurture”

“Environment comprises of both built in environment and the natural environment, social environment which surrounds us so it comprises everything”

“Environment is collection of all the factors that add to my learning experience and effects my overall holistic development”

“Environment is anything that comprises within your surroundings, the family, the society”

### ● Importance

While portraying their understanding of the term many participants also started sharing how it is important for them and how much being in a particular kind of environment be it home, college or any other surrounding affected them and also some participants shared their experiences how changes in environment - while shifting to a new home or new city has affected them as a person. Statements in support of this sub theme are:

“All my life I have lived in Delhi but for the past 6 months I moved to a new city where Ganges is there, does not have metro or lot of vehicles around and because of that somewhere in me changes have been inculcated, I have become a lot more active since I have gone there, that place has made me feel alive, sitting around Ganges and enjoying natural views is a whole different thing”

“I travel from one part of the city to another and surroundings there have affected me so much mentally and I agree that environment change does effect and its important”

“ Earlier I was living in East Delhi which is very crowded so I used to interact with people a lot but since I shifted to Noida, people here live a very personal and individualized life where they do not interact much with people and it has affected me a lot and there is a significant change in my personality now I have started interacting less with people”

“I live in a government colony and when I visit my friends place I see them greeting people outside and I wonder how do they do that and they tell me some level of social interaction is to be done, but where I am living people barely step out of their house they have their own lives”

“During lockdown I have not interacted with people for so long now that when I go for some basic grocery shopping I limit myself to words, earlier I used to strike a full conversation but now I am awkward to talk to anybody or even start a conversation with anyone”

### **Life in Delhi**

This is the second major theme which emerged from the discussion. Delhi is one of the fastest growing metropolitan cities and is one of the most preferred cities whether it comes to work or lifestyle or any other thing in life but since a few years the environmental condition of Delhi has deteriorated and in the last year the Air Quality Index (AQI) of Delhi was increasing at soaring levels. This theme has two important sub themes which gives understanding of Delhi's life in Pre Covid-19 Times and Post Covid-19 Times:

#### **• Pre-Covid-19**

It was found in narratives that participants faced a lot of distress due to unhealthy environmental conditions in Delhi and very diverse experiences have been shared. Statements supporting this sub theme are:

“I am fond of constellation if I have to spot it, it was so difficult I can only spot three out of seven”

“Pre covid-19 Delhi was not at all a healthy place to live”

“Environment was really bad, pollution level was so high, heat levels were so high, there was so much crowd, I used to travel 1.5 hours to my college- my irritation level used to be so much, I used to be exhausted and was not able to complete my deadlines because these things increase your stress levels”

“Environment was really bad because of which people were facing lots of stress, disease rate was very high”

“Before Covid-19 we never enjoyed the weathers, I remember that earlier because of rains we used to get so much irritated that metro will be delayed we won't get autos”

#### ● Post-Covid-19

As narratives are shared a common consensus emerged that there is a drastic improvement in environmental conditions in Delhi, air is clean, roads are not crowded, birds can be spotted and the sky is looking much cleaner nowadays. Statement to support this sub theme is:

“Temperature effects a lot, last summer it was so hot people were so irritated but due to lockdown environment has changed a lot it's not that hot now so people are less irritated now, monsoon is on time too, it has impacted me I am not facing any mood changes”

“I am absolutely loving Delhi’s weather, sky is so clear it looks like a hill station, in my 20 years of life I have never seen this before and even though everything is going bad but this one aspect I am really liking”

“Air is so clean, sparrows can be spotted now, only in my childhood I used to see sparrow, it's really good”

“Since layer of pollution is not there stars can be seen in Delhi’s sky”

“For the first time in my life I saw rainbow, the sky is so beautiful now a days because of decreased level of pollution”

“I never used to go up on my roof and during covid-19 I used to go up and it was same as it used to be in childhood when everyone used to come during evenings hours and socialize- this was back”

“Covid-19 has changed Delhi in a positive way, I have never seen Delhi like this since my childhood , in my balcony now there are lot of birds and i can hear constant chirping of birds ,it's so beautiful”

“Sky is very beautiful every second day, during lockdown I have developed this habit of nature watching”

“During this time it has changed our understanding towards environment that how we deal with this and overall our behaviour towards environment has been shaped in a positive way”

“I never visited my terrace before that much and I used to wonder whether the sky was that pretty before or we never took out the time to witness it”

### **Environmental Condition**

This is another important emerging theme. Environment comprises of many components and it has been seen since few years that environment has become polluted. In the discussion according to the participants three major areas where it was felt that visible pollution is affecting human lives are Air Pollution, Noise Pollution and Water Pollution and hence they are the major emerging subthemes under this. Elaboration is as follows:

#### **● Air Pollution**

Post Diwali last year the air pollution has dropped down to hazardous levels and its residents faced a lot of issues like tears in eyes, breathing issues, skin issues to name a few. Participants have shared experiences in a length and hence this sub theme emerged with two nodes of pre and post covid-19 situation. Here are the two emerged headings under this sub theme:

#### **● Pre Covid-19**

As the narratives suggested the Pre Covid-19 situation in Delhi was very uncomfortable for the residents and some of the statements supporting this sub theme are:

“There was one point when condition was really bad that if you are standing somewhere you can’t see what is there at some distance, most of us were wearing masks at that time, used to feel tired, agitated, irritated”

“After Diwali pollution levels used to be very high, tears used to be in eyes and headaches”

“I got specs because of pollution levels earlier”

“Earlier my grandparents never used to step out of the house because of the soaring pollution and used to cough and sneeze”

“I used to go to college from scotty and every other day I used to have tears in my eyes because air quality was so terrible”

#### **● Post Covid-19**

Post Covid-19 environmental situation is much better in Delhi as it emerged in the discussion that people are experiencing living in a better environment now. Statements supporting this sub theme are:

“Now I can actually stand in my balcony and breathe, it’s a new moment of calmness that we experience, we can breathe clean air now”

“Now reports are there that because of lockdown due to lockdown pollution levels have gone down, it’s a positive thing and people also realized that how much environment has improved”

“Nature has detoxed now, Air quality index has gone down and it's strange but now I don't need to use specs, I have better vision now”

“Everyone has seen how environment has self-purified itself during this time”

“My grandfather is so happy now, because he can go out for walk and sit in the balcony”

### ● Noise Pollution

Noise pollution is linked to hypertension, anxiety disorders, heart diseases and Delhi has experienced this at really high rates in the last year. Participants very engagingly talked about noise pollution and shared experiences during pre and post covid-19 times and that's how these two sub-themes emerged:

### ● Pre Covid-19

One can easily find sources on net or newspaper articles which states that Delhi had the highest noise levels in the year 2019 and participants shared their experiences. Statements supporting these sub themes are:

“ It’s so annoying getting up in the morning with noises”

“I guess living in Delhi all my life I can say that we are so adaptable to noises now that it doesn't affect us anymore- it's so natural for us”

“Metro station is just across the road from my place and its newly built, it used to bother us so much when metro used to pass because it makes a huge sound”

“I have some people living around my house who have this habit of playing DJ all the time that it was a usual thing for us”

### ● Post Covid-19

Narratives shared explain how participants are feeling drastic changes and are able to relate it to their psychological health and calmness in mind. Statements supporting this sub theme are:

## Orientation towards Environmental change and their relation with Mental Health during COVID-19 Pandemic

“Once the lockdown started the whole noise just vanished, I have never felt this peaceful to be honest. Now I can sit in the balcony it's so calm”

“It was absurd that no one is on the road, it was weird to see everything so still in Environment”

“Noise from traffic and honking has come down to great levels”

“When lockdown started it was weird not to see people on roads but then in unlock phases everything became fine”

“My grandmother told me that no one is there and it so still that it doesn't feel good as she is not used to it”

“Now since the lockdown no noise is there it feels so weird, no auto wala voice, no bikes noise, noise levels have dropped a lot, it feels so good here now”

### • Water pollution

As narratives have been shared participants are not very much aware but they do agree that Yamuna River is polluted and post covid-19 situation has become better.

### • Pre Covid-19

Most of the participants agreed on the thought that they are not very much aware about it but the condition of river Yamuna has deteriorated over the years. Statements supporting this sub theme are:

“Yamuna was highly polluted and they used to put walls after festival so that people won't throw puja stuff here and my mom used to ask me to throw waste in their”

### • Post Covid-19

Most of the participants narrated that although they were not aware except for pollution in Yamuna but yes changes are visible in Yamuna and also in other cities like Varanasi and Mumbai. Statements supporting this theme are:

“Water quality has increased because industries are closed also people are not travelling I can't wait to go back to Varanasi and see clean Ganges”

“After lockdown the pollution decreased a lot, earlier there used to be a foul smell but now there is no smell at all we can see clean water now”

“Ganges is so clean now that you can drink water”

## Psychological Effects

Another important theme pointed out talks about Mental health and how participants have narrated incidents from their lives and impact can be seen both positively and negatively and hence it lead to emergence of two major sub theme which are:

### ● Positive Effects

It was found in narratives that there is a consensus in participants that lockdown during pandemic has come like a break from fast paced life as now they are getting time to spend with family, introspect, some of them agreed that earlier much noise was there and as now less people are coming out of their life so now it's a much calm life. Statements supporting this sub theme are:

“My house is park facing and sun light comes in, it feels so good now a days to be near to nature”

“When you are near to nature it elevates mood”

“It's a beautiful feeling that there is no chaos, no traffic on road”

“I have developed habit of introspecting more during lockdown”

“Our lifestyle now a days is little calm so we can adjust things according to our mental pace” “Everyone knew that Delhi had the highest pollution levels but now it is so down that people are feeling happy and psychologically healthy”

### ● Negative Effects

As participants agreed that they are getting time for themselves and enjoy being at home they have simultaneously also mentioned that this can't be denied that while at the same time some people are enjoying this time, for some people it's overwhelming as usual routine is not there, eating, sleeping habits are affected, anxiety and stress is also experienced by so many people known to them and impact is massive. Statements supporting this sub theme are:

“I have never been so unproductive even though I have time whole day I feel exhausted for some reason, I am not working out, being eating a lot, sleep schedule changed, my period cycle delayed- all of these are the patterns that I used to go through during exams”

“My stress level has increased, feel more anxious staying inside my house”

“Screen timing has increased and it is impacting our sleep patterns, eating habits, cortisol level etc.”



Orientation towards Environmental change and their relation with Mental Health during COVID-19  
Pandemic

“For people who are anxious about covid-19 for them seeing empty roads, not able to go out or seeing people wearing masks would be too much to handle”

“Psychological impact is massive and it needs to be handled too in the current situation”

“I am not liking Delhi like this, people are not doing walking, everyone is walking wearing masks it doesn't look good”

“Everything is going good and to enjoy the positive thing in environment there needs to be a mental space to, many people in today's time are not under right state of mind they are feeling stressed, anxious because of the current situation, not everyone likes empty roads”

### **New learning's**

Time during lockdown have been tough for everyone but as narratives are shared by participants it was found that during lockdown experiences have been positive like developing new habits like Gazing at nature, being grateful, turning waste etc. Statements supporting this theme are:

“Corona has made us really self-sufficient now, we have new habits like maintaining hygiene and be cleaned”

“Nature watching- sky watching, bird watching”

“Now when I watch nature I try to capture everything in eyes level of appreciation increased, introspection has increased”

“Earlier we used to be so busy that we were not able to absorb impact but now we are feeling different and embracing it”

“Before covid-19 we never use to enjoy so much because of busy life but now we have time and mental peace to enjoy these things”

“I haven't done it now but i am going to start gardening on terrace”

“I have started promoting this thing amongst my family and friends that since we are not going outside and it are not much hot now we can switch off AC once the room is clean, since CFC is deteriorating environment badly”

“I have started developing this thing that I open all windows and doors so that ventilation is good, avoided using AC now it has become tolerable for us”

“Out of juice cartons and keventers bottle I make boxes for pen stand and to keep other things”

“I built interest in planting plants it gives such a good vibe, small plants really help in mood enhancing”

“I explored myself i gained a new level of confidence I will just want to say keep on trying new things and be busy as it helps in keeping track of mental health”

## Discussion

In 2019 Delhi was ranked as one of the world's worst polluted cities in the world. In November 2019, Delhi Government declared an emergency. Residents of Delhi were facing physical health issues like cardiovascular diseases, lung cancer, and respiratory diseases and parallelly it led to an increase in psychological issues as well. In 2020, covid-19 has impacted human lives and environment drastically in Delhi. Because of the virus, impact on human lives was dreadful but on the other hand the environment is parallelly going through a cleansing process which is very necessary for its healing. As much as the impact on psychological health is drastic and massive and should be attended, the cleansed environment should be preserved too.

Everyone nowadays wants to move to a bigger city to have a better lifestyle, better working opportunity and conditions etc. which leads to urbanization. Urbanization had a huge impact on the traditional system of the country- the way people used to live, the way society was bended together and also most importantly the way the environment used to be taken care of and worshipped in India. Environmental Psychology is a sub discipline of Psychology which talks about how being in a natural or non-natural environment affects one's psychological wellbeing. It also talks about the environment which was ruthlessly exploited by humans and in the name of modernization when forests were cut, animals were killed and human lives got surrounded with tall buildings, jammed transports, pollution environments and less greenery and all these not only had physiological impact on health but also led to psychological effect on mental health (Correia et.al, 2013), (Seidler, Wagner, & Schubert, 2016), (Lederbogen, Kirsch, & Haddad, 2011). Researches have shown that environment impacts psychological processes like Attention (Hartig et.al, 2003). Focus Group Discussion Method was used to collect data from college students who are residing in Delhi for a long time now and have had experiences with the changed and deteriorated environment in the last few years. Data was analysed using thematic analysis and following themes emerged “Understanding the term”, “Life in Delhi” , “Environmental Condition”, “Psychological Effects”, “ New Learning's” Data has shown that participants have agreed on the polluted environment earlier in Delhi because of which they faced a lot of physical health and mental health issues and since Covid-19 has spread across the country because of which nationwide lockdown was imposed, the environment got its time to heal and revive itself. Some of the participants revealed that they have now formed a new bond with the environment and it's therapeutic for them.

One of the participant residing in South Delhi narrated “I am living in Delhi at a place where I never felt presence of pollution, I am so grateful that even during lockdown I can go for a walk here, since it's not densely populated and lot of trees are here situation is much different, I have four huge trees in my backyard

and they are so good it's a great view every time I go there". Another participant shared that "My grandmother says that since we were not doing anything for the environment so the environment took its initiative to heal itself". It was surprising to hear when participants shared that now my relatives and neighbours have become more insightful they keep dry and wet waste separately and diffusion of responsibility is not there anymore as people are themselves taking initiatives to clean streets and to sustain such behaviours. From the analysis it was also found that people are very much scared of catching the virus and hence sometimes they do behaviours of littering the environment, they are guilty and working on it and it's a start of the positive mindset for keeping the environment clean.

Overall analysis suggests that participants agreed that living in Delhi was really dangerous because of soaring pollution levels and since lockdown environmental conditions have improved drastically. Psychological Impact has been both positive and negative. Positive in the sense that it's a break from fast paced life, good time to work on relationships and one, learning appreciating and being grateful. Negative impacts like anxiety, stress, loneliness etc. are the mental health issues people are struggling with since they are confined to their homes, with no further interactions with people, same daily routine etc. Irrespective of this participants said that they are fighting with mental health issues and getting involved with the environment is helping a lot and one of the participant quoted "Be grateful and cherish the environment". Limitations of the present study which can serve as future implications are mixed method approaches that can be used to give more concrete results. Secondly as this study was done with a group of 12 participants, more than one focus group discussions with different age groups can be conducted for a generalized implication.

This study can also work as a reference for environmentalists, government officials and also for mental health professionals so that they can spread awareness about environment conservation, how pollution can be controlled, forming strict policies to save the environment, strict punishments for being merciless towards environment and also by informing them how the environment plays a vital role in anxiety, stress and well-being.

### References:

1. Charehjoo, F., Etesam, I., & Rasoulpour, H. (2018). The Roll of Environmental Psychology in  
a. Architecture and Urban Design. *Journal of Architecture and Construction*, 1 (2), 11-15.
2. Correia et.al. (2013). Residential exposure to aircraft noise and hospital admissions for cardiovascular diseases: multi-airport retrospective study. *BMJ* .
3. Eroğlu, H. (2020). Effects of Covid-19 outbreak on environment and renewable energy sector.
4. *Effects of Covid-19 outbreak on environment and renewable energy sector*.
5. Evans, G. W. (2003). The Built Environment and Mental Health. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 80(4), 536-555.
6. Ghansiyal, A. (2020). *Before And After: The Environmental Impact Of COVID-19 In Cities* .  
a. Retrieved from Travel Earth : <https://travel.earth/environmental-impact-of-covid-19/>
7. Gilchrist, K., Brownb, C., & Montarzinob, A. (2015). Workplace settings and wellbeing:  
a. Greenspace use and views contribute to employee wellbeing at peri-urban business sites.
8. *Landscape and Urban Planning*, 138, 32-40.
9. Gruebne et.al, O. (2017). Cities and Mental Health. *MEDICINE* , 121-127.

10. Hartig et.al. (2003). Tracking restoration in natural and urban field settings. *Journal of Environmental Psychology*, 23(2), 109-123.
11. Heekin, K., & Polivka, L. (n.d.). Environmental and Economic Factors Associated with Mental  
a. Illness. *IBID*.
12. Hope, K. W. (1998). The effects of multisensory environments on older people with dementia.
13. *Journal of Psychiatric and Mental Health Nursing*, 5, 377-385.
14. Kalavathy, S. (2004). The Multidisciplinary of Nature of Environmental Studies. *Environmental Studies*.
15. Karmanov, D., & Hamelb, R. (2008). Assessing the restorative potential of contemporary urban environment(s):. *Landscape and Urban Planning*, 86, 115-125.
16. Kuo, F. E. (2001). COPING WITH POVERTY Impacts of Environment and Attention in the Inner City. *ENVIRONMENT AND BEHAVIOR*, 33(1), 5-34.
17. Lederbogen, F., Kirsch, P., & Haddad, L. (2011). City living and urban upbringing affect neural social stress processing in humans. *Nature*, 498–501.
18. Lokhandwala, S., & Gautam, P. (2020). Indirect impact of COVID-19 on environment: A brief study in Indian context. *Environmental Research*, 188.
19. Mahato, S., Pal, S., & Ghosh, K. (2020). Effect of lockdown amid COVID-19 pandemic on air quality of the megacity Delhi, India. *Science of the Total Environment*, 730.
20. Marcus, C. C. (2000). Gardens and health. *International Academy for Design and Health*, 61-71.
21. Mathew, V. G. (2001). *ENVIRONMENTAL PSYCHOLOGY*. Retrieved from  
a. Psychology4all.com: <http://www.psychology4all.com/environmentalpsychology.htm>
22. Moser, G. (n.d.). Environmental Psychology for the New Millenium: Towards an Integration of Cultural and Temporal . *Encyclopedia of Life Support Systems (EOLSS)* .
23. Muhammad, S., Xingle, L., & Salman, M. (2020). COVID-19 pandemic and environmental pollution: A blessing in disguise? *Science of The Total Environment*, 728.
24. Nielsen, T. S., & Hansen, K. B. (2007). Do green areas affect health? Results from a Danish survey on the use of green areas and health indicators. *Health & Place*, 13 , 839–850.
25. Nikelly, A. G. (2001). The Role of Environment in Mental Health: Individual Empowerment through Social Restructuring. *The Journal of Applied Behavioral Science*, 37 (3).
26. Remoundou, K., & Koundouri, P. (2009). Environmental Effects on Public Health: An Economic Perspective. *Int J Environ Res Public Health*, 6 (8), 2160–2178.
27. Saigal, K. (2020). *How is COVID-19 impacting the environment around us?* Retrieved from Invest India: <https://www.investindia.gov.in/team-india-blogs/how-covid-19-impacting-environment-a-round-us>
28. Seidler, A., Wagner, M., & Schubert, M. (2016). Myocardial infarction risk due to aircraft, road, and rail traffic noise: results of a case control study based on secondary data. *Dtsch Arztebl Int*, 14, 113: 407.
29. Vries, S. d., Verheij, R. A., Groenewegen, P. P., & Spreeuwenberg, P. (2003).
30. Naturalenvironmentsöhealthyenvironments?Anexploratory analysis of the relationship between greenspace and health. *Environment and Planning*, 35 , 1717-1731.
31. Zhang, X. (2016). Introduction to Environmental Psychology and Applications for Modern Interior Design. *International Conference on Education, Sports, Arts and Management Engineering*, 939-946.