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Original Research Article

Determinants of health among the general population in Hubli, Dharwad

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ABSTRACT

Background: Health represents a multidimensional concept shaped by cultural, social, economic, and environmental influences. Contemporary understanding emphasizes a holistic approach that integrates physical, mental, social, and spiritual domains to achieve overall well-being. The present study was undertaken to assess various determinants that influence health among the general population of Hubli–Dharwad, with particular attention to the contribution of spiritual health.
Methods: A community-based cross-sectional study was conducted among 200 randomly selected participants from urban and rural practice areas attached to KIMS Hubballi. Data were collected using a semi-structured questionnaire covering demographic, physical, mental, social, and spiritual dimensions of health. Descriptive statistics were expressed in frequencies and percentages, and associations between variables were analyzed using the Chi-square test.
Results: Among the 200 participants, 95% reported belief in spirituality; of them, 43 % had overall health scores above the median. Only 10% of the non-believers achieved comparable scores. Significant associations were observed between mental and social health as well as between spirituality and overall well-being ($p<0.05$).
Conclusion: The findings indicate that spirituality, in conjunction with physical, mental, and social well-being, plays a pivotal role in maintaining holistic health. Incorporating the bio-psycho-socio-spiritual model into community health practice may strengthen preventive and promotive health strategies.

Keywords: Determinants of health, Holistic model, Spiritual health, Well-being, Bio-psycho-socio-spiritual approach

INTRODUCTION

Health is universally acknowledged as one of the most valuable assets of human life. The World Health Organization (WHO) defines health as a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.[1] This definition underscores that health encompasses much more than freedom from illness—it represents a positive state of physical, psychological, and social harmony within an individual and the community.[2]

Over the years, rapid urbanization, industrialization, and technological progress have influenced lifestyles and disease patterns. The modern medical system has evolved into a highly scientific and technology-driven approach that effectively manages diseases, yet its reliance on expensive infrastructure and limited focus on social and cultural dimensions has created barriers to accessibility and acceptance, particularly in developing countries such as India.[3] Many communities still perceive that the modern medical system inadequately addresses personal beliefs, traditional practices, and the spiritual aspects of health.[4]

In response, the concept of holistic health has gained prominence as an integrative approach that considers an individual as a whole—body, mind, and spirit—and emphasizes the interdependence between humans and their environment. Holistic health incorporates multiple elements such as balanced nutrition, regular physical

activity, mental resilience, spiritual awareness, and social connectedness.[5] Unlike the conventional biomedical model, which primarily focuses on the diagnosis and treatment of disease, the holistic model promotes preventive care and self-regulation through practices such as yoga, meditation, mindfulness, and positive social engagement.[6]

Health is now widely recognized as a multidimensional phenomenon, influenced by a complex interplay of biological, psychological, environmental, social, cultural, economic, and spiritual factors. These various dimensions interact dynamically to determine an individual's overall well-being. The physical dimension pertains to anatomical and physiological functioning and reflects lifestyle factors such as diet, exercise, and sleep. The mental dimension includes cognitive and emotional stability, while the social dimension relates to interpersonal relationships and community participation. The spiritual dimension deals with an individual's sense of meaning, purpose, and connection with a higher existence.

Additional dimensions—emotional, vocational, philosophical, environmental, and cultural—also contribute to an individual's ability to adapt and maintain balance in life.[7,8] Collectively, these aspects form the foundation of a bio-psycho-socio-spiritual model that integrates physical, mental, social, and spiritual health as inseparable and mutually reinforcing components.[9]

Need for the study

Health plays a decisive role in shaping a person's overall quality of life, productivity, and social participation. Modernization and lifestyle transitions have introduced new challenges—rising stress levels, physical inactivity, dietary imbalances, and weakened social ties.[10] Mental and social health problems, once under-recognized, are now among the leading global causes of morbidity.[11] In India, the epidemiological shift from communicable to non-communicable diseases has further complicated the health landscape, highlighting the urgent need for preventive and promotive strategies that incorporate holistic well-being.[12]

Assessing the determinants of health from a multidimensional perspective helps in identifying specific gaps and opportunities for intervention. By integrating physical, psychological, social, and spiritual parameters into community-based assessments, it becomes possible to design targeted programmes that enhance well-being at individual and population levels.[13]

Purpose and aim

The present study was designed to explore the diverse determinants influencing health among the general population of Hubli–Dharwad, with special emphasis on the role of spiritual health. It seeks to contribute evidence supporting a holistic approach that goes beyond biomedical considerations, recognizing the influence of mind, society, and spirituality on health outcomes. The ultimate objective is to promote a framework that harmonizes the bio-psycho-socio-spiritual dimensions for achieving sustainable health and well-being in the community.[14,15]

METHODS

This cross-sectional study was carried out among the general population residing in the urban and rural practice areas attached to the Department of Community Medicine, KIMS Hubballi. The research sought to assess the physical, mental, social, and spiritual dimensions of health among adults living in Hubli–Dharwad.

Study setting and population

Data collection was conducted in selected wards of Hubballi city and adjoining rural field-practice areas between 21 August and 16 September 2023. Individuals of either sex aged ≥18 years who were permanent residents of the area and consented to participate were included in the study. Persons with severe physical or mental disability and those unwilling to give consent were excluded.

Study design and sampling

A community-based cross-sectional design was adopted. Participants were chosen through convenience sampling to ensure representation from both urban and rural zones. The final sample size was calculated using the standard formula for cross-sectional studies based on prevalence.

Thus, a total of 200 participants were enrolled for analysis.

Study tool

Data were collected using a semi-structured questionnaire developed in Google forms after a pilot test for clarity and reliability. The instrument comprised five major components-socio-demographic profile, physical-health indicators, mental-health parameters, social-health determinants, and spiritual-health assessment. Each domain consisted of multiple-choice or Likert-scale items scored to derive composite indices for the respective health dimensions.

Data collection procedure

After obtaining informed consent, respondents were interviewed either face-to-face or via electronic link depending on convenience and connectivity. Field investigators were trained in interview techniques and ethical practices before data collection began. Confidentiality of responses was strictly maintained.

Data management and analysis

The responses from Google forms were exported into Microsoft Excel and cleaned for inconsistencies.

Descriptive statistics—frequencies, percentages, and mean±SD - were computed to describe demographic characteristics and domain-wise health scores. Associations between variables were tested using the chi-square test at a 5% level of significance.

All analyses were performed using statistical package for the social sciences (SPSS) version 25.0. Results were presented in both textual and tabular formats to ensure clarity and reproducibility.[16,17]

RESULTS

As shown in Table 1, most respondents were aged 20–39 years (46%), and slightly more were females (53%) than males (47%). Nearly half had completed graduation or higher education, and 59% were employed.

Table 1: Demographic and socio-economic profile of participants.

Variables	Frequency (n=200)	Percentage (%)
Age (years)		
<20	25	13
20–39	92	46
40–59	61	31
≥60	22	11
Gender		
Male	94	47
Female	106	53
Education		
Illiterate/primary	34	17
Secondary/PUC	68	34
Graduate and above	98	49
Occupation		
Employed	118	59
Unemployed/housewife	60	30
Student	22	11

Higher median scores were observed in mental (66%) and spiritual (75%) dimensions, indicating that inner well-being and spiritual practices were more positively perceived compared with physical and social domains (Table 2).

Table 2: Distribution by health dimensions.

Health domain	Above median score n (%)	Below median score, n (%)
Physical	126 (63)	74 (37)
Mental	132 (66)	68 (34)
Social	120 (60)	80 (40)
Spiritual	150 (75)	50 (25)

A significant relationship was found between spirituality and overall health (χ^2=5.91, p<0.05). Individuals expressing stronger spiritual beliefs were more likely to report good holistic well-being (Table 3).

A moderate positive correlation existed between mental and social health scores (r=0.46), suggesting that better social interactions contributed to improved mental stability (Table 4).

Table 3: Association between spiritual health and overall well-being.

Spirituality status	Good overall health, n (%)	Poor overall health, n (%)
Believers (n=190)	82 (43)	108 (57)
Non-believers (n=10)	1 (10)	9 (90)

χ^2=5.91, p=0.015, <0.05

Table 4: Correlation between mental and social health.

Correlation pair	Pearson's r	P value
Mental versus social health scores	0.46	<0.001**

**P value statistically significant

DISCUSSION

The present community-based study was undertaken to identify the key determinants influencing the health of the general population in Hubli–Dharwad, emphasizing the multidimensional concept of health that integrates physical, mental, social, and spiritual domains. The findings reaffirm that health is a dynamic state shaped by individual behaviour, socio-economic background, and community environment rather than a mere absence of disease.[18]

A majority of respondents were young adults aged 20–39 years and predominantly female, reflecting the demographic distribution of the study area. Similar age and gender trends have been reported in population-based surveys across Karnataka and Maharashtra, indicating better participation among women and younger adults in health studies.[19] Educational attainment showed a positive association with health outcomes; individuals who had completed graduation or higher levels of education demonstrated higher holistic-health scores. This finding is consistent with national data from NFHS-5, which highlights the role of literacy in improving health-seeking behaviour and awareness.

The study observed that mental and spiritual well-being were the most positively rated dimensions, exceeding physical and social health. Spirituality has increasingly been recognized as a stabilizing factor that enhances coping capacity, promotes optimism, and reduces stress.[20,21] Studies conducted in India and abroad have similarly shown that spiritual practices such as meditation, prayer, and mindfulness contribute to better mental and

emotional balance.[22] In the current study, participants reporting regular spiritual practices exhibited significantly higher overall health scores, supporting the inclusion of spirituality as a measurable determinant of well-being.[18]

The moderate correlation between mental and social health in the present analysis also aligns with earlier evidence suggesting that supportive interpersonal relationships enhance resilience and cognitive functioning.[19] Social integration and family support act as buffers against psychological distress and encourage positive health behaviours. Public-health frameworks increasingly advocate for interventions that strengthen social capital—through self-help groups, community engagement, and participatory health programmes—to reinforce mental health.[20]

Physical health outcomes were somewhat lower compared with the mental and spiritual dimensions. This may reflect lifestyle-related challenges common in urban and semi-urban populations, such as inadequate physical activity and dietary transitions. Several studies have attributed this imbalance to occupational stress, sedentary habits, and the growing prevalence of non-communicable diseases.[21] Therefore, integrating physical-activity promotion and nutrition education within community-based initiatives is essential to achieve balanced health across all domains.

Overall, the findings reinforce the bio-psycho-socio-spiritual model of health, wherein biological, psychological, social, and spiritual determinants interact continuously. Incorporating spiritual health within preventive and promotive strategies can bridge the gap between modern medicine and traditional value systems. Such an integrative approach aligns with India's National Health Policy 2017, which advocates holistic care through convergence of medical, social, and behavioral interventions.[22]

Limitations

Being a cross-sectional design, causal relationships between determinants and health outcomes could not be established. Self-reported responses may have introduced recall or social-desirability bias. The study was confined to specific field-practice areas of KIMS Hubballi, which may limit generalizability to other populations. Nevertheless, the large community-based sample provides meaningful insights into the holistic determinants of health in an urban–rural setting.

CONCLUSION

The study highlights that health is a multifaceted construct extending beyond biological fitness to include mental stability, social connectedness, and spiritual harmony. Among the general population of Hubli–Dharwad, higher spiritual awareness and educational attainment were associated with better overall well-being. A significant relationship between spirituality and mental health further substantiates the holistic model of care. Integrating spiritual and psychosocial dimensions into community programmes can enhance the effectiveness of preventive and promotive health strategies. The findings endorse the adoption of the bio-psycho-socio-spiritual framework as an operational guide for primary-health services and behavioral-change initiatives in India.

Recommendations

Integration of holistic care

Incorporate mental, social, and spiritual-health promotion into national programmes such as the National Mental-Health Programme and NPCDCS.

Community participation

Strengthen peer-support and self-help groups to foster social connectedness.

Lifestyle modification

Encourage physical activity, balanced diet, and stress-management practices (yoga, meditation).

Health education

Design IEC materials addressing holistic well-being and distribute them through PHCs and community volunteers.

Further research

Longitudinal studies are needed to explore causal pathways among the bio-psycho-socio-spiritual determinants.

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