



State of the science of environment, spirituality and health: An overview

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ABSTRACT

Indian culture is the oldest culture known in the world. It is enriched with the well-organized system of life and large number of literature, which enlighten cultural wealth of ancient India. Veda, Upanishads, Samhitas etc. provide sufficient knowledge about the cultural heritage and spiritualities and science. Health of human being is related to the state of mind, which is governed by various factors like anxiety, workload, mental tension etc. The objective of the present study was to elaborate the knowledge regarding vedic science, spirituality, environment, and health. To fulfill the objectives of the present study, searches were performed on the various research platforms (Web of Science, google scholar, research gate, science direct, and Scopus database). It was observed that there is a continuous debate on the definition of spirituality from its origin to till date. Spirituality and human health are related in positive and negative ways. People's health improved after practicing the spirituality and in certain cases, a downfall in health of spiritual people was noticed. Vedas considered as the base of modern science in literature. Spirituality was also found closely attached with the environment, as it not only revives the human soul but also to the environment. Spirituality and religious persons called environment as Mother Nature therefore the never damage its components. A clean and refreshing environment is the basis of good health of the persons living on the earth. Therefore, to revive the degrading human society, environment and health, there is a need of huge number of people with high spiritual mind.

Introduction

In the past century due to industrialization and urbanization, life style has changed, which imposed the impacts on the health as well as on the environment (Lagziel *et al.*, 2022). Literature shows the relationship between environment, spirituality and health (Puchalski, 2001; Williams and Sternthal, 2007; Reinert and Koenig, 2013; Oman, 2018). Sometimes the spirituality affects the health in a positive way and sometimes in a negative way, depending on the choices of people (Isaac *et al.*, 2016). Veda is the ultimate source of knowledge. Exact age when Vedas were written is not known. As per assumptions, Vedas were composed between

2000BC and 500BC. They were the literature of the Brahmans and the oldest literature in the world. Veda consists of entire knowledge of nature. The Word Veda was originated from the word 'Vid' means knowledge. It starts right from the origin of the creation. India is the land of Veda and spiritualism, culture and religion. Vedic knowledge is so deep and large that it is impossible to interpret and spread it in short time. The four Vedas, which include entire knowledge of nature, are as following- **Rigveda:** It includes 10552 mantras, which are scientific and pragmatic. It teaches us how to live,

how to let live, devotion spirit divinity. According to Indian mythology, it is the oldest Veda.

Yajurveda: It includes 1975 mantras in which rules of sacrifice has been given. It explains way of worship. It is also gives scientific knowledge to the world.

Sam Veda: It explains all about Taal, Chhand, Music, Poetry, Literature and Human beauty. It has 1875 mantras. It gives a complete system of living, culture and a systematic development of society.

Atharva Veda: It includes materialistic science like commerce, economy, civics, physics, chemistry, biology, geology, astrology, astronomy etc. Atharva Veda also enlightens the human health and the complete remedy by using medicines. Entire knowledge of modern sciences and their practical applications are included in it.

Scientific Knowledge in Vedas:

Vedic science is the final science, which fulfills the objectives of modern science with emerging learner and process of learning in the field of investigations. It gives the full knowledge about all laws of nature. Vedic science is the final science it covers knowledge of probable of natural laws and bring human awareness with creative impulses and are engaged in converting in field of intelligence into field of matter. Satpath Brahmana consists of all scientific discoveries. The origin of modern science is found in vedic literature like Samhita, Brahmana, Aranyaka, Upanishada. Maharishi Kanad was the first to propose that every matter is composed of small fundamental particle called 'Kana' Vaisesika Darshan of Maharishi Kanad played important role in growth of physical idea in India. Kanika sidhanta 'Paramanuvad' based on natural scientific views of the ancient Indians. According to which Anu (atom) does not possess any property, but it combines with another anu (atom) to form dvainuka (Molecule) which in turns form a transrenu (trimolecule). Only the transrenu possess properties of the matter. Vaisesika objectively defines size of an atom as it does not have any property, the only transrenu can be seen by naked eye.

Definition of spirituality, environment and health

The word 'spirituality' was originally derived from the Latin word "spiritualitas" which corresponds to the Greek pneuma, 'spirit', and its adjective pneumatikos, as they appear in the Pauline Epistles

(Sheldrake, 2013; Holt, 2022). The base of division of the whole world was spiritual belief, the western countries follow Christianity belief and eastern countries follow the belief of Hinduism and Buddhism (Hasa, 2016). The concept of spirituality and religion are different from each other (Harvey, 1989). The modern concept of spirituality was come into light in late nineties, when the large number of people follows the concept of spirituality rather than religion and move away from this consumer world to obtain solace (Hay and Hunt, 2000; Roof, 2001). Based on the definitions available in the literature, spirituality can be defined as "the personal search of the objectives and meaning of life, which may or may not be related to religion. It encompasses the connections from self-chosen and religious belief, practices and values, which provide meaning to this life. These connections bring faith, hope, peace, and empowerment and motivate the human beings to obtain the optimum joy of life. The results of spirituality are joy, forgiveness, awareness and acceptance of hardship and mortality" (Tanyi, 2002; Puchalski *et al.*, 2014; McSherry and Cash, 2004). The meaning of spirituality changed over time and is understood different by different people (Zinnbauer and Pargament, 2005; Fisher, 2011; Huss, 2014; Jones, 2016; Oman, 2018). The word religion was derived from Latin word "'religo" which means "good faith," or it may have come from the Latin "religãre" which means "to tie fast" (Steinhauser *et al.*, 2017). Religion is a system of beliefs, including the belief in the existence of a supreme power (NHS, 2021). Finding of satisfactory and accurate definitions of both spirituality and religion is a difficult task. Health can be defined as the state of the body without any disease, illness, injury, and other physical and mental deficiencies in individuals (NHS, 2021). The word environment was derived from the French word "environ" which means total encircle, therefore, we can say that everything which envelops us may be referred to as the environment.

Spiritualism & Science:

"Science without spirituality is blind and
Spirituality without Science is lame"

Elbert Einstein

Spiritualism & Science are appearing to be unrelated, but when analyzed they are found to be much related to one and another like corners of a

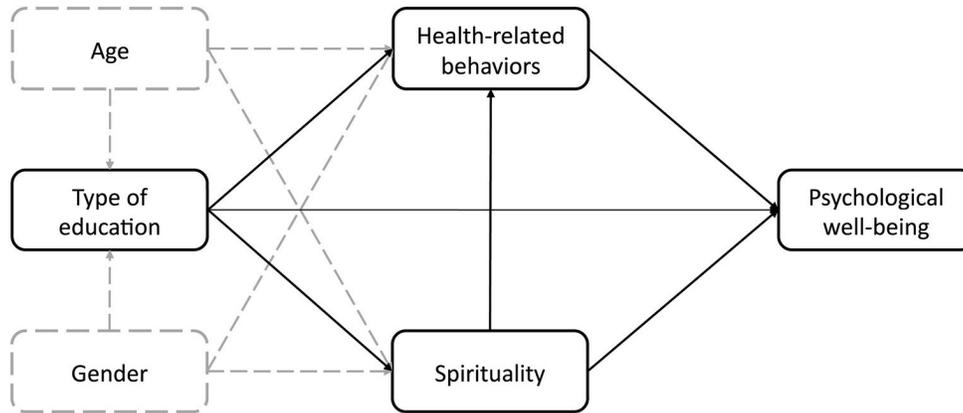


Figure 1: Showing the relation of spirituality and health (Source: Božek *et al.*, 2020).

triangles, in triangle each side is a simple line but when these meets in a system makes a triangle. In the same way if scientific discovery do not include human views it will not provide any benefit to society and will be just a science for no use. In the same way, spiritualism without science will not provide any benefit to society. Without any one of them, the identity of the Humanity should not be there. Scientific increment without spirituality is such as body without soul. Science we look today it move to society with attributes of Selfishness, self-destruction, Greed, Bloated Egos and Intolerance. Today we become slaves of scientific infrastructure and gadgets we have put together for service. We totally depend on scientific tools. Humanity required in human and progressive culture on world, where scientific and spiritualism development goes all together. Culture based on goodwill, tolerance, and principles of love, desire to grow, to move ahead we should have come before for well-cultured society, which includes the human values.

To achieve goal of spiritual-scientific culture on Earth, spiritual level of society humanity has to increase. There must be huge number of people with high spiritual mind to bring about change at very high rate. This may be tough, but things are really traveling in positive way. In spite of greed, materialistic and hatred hullabaloo, lot of us are feeling required for an inner quest. One should think for what are we here, what are we doing, why we are doing so? Why so much misery and pain in life? How to make our lives more meaningful?

What can be done to make our society better? Current inner quest will really help us to rise above normal. In addition, so long queues at doorsteps of religious preachers and Gurus. Only desire for an inside quest might not help enough. To achieve diversity, some more effort is needed dedicated and honest persons, working steadfastly and specifically to bring about change. Group should work honestly for the welfare of mankind; they should have humanity not to show but from inner corner of heart. In addition, one of way for them is to find for scientific-spiritual development of past.

Spirituality and health

Health of human being is directly relates to different beliefs and practices of spirituality and religion (Thoresen and Harris, 2002). Some aspect of spirituality and religion are overlapping means some values are included in both but both also have non-overlapping area means values (Thoresen, 1999). In a report of National Institute of Healthcare Research (NIHR), relationships between various religious activities and certain disease have shown (Larson *et al.*, 1997). The report says that it reduces the severity of pain (Yates *et al.*, 1981), blood pressure (Larson *et al.*, 1989; Koenig, 2013), cirrhosis (Comstock and Partridge, 1972; Koenig and Vaillant, 2009), and myocardial infarction (Medalie *et al.*, 1973). Most of the researchers pointed out positive effects of spirituality on health (McCullough *et al.*, 2000; Koenig *et al.*, 2001) but there are some researchers who found negative impacts on health (Bergin, 1983; Gartner *et al.*, 1991; Asser and Swan, 1998). Anxiety and

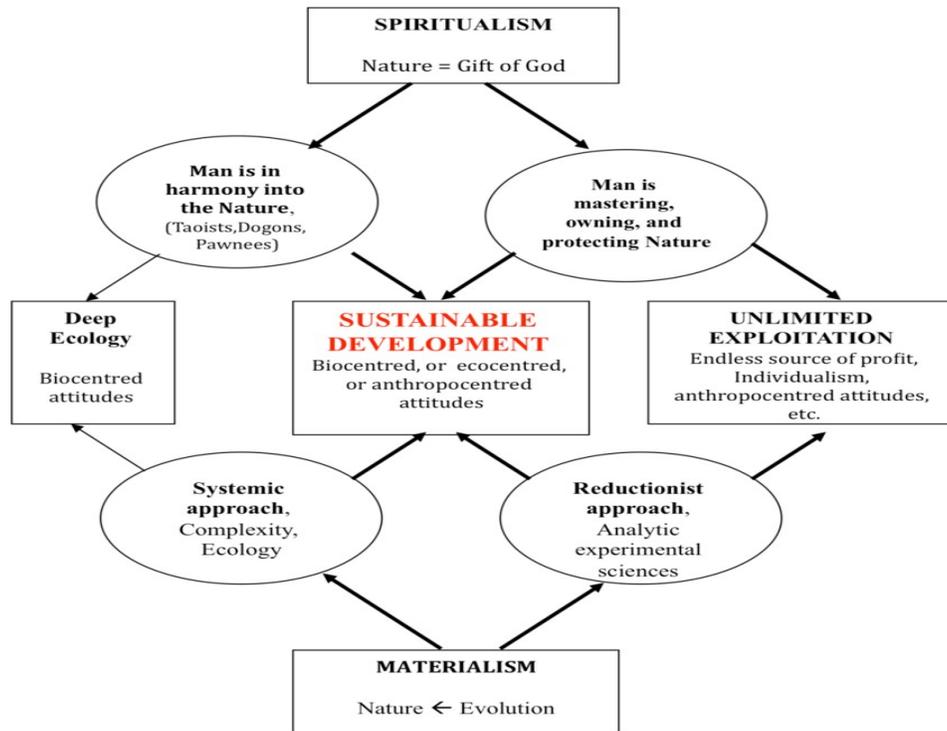


Figure 2: Situation of Sustainable Development and Environment (Source: Clément 2012).

depressions, mental health problems and suicidality were observed in persons that are more spiritual. The above said problems were observed in the persons, which intermixed religion with spirituality or they believe in old beliefs of spirituality. Although the spirituality reduces the anxiety among the peoples but due to the misconceptions, negative impacts were reported more in literature (Pargament *et al.*, 1998). An increasing interest for health and nutrition was reported around 1960. Dietary guidelines were first developed in USA in mid 1970s, which now has been developed by all industrialized countries around the globe giving the preference to the health of individuals (Trichopoulou and Vassilakou, 1990; Coveney, 1999). Faulty dietary habits disturb the functioning of the body, which made it difficult in achieving the spiritual purity (Foucault, 1982). A proper diet contains the nutrients in balanced proportions, which are important for the growth and development of the body as well as peace of mind, which helps in attaining the spiritual purity.

Spirituality and Environment

Industrialization and urbanization puts a stress on the weather and climate of this planet earth, which

results into bad effects on the health of organisms. Spirituality not only revive the human soul but it also change the vision of human beings towards the nature, which results into the revival of this mother earth (Nurnazar, 2022). Spirituality provides the insights about the nature to human beings. Spirituality teaches the importance of every sphere of the environment (lithosphere, hydrosphere, atmosphere and biosphere). Spirituality inculcates the moral values in the human beings and due to all these values human beings become sensible towards the environment. Spiritual persons take responsibilities itself rather making the other person liable for any degradation of environment and with this feeling human being try to conserve every bit of the nature which results into harmony between human being and environment.

Environment and health

There is a need of detailed multidimensional assessment to analyze the environmental problems globally and the center point of all those assessments should be human being. Existence of human being without environment is next to impossible. All the anthropogenic activities are responsible for the

disturbance in all the sphere of the environment i.e. lithosphere, hydrosphere, atmosphere, and biosphere. Various researchers performed the assessment and reported the changes in the physical, chemical and microbiological characteristics of these spheres (Bhardwaj *et al.*, 2020; Bhutiani *et al.*, 2021; Ruhela *et al.*, 2022a&b; Ahamad *et al.*, 2022a&b). Changes in physicochemical and microbiological characteristics of these spheres pose threats to human health in various ways. Long-term exposure to various agricultural chemical such as pesticides, insecticides, herbicides, fungicides and fertilizers affects the human health badly as presented in figure 2 (Sharma *et al.*, 2017; Rani *et al.*, 2021). Holloway *et al.* (2021) performed the satellite monitoring of air pollutants and assess their impacts on human health. The atmosphere near harbors and ports and especially in coastal areas, shipping is the main cause of air pollution, which results into respiratory diseases, inflammation, asthmatic disease, lung cancer, and cardiovascular diseases (Merico *et al.*, 2019; Yang *et al.*, 2021; Contini and Merico, 2021; Kalivitis *et al.*, 2022) and in some cases death (Verma *et al.*, 2021; Ryan *et al.*, 2021). Polycyclic aromatic hydrocarbons (PAH) released from electronic waste are also responsible for environmental pollution, which in turn affects the life of organism on this earth in a negative way (Ma *et al.*, 2022). Water is an essential element for the survival of human being on this planet earth. The entire water requirement is fulfilled by groundwater, surface water and some by rainwater. Industrialization and urbanization results into increased amount of wastewater generation. In India, due to lack of treatment facility, a large amount of wastewater is discharged into drains and on open ground either in treated or in untreated form, which causes water pollution of surface and groundwater pollution. Increased value of different physicochemical, microbiological and heavy metal parameters of water quality are responsible for various disease as predicted by several researchers after calculating the both carcinogenic and non-carcinogenic health risk index (HRI) of water quality and the long term exposure results into some other complex disease and sometimes death also (Adeloju *et al.*, 2021; Bhutiani *et al.*, 2021; Senoro *et al.*, 2022; Amuah *et al.*, 2022; Rahman *et al.*, 2022). Similar to air and water quality, soil quality is also

important for the human health as we get various nutrients from soil. Pollution due to hazardous elements has raised the attention of common men and scientific community throughout the world (Haghnazar *et al.*, 2021). Dumping of solid waste, disposal of untreated and partially treated domestic and industrial wastewater and agrochemicals are the main causes, which disturbs the physicochemical, microbiological, micro and macronutrients, and heavy metal characteristics of soil (Bhardwaj *et al.*, 2020; Ruhela *et al.*, 2022b). Besides this, various industrial, mining, and agriculture processes, waste treatment, extraction and processing of fossil fuels are some other sources of soil pollution (Raimi *et al.*, 2022). Due to their toxic and persistence nature, these pollutants accumulate in the soil as well as in plant parts and in turn into human body via food chain and pose threats to human life (Khan *et al.*, 2021; Abbaszade *et al.*, 2022; Boente *et al.*, 2022). All the toxins ultimately last in the soil and pollute all the spheres of the environment including water, air and food (Raimi *et al.*, 2022).

Conclusion

The present study was to elaborate the knowledge regarding vedic science, spirituality, environment, and health. To fulfill the objectives of the present study, searches were performed on the various research platforms for the literature study using different keywords. From above discussion, one can conclude that science without spirituality is human body without soul. Veda is the richest source of scientific advanced knowledge, but Veda is written in ancient Indian language Dev-Vani Sanskrit, therefore to have deep research on Veda deep knowledge of Sanskrit is required. Large no. of research dimensions on Vedas are in progress, in abroad and India. Some more positive in this direction are still awaited. Aim of current words is to put together all such similar-minded researchers on one stage with their views, to have sincere effort in this field. Modern science has made our life comfortable with so many investigations, like Radio, Television, Cars, Trains, Aero planes, Mobile phone, Internet etc. but it could not remove violence, cruelty, depression, anxiety and disharmony. All such problems can be solved by making science and spirituality hands together. From its origin to till date, none of the scholar is able to define spirituality

in a perfect way. Each scholar defined it in their own way, therefore till date there is a lot of confusion among peoples. In certain cases, spirituality shows positive impacts on human health and in some cases negative. Spirituality, human health and environment were found closely related to each other. Spirituality declared environment as Mother Nature therefore spiritual and religious persons

never damage its components. Therefore, to revive the degrading human society, environment and health, there is a need of huge number of people with high spiritual mind.

Conflict of interest

The authors declare that they have no conflict of interest.

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