

## **Chapter 2: Literature Review**

The literature review is aimed at critically reviewing the existing pool of research which studies whether lifestyle interventions can be used as preventive measures among high-risk Indians in India. Given the high probability of this population, the key to knowing the impact related to these diseases (CVD) includes dietary shifts, physical activities, and stress management (Cameron et al., 2018). The review is intended to be a magnifying glass for the deep analysis of the context of knowledge nowadays and to propose steps to narrow research gaps. The campaign recognises that lifestyle changes serve as a key method for the change and control of coronary heart disease that supports India's cultural and economic ways of life. The thematic arrangement starts with an in-depth search strategy, particularly on the incidence rate of heart disease in India, followed by a comprehensive study of various preventive measures, theoretical frameworks as far as these strategies are concerned, and the practical implication to public health. It finally states the knowledge gap that would be filled by further research.

### ***2.1 Literature Search Strategy***

Literature review on lifestyle modifications for heart disease in high-risk populations of India, primary research methods were also employed, all ensured to be efficient. The broad base of health and medical literature coverage was the key for databases like PubMed, Scopus, and Web of Science, and the same cover was accessible by Google Scholar. The keywords such as "Heart Disease India his lifestyle interventions", "Dietary Changes for Cardiovascular", "Physical Activity for Heart disease", and "Stress Management for Heart health" were combined using Boolean operators like "AND" so that a thorough search was assured. Studies were equivalently chosen based on the target population, lifestyle intervention, and English language communication for the search results from 2000 to the present to ensure that the contemporary research trends were followed (Carey et al., 2018). A strong emphasis was on peer-reviewed journals that offered empirical evidence of a direct causal association between dietary interventions, physical activity and stress management with the prevention or control of heart disease. This may be the most serious limitation given the fact that only a few articles were found to focus on Indian high-risk settings. The difference expanded the investigation to studies with a wide demographic focus and similar socio-economic milieu (Dhungana et al., 2018). The important views and findings originated from other studies showing healthcare alternatives and biological effects in high-risk Indian people, which were included.

### ***2.2 Overview of Heart Disease in India***

India is now saddled with a daunting problem due to the growing rate of heart disease, making death and disease the top problems throughout the country. The latest researches reflect the worrying tendency of cardiovascular disorders (CVD), such as coronary heart disease, hypertension and heart stroke, the Indian people face being the worst-hit. In the last few decades, there have been substantial increases in the prevalence of heart disease in India (Evans and Sims, 2022). A report indicates that the number of heart disease death rates in India is nearly 5 times larger than those documented in history. This decline is postulated to result from multifactorial processes involving changeable lifestyle behaviours and the inherent genetic predisposition. Central modifiable risk factors of major concern are consumption of unhealthy diets rich in trans fatty acids and sugars, sedentary living, smoking, and excess drinking of alcohol. Besides that, urbanization, with its consequent anxiety, caused both physical and mental risks to be more prevalent. Some of the risk factors of CVD are unchangeable, for example, systemic family history of heart disease, age, and certain gene profiles (Fletcher et al., 2018). Those also come with increased risk levels for specific populations. Heart Diseases in India affect the nation in much more than just health and have, more or less, economic importance. The economic costs of caring for those with heart disease, such as treatment expenses and loss of productivity through months of ill health, are significant. This situation perfectly signifies the significance of successful lifestyle interventions leading to high-risk groups. Numerous studies indicate that dietary changes, physical activity, and stress management are some of the most beneficial interventions, drastically reducing the likelihood of CVD. Modifiable risk factors like population control and reducing tobacco or salt consumption must be addressed through public health initiatives and by altering individual lifestyles. This intervention is crucial to check the torrential lives claimed by heart diseases in the country, urging the need for collective efforts to address the prevention and management of this fatal disease.

### ***2.3 Examination of Lifestyle Interventions***

The relentless rise of Coronary heart disease in India has become the subject of a careful inquiry on lifestyle interventions as very important steps for its prevention and treatment. One of the major precepts that are disciplined in this issue is diet, exercise, and stress management. A considerate role of each of these is in minimizing the risk of heart diseases, particularly towards the vulnerable populations. (Gupta and Wood, 2019) The following portion discusses empirical research on these actions- major results are summarized, and the issues relevant to the Indian context are depicted.

**Dietary Interventions:** One extremely important area that multiple research studies have shown to allow heart disease prevention and development is the introduction of defined nutritional norms. Research is full of evidence that a diet regimen featuring fruits, vegetables, whole grains, and a moderate amount of proteins, especially avoiding processed food, salt, and trans fats, can be used to reduce the risk of cardiovascular diseases (Haldane et al., 2019). Research has shown that in India, these traditional foods, especially those rich in fibre, antioxidants and healthy fats, may possibly counteract risks related to heart disease. It is a case of common sense that has not been considered. There is a huge research gap on dietary behaviour in different Indian cultural and socio-economic groups, with the range of Indian cuisine and dietary habits placing demands on the studies to be conducted locally to narrow down the interventions.

**Physical Activity:** It is well-established that physical activity plays a role in minimizing the risk of heart disease (Krist et al., 2020). Exercise is associated with improved cardiovascular health, blood pressure reduction, lipid profile, and weight maintenance. In India, the research on the effect of physical activity has been quite promising but narrow. However, most studies are based on urban populations leaving rural areas unattended where lifestyle patterns are significantly different. Research is required to combine the cultural choices and logistic barriers to physical activity to make the recommendations pertinent and achievable for the wider population.

**Stress Management:** Techniques of stress management, such as mindfulness meditation, yoga or exercise for lack of time, have been experimented for their ability to prevent heart disease. With India being a country with long-embedded yoga, the positive impact of doing this practice on cardiovascular risks is no longer just theoretical but reinforced by proven studies. Despite these, the research community needs to show more interest in compelling studies on long-term effects and the practical application of these methods on India's different age groups and population segments (McArthur et al., 2018). Many studies do not differentiate where various acceptance and accessibility of such practices are present in Indian society, and most studies should be conducted for each country.

**Integrated Lifestyle Interventions:** It appears that the escape of this situation is an included lifestyle intervention that trains participants to give up on unhealthy diets and participate in physical activities and stress management sessions. This multidimensional way of treatment appears very effective in the cardiovascular area, especially when focused on outcome

improvement (Mooventhan and Nivethitha, 2020). In the Indian scenario, where pilot studies revealed the positive side of holistic treatments, they were highly relevant among city dwellers specifically. The size of prospective, longitudinal research is still underway that aims to prove the success of these combined approaches in rural and underserved communities. The challenge for such programs will continue to be sustainable and culturally attuned programs that can be adopted by a society presenting different socio-economic realities.

Though substantial evidence suggests a link between lifestyle approaches being used in heart disease prevention and success, the research sector in India shows some major chasms. It needs to carry out next-generation studies tailored locally and culturally, but this should focus on a particular aspect (Nakao et al., 2018). For example, the unique diet, physical activity, and stress management characteristics adopted by Indians. Disclosure of the synergistic association of combined lifestyle interventions may be an inclusive strategy for controlling the spiralling rates of cardiovascular disease in the medical high-risk clusters.

#### ***2.4 Impact on Public Health and Nursing***

Lifestyle interventions play a substantial role in the kinetic prevention of heart disease. Besides personal health, they also influence public health measures, which will immensely impact the nursing profession in India (Prabhakaran et al., 2018). The trajectory of cardiovascular diseases (CVD) in the country completes the picture of the CVD burden, and advanced lifestyle modifications to combat it appear as the cornerstone for addressing this public health crisis. With these changes focusing on prevention instead of treatment, the health priorities, policies, and the role of nurses in the health sector will be tailored towards preventing diseases rather than curing them. The scope of public health is related to the preference and treatment of heart disease, the top killing cause in our country. The influenced lifestyles, including diet modification, supporting physical activities and stress management, have contributed to the reduction of the risk factors that are related to heart disease. The widespread adoption of these intervention strategies will likely result in a significant decline in CVD instances, resulting in better health across the population, a reduced health budget crunch, and an improved quality of life for millions of Indians (Prabhakaran et al., 2018). The Indian Government and the general public health authorities generated policies targeting heart disease prevention, a rising epidemic. Initiatives concentrated on informing, education, and community-driven interventions have been arranged to raise awareness about the need to live healthily (Volgman et al., 2018). Although a lifestyle modification program is very helpful for all, making it more

specifically tailored and culturally adjusted approaches is imperative. Such learnings can guide policies that cater more directly to different communities' specific excess of essential requirements, thus inducing a more rationalized way of living. The positioning of the nurses in India as an active treatment force could be a major paradigm shift from the preceding medical system that emphasized disease treatment and casualty care more. Nurses are used to realizing these strategies and can do so through patient education, community outreach, and participation in public health programs (Salas-Salvadó et al., 2019). A patient's client's advocates and public health personnel have the expert positioning to encourage positive lifestyle choices, track progress, and provide the assistance needed to resolve problems. Lifestyle as the focus area of nursing education may be a way of achieving a holistic approach where future nurses have the skills needed to address the multifaceted nature of the prevention of heart disease. Current policies that try to prevent heart disease can be highly strengthened by applying evidence-based suggestions from studies that guide people in improving their lifestyles. Fitting the local context, culture and ethnicity, socio-economic, and geographical features of India while implementing such policies will be important in helping achieve their poverty reduction goals (Scott et al., 2019). Integrating the latest research findings with health initiatives in the subcontinent can further the way for more improved valid prevention strategies, which can eventually contribute to a healthier population and a much more progressive, responsive healthcare system.

## ***2.5 Identification of the Knowledge Gap***

The literature review has exposed several important deficiencies in the existing studies on lifestyle interventions for the prevention of heart disease for high-risk populations in India. There is a lack of complete, longitudinal studies that evaluate the cumulative impact of dietary modifications, enhanced physical activity, and stress management techniques, specifically in the Indian context (Shariful, 2018). Although the components of the lifestyle interventions have been studied separately, the synergistic effect, especially among Indian populations characterized by different social, economic and cultural backgrounds, has been overlooked. More research on cultural tailoring in different regions within India is needed, including unique dietary habits, physical activity levels, and stress management needs (Sivanantham et al., 2021). The absence of details makes the development of attractive, flexible, and enduring heart disease prevention programs for the target population's lifestyles and preferences easier. This gap sees the need for the current study to fill the hole by performing a thorough evaluation of the effectiveness of integrated lifestyle interventions in preventing heart disease in high-risk

groups across India (Soltani et al., 2021). The study focuses on the broader impact of these interventions on public health outcomes. The study will usher in a new wave in the comparatively latest field of Faithfulness, Cultural Memory and Public health through culturally accepting, multidimensional approaches, the findings of which will contribute to the development of public health policies with regard to India, which is a unique country when it comes to demographic and cultural features.

## ***2.6 Theoretical Framework***

The Health Belief Model presents the core theory of this research around lifestyle intervention for heart disease prevention and this model is psychological where the beliefs and attitude of an individual are put to test. Humanize: HBM also points out that the belief in a threat to an illness and the effectiveness of the chosen behaviour will be the determinant of adherence to the recommended actions. This lifestyle intervention extension in heart disease prevention among high risk groups in India where this model is very useful as it highlights the risk factors and benefit of health behaviors. The HBM is concerned with the problem we look into, which is that health belief model is an important area where some gaps were identified in the literature. The framework provides for the examination of the delicate social, cultural, and psychological processes which determines health behaviours of a given Indian population (White-Williams et al., 2020). Model constructs such as perceived strictness, perceived susceptibility, apparent benefits, and apparent barriers may put forth a wide range of reasons for which high-risk communities in India either make or not adopt lifestyle changes to lower heart diseases. It will be demonstrated through HBM; the degree of significance individuals follows or do away with the nutritious changes that are good for their hearts. This understanding is crucial in developing intervention approaches that are culturally and contextually appropriate for the Indian population. Besides, the HBM emphasis on the impact of cues to action can help formulate the specific communication tactics that will help to improve awareness and change the behaviour. The Health Belief Model aligns with the study's objectives and fills the identified gaps by comprehensively understanding health behaviour change in the prevention context of heart disease.

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