ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 8| August 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

ENVIRONMENTAL EDUCATION AND MENTAL HEALTH

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Article DOI: https://doi.org/10.36713/epra23746
DOI No: 10.36713/epra23746

ABSTRACT
Environmental issues and mental health both are the emerging topic in global level. Maximum studies recognize that mental health is directly and indirectly affected by environment. Residential crowding, loud noise, air pollution and climate change are the causes of behavioural disturbances such as stress, depression, aggression and anxiety. Where environmental education deals with various rules and has significant impact on human health. It helps to know about the interdependency of living things and to promote sustainability by developing a sense of responsibility of human being toward environment. Environmental education is highly relevant for individuals to decrease the mental illness. Today's young generation is suffering from various mental health issues. So, it is very necessary to introduce environmental education as a compulsory subject at each level of education, including university level to resolve environmental issues and improve mental health.

KEY WORDS: *Climate Change, Education, Environment, Mental Health, Pollution, SDGs*

INTRODUCTION
If we look farther back when formal education system did not exist, we can see that people learned about environment by interacting with environment. They acquired practical knowledge about environment and transferred it to the next generation. They developed their traditional ecological knowledge and traditional ecological management system to make balance among diverse ecosystem. But in 21st century, people are more advance and they develop their surroundings according to their convenient. People are becoming aware about various environmental degradation due to advancement of technology and scientific knowledge. But still, they are not serious about increasing environmental crisis and do not give importance to the harmonious coexistence of nature and human. Environment affects either positively or negatively to our mental health which is the integral part of social, political and economic development. According to **World Health Organization (WHO),** mental health is very essential for sustainable development. So, inclusion of environmental education to our main stream curriculum is very essential to develop sustainability. Many countries provide environmental education as a compulsory subject to improve environmental sensitivity among young generation. According to **B. Rychnovsky,** it is very necessary to focus on anthropogenic changes of macro- biogenic elements' circulation with subsequent effects on human health. According to **E. Scott Geller,** environmental education is able to promote the caring and nurturing of environment which ultimately enhance the quality of desirable life**.** Todays polluted environment is very harmful for people for example, air pollution, water pollution, noise pollution etc push us toward mental illness. But if we think critically, we are convicted for our own mental illness. Covid- 19 pandemic is the recent global event which directly impact our mental health and slowdown the worldwide economic development. In the pandemic period people were suffering from various mental health issues and isolate themselves in indoor environment. It is very necessary to strengthen resilience of people to overcome any unexpected difficulties. So, it can be said that environmental development and mental health both are intercorrelated. Without good mental health we are unable to think about sustainability of environment and without healthy environment we are unable to maintain our physical health, mental health and social health. So, people need to be concern about the reason of environmental crisis, mental health problem and how it is possible to prevent.

Environmental Education
Environment means a sum total of the biotic and abiotic elements presents on the earth and their interaction in our surroundings. The term environment comes from the French word "Environner", which means "surroundings". The environment is a complex term which has interrelationship among various factors. Environment plays a lead role in behavioural development and physical growth of individuals and any other organisms. Environment provides necessary goods and services to support life of individuals and other living things. So, it is very necessary for individuals to know about environment and be aware about their harmful activities for environment. Where, Environmental education plays a crucial role to enable individuals to learn about the complex environmental and real-world issues and enable them to develop structural knowledge about the world. Environmental education is multidisciplinary in nature and integration of different multiple disciplines such as biological science, physical science and health science. Individuals acquire

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multiple knowledge and their interrelation through environmental education. It also helps individuals to be aware about the needs of natural resource conservation and take necessary action to keep natural world healthy and energetic.
Elements of environmental education:

- Environmental knowledge
- Awareness of environmental issues and challenges
- Enable to identify environmental issues and challenges
- Ability to overcome environmental challenges
- Take responsibility to solve environmental problem
- Concern about the development of environmental quality
- Awareness about various environmental policies

Mental Health

Individuals' overall health is equally dependent on mental health as well as physical health. Mental health is the internal balancing capacity of individuals which enables them to realize own capability, handle stress, make healthy relation and choices. Mental health is dynamic in nature because circumstances in our life is not stable. It helps to overcome difficult circumstances through healthy adjustment capacity. Maximum people are not aware about early symptoms of mental health problem which may take vital role to make our life more complicated. Some warning sign of mental health problems are low energy, feeling hopeless, sleeping too much or too little, forgetful etc. Mental health is the ability to maintain gentleness, an alert intelligence, socially considerate behavior and a happy disposition. It is the collective abilities of individuals to make right decision in right time, build relationship and contribute to their community. So, mental health is crucial for individual development of community relationship and socio-economic development. World Health Organisation's (WHO) member states are committed to implement the "Comprehensive mental health action plan 2013-2030" for the improvement of mental health. There are many risk factors for mental health condition such as family violence, unsatisfactory professional life, unfavourable society, low socio-economic status and environmental issues etc.
Some common characteristics of a mentally healthy person are:

- Conscious control of life
- Emotionally well balanced
- Good temper
- Enable to make good relationship
- Independent thinking capacity
- Independent decision-making capability
- Realistic imagination power
- Well-regulated habit
- Calm and resilient mind
- Life satisfaction
- High self esteem
- Confident about goal

Importance of environmental education

Environmental education helps individual to understand the complex relationship among various organism. Environmental education makes human aware about the dynamically developing relationship between human and environment. Individuals realize their responsibility to sustainable development of society by solving the variant of environmental issues. Sustainable development of human civilization is completely depending on the active participation of individuals in environment creation and protection. Some importance of environmental education is discussed as follows:

- Environmental education helps to know about ecological system and interaction among various organism.
- It helps to know about presence of various renewable and non-renewable resources and sustainable utilization of these resources.
- Environmental education makes people aware about the necessity of conservation of natural resources.
- Environmental education enables people to identify and resolve environmental crisis.
- Environmental education makes aware about health-related issues and how it connected with our surrounding.
- Environmental education develops eco-friendly skills and technologies to reduce environmental crisis.
- It helps individuals to aware about the causes of vulnerable disasters such as flood, drought, earthquake, global warming etc. and how it is possible to control these disasters.
- It provides information about various environmental acts, legislation and other environment related issues which enable individual to make suitable decision for earth's protection.
- Environmental education motivates young generations to involve themselves in various environmental activities and communities.

Impact Of Human Activities on Environment

There is no doubt about the negative impact of human activities on environment. The earth is undergoing rapid environmental changes for human activities which destroyed large portions of ecosystem. Some direct and indirect effect of human activities on environment are discussed below:

Loss of Biodiversity

Biodiversity is the variety of life living in an ecosystem. Loss of biodiversity is one of the major negative effects of human activities in the environment. Over the last century, rapidly changing the ecosystem and massive loss of biodiversity across the planet for increasing human settlement, many trees are cut for the fulfilment of human necessity. But many animals become homeless and reduce the number of plant species. Extinction of many ecosystems and climate change is the reason for losses of biodiversity where, humans are directly responsible for this kind of situation.

Pollution

Pollution refers to the presence of harmful materials into the environment. Pollutants are two types such as natural and man-made. Now a days, man-made pollution is the major issue and very harmful for human health and environment. Air pollution take place for the harmful emissions of air pollutant from vehicle and factories. Uses of inorganic fertilizers, illegal dumping of the solid wastes, minerals and oils are causes of soil

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pollution. Similarly, water pollution is also increasing through discharging factory water, plastic waste and various anthropogenic garbage.

Climate Change

One of the significant and long-term effect of deforestation is climate change. Industrialization and growing human settlement are the reason of deforestation. Whereas the levels of harmful gases are also increasing due to deforestation. If these activities are continuing for a long time, will be very harmful for upcoming generation. Changing climate may not be suitable for human being or any other organism to survive. Delay in the arrival of monsoon, drought, storm and rising sea levels are take place for climate change.

Deforestation

Trees play a lead role to reduce carbon dioxide from the atmosphere but when tress are cut for urbanization and agricultural purpose, they can no longer to filter carbon dioxide. As a results, the quantity of greenhouse gases are increasing in the atmosphere. Greenhouse gases play lead role to trap heat and increase temperature of atmosphere. Flood and landslides are another cause of deforestation. So, it can be said that deforestation is the major contributor of climate chance and people are completely responsible for thoughtful condition of environment.

Ozone Depletion

Ozone layer plays a vital role to protect us from the sun's harmful ultraviolet radiations which are the causes of skin cancer and cataracts, reduction of agricultural productivity, breakage of marine ecosystems etc. The size of ozone layer is decreasing day by day for the production of chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and Halons through various human activities. The Montreal protocol (1987) is an international environmental agreement to protect the ozone layer by phasing out the production of ozone-depleting substances. But some industries have replaced ozone-depleting substances with other chemicals and still continue to harm ozone layer.

Positive Effects of Natural Environment on mental health

The environment has direct and indirect effect on mental health. Programming of brain development is affected by environments (Rutter, 2004c). The influence of environment may be positive or negative on the person's mental health. Some recent studies reveal that environmental issues or climate crisis are affecting the depression and anxiety level of human. Healthy environment has a curative effect on human health and help individual to realise the positive effect of environment. Sanitation, green spaces, clean water and air can improve the quality of life, productivity, healthy life-style, positive emotion, creativity and reducing stress which are very essential for the progress of mental health. Natural environment improves mental performance capacity in memory and attention-based task. It also helps to reduce impulsive decision making which is very harmful for person's life. Spending quality time with natural environment has positive impact on mental health. Some crucial benefits of natural environment on mental health are discussed below:

Improve Mental Abilities

Nature can provide a mentally break from the regular schedule of everyday life. It can make relax to our mind and boost creativity and problem-solving abilities of individuals. When someone facing difficulties to solve problem for mental block, step outside for a few minutes, breath of fresh air and drink fresh water are very useful technique to concentrate and focus any work.

Improve Physical Health

When individuals connect themselves with outdoor natural environment through various physical activities such as jogging and cycling, they get positive energy in physical health. Regularity in stepping outside and other physical activities help to keep a healthy weight, reduce muscle tension and reduce cortisol level. Physical activity also helps to release endorphins hormones which has positive impact on mental health. Even outdoor sunny environment helps to increase the level of vitamin-D, which is very useful for our immune system, bones and blood cells. These physical fitness causes of good mental health.

Reduce Stress Level

Park and green space help to prevent mental tiredness and improve mental well-being. Weekend nature trip make energetic for new work week after stressful day. Natural environment has calming effect on human mind and it helps to improve attention and concentration toward daily activities.

Reduction of Depression

Now a days, depression is the common mental illness of human being. Urban people are suffering from depression and mental distress due to limited contact with nature as compare to rural people. Nature encourages to do physical activity. Physical activity helps to normalize heart rate and blood pressure which are the significant contributors of depression.

Boost Self Esteem

Spending quality time with nature can boost individuals' self-esteem. Green natural environments help to increase individuals' happy hormones which take a crucial role to improve mood, to feel better about themselves and make mentally strong.

Improve Healthy Social Interaction

Human interaction is very essential to improve emotional intelligence and crucial soft skills for good mental health. Park, zoo and nature trips provides a suitable environment to meet and interact with each other and reduce social isolation. It helps to make healthy connection with community and improve the purity of relationship.

Improve the level of confidence

The level of confidence improves through the interaction of individuals with natural environment. Nature provides freedom to everyone to interact with natural environment. They get chance to experience real world, improve realistic thoughts and be confident.

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Negative impact of polluted environment on mental health

Pollutions: Air pollution is another environmental issue which is very harmful for human being. It physically affects through damaging lungs, eyes and hearts etc. There is also interrelation between poor air quality and poor mental health such as anxiety, dementia, depression, bipolar disorder, schizophrenia and suicide. This kind of risk is very high especially in urban areas, where the level of air pollution is also very high. Some studies show convincing evidence of interrelation between depression and $PM_{2.5}$. Even the concentration of lead is very low in blood may be the reason of behavioural difficulties, decrease thinking capacities and other learning problems. Air pollution is one of the major environmental health risks and single biggest environmental threat for human health pointed by World Health Organization.

There is also a strong association between higher level of noise pollution and poorer mental health. Noise pollution has negative impact on our mental health and some most common symptoms are facing difficulty to sleep, difficulty to concentrate, feeling hopelessness and emotional instability which are the reason of stress, depression and anxiety. Some adverse effect of noise pollution on mental health are headaches, nausea, neurosis, psychosis etc.

Major part of organisms including plant directly and indirectly depends on soil or land for production of food and habitant. Healthy soil plays a key role to filter water, carbon and nutrient cycles. But soil pollution is the risk factor for human health due to consumption of contaminated food from contaminated soil. Existence of Chemical pollutant in soil can directly affect lungs, liver, skin, kidneys and nervous system. Thus, the failure and dysfunctions of various organs may be the reason of mental health issues such as stress, anxiety and depression.

Water is the another most demanding element for survival of organism. It is very necessary to drink adequate water to decrease the possibility of dehydration which negatively affects mental health. Polluted water is one of the primary sources of lead exposure which is not safe to developing brains. By the way, mental health may be affected by unsafe drinking water which is the basic need of individuals. Water pollution is reason of various health issues like cholera, hepatitis, cancer, gastrointestinal infections and typhoid. All these kinds of physical problems may be the reason of mental health issues. Hence it can be said that water pollution has significant impact on human health also.

Climate Change on Mental Health: Climate change and mental health both are most challenging and crucial phenomena facing citizens around the world. Though it is global issue and people are aware about its negative impact on mental health, no sufficient actions are taken to mitigate the impact of climate change. Higher authorities of policy making and health system have not yet avowed and responded about the threat of climate change and how it poses to mental health. Rising temperatures and flood are the reason of worsening mental health as well as physical health which increases the level of depression, extreme distress and post-traumatic stress disorder. For the changing climate especially, high temperature and heatwaves are the reason of societal violence, conflict and economic output reduction. Even increasing temperature affecting blood flow and the central nervous system and make people physically disturbed and unable to take cognitive and emotional decision which may affect negatively to the mental health. The economic and social breakdown for climate change and forced displacement after any environmental hazard may be the reason of mental disorders, depression and anxiety. Sometimes, insecurity of basic needs- food, drinking and habitat may affect negatively to the mental health. And other psychological traumas are arising after any disaster. The failure of crops for drought or delay monsoon leads to economic losses and hunger which can lead disappointment and distress as example, increasing suicide rates of farmers affected by drought. Climate change and other environmental issues are an existential threat especially to Europe and the overall world. European Commission approved **European Green Deal** in 2020 to protect, conserve and enhance the natural capital of European union and protect health of citizens from environment related risks. The main objectives of the European Green Deal are to curb climate change and achieve climate neutrality by 2050. And this green pact is an offensive against carbon emissions to stop global warming because decarbonisation is the main weapon for the reduction of global warming.

Mental Health and Sustainable Development Goals

Mental health is the human right declared by World Health Organisation. WHO, 1978, also define that mental health and psychological wellbeing were an integral part of health. Sustainable development is impossible without mental health. For that to maintain sustainability in development, outline 17 Sustainable Development Goals are to improve health, education, economic growth and healthy environment. In addition, good mental health enables people to reach and fulfil SDGs. SDGs 3 which main focus was on mental health and wellbeing. Mental health is a vital for today's young generation for educational achievement. "Efforts to eradicate poverty, prevent conflicts and disasters, and promote education will not be successful unless mental health is prioritized. Poor mental health and unfulfilled human potential pose major risks to the changes that are needed if we are to reach the SDGs" (**Dybdahl & Lien, 2017**). Where quality education plays a lead role to promote and protect individuals' mental health through proper knowledge, life skills, meaningful activities and social networks. Success of SDG 3 depends on other SDGs goal. Mental health must be prioritized because it may be the barrier of global economic development and other SDGs.

CONCLUSION

Now a days environmental issues and human health crisis are a very sensitive topic. People need to be aware about environmental crisis and how human activities are disrupting the balance of natural ecosystem. There are three components of human health such as physical, mental and social health and which are interconnected and affected by dynamic nature. Imbalance of one component may be the reason of another component's imbalance. Local government can play a vital role in tackling the mental health crisis by planting trees, establishing wildlife preserves, parks, reducing the emission of harmful gases in the atmosphere, motivate people to join

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environmental campaign and social welfare work. Adopt an integrated approach to improve human health through healthy ecosystem management system. Environmental sustainability is the common platform for Sustainable Development Goals (SDGs). So, environmental education is very necessary for our present generation to make them aware and empower to solve environmental issues.

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