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INFRASTRUCTURE AND FITNESS CULTURE: A REGIONAL STUDY OF RURAL–URBAN DIFFERENCES

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ABSTRACT

This study provides a comprehensive analysis of the structural and functional characteristics of health and fitness clubs in rural and urban areas of Punjab, India. With rising health awareness in modern lifestyles, fitness has become an essential part of daily life; however, systematic research on the quality and accessibility of fitness facilities in India remains limited. The research was conducted in two phases, involving the collection of infrastructural data from 210 gyms and functional data from approximately 1100 members across four districts—Patiala, Ludhiana, Jalandhar, and Amritsar. The gyms were classified into commercial, cooperative, community, and clinical categories for detailed evaluation. Findings reveal a strong urban concentration of health clubs (about 90%), with minimal presence in rural areas, indicating significant disparities in access. Urban gyms commonly face overcrowding and space limitations, whereas rural gyms lack proper development and standardization. While basic equipment is widely available, advanced facilities and comprehensive wellness services are largely insufficient. The study also highlights key challenges, including a shortage of qualified trainers, poor safety preparedness, and low female participation. Overall, fitness culture in Punjab remains underdeveloped, particularly in rural areas. The study emphasizes the need for improved infrastructure, standardized policies, and inclusive approaches to ensure equitable and sustainable growth of the fitness sector.

Keywords: Fitness Infrastructure, Health Clubs, Rural–Urban Disparities, Fitness Culture, physical activity

1. INTRODUCTION

In the contemporary era, health and fitness have become essential components of everyday life, largely due to the increasing pace, stress, and sedentary nature of modern living [1,2]. People are conscious of maintaining physical well-being, not only for athletic purposes but also for leading a balanced and productive life. Fitness is no longer confined to sportspersons; rather, it has evolved into a widespread cultural practice embraced by the general population to enhance energy levels, improve mental health, and prevent lifestyle-related diseases [3,4]. In response to this growing awareness, the fitness industry has experienced rapid and exponential growth in recent years. There has been a remarkable increase in the number of health clubs, gyms, fitness centers, and wellness hubs across both urban and rural areas [5,6]. This expansion reflects a shift in societal attitudes, where individuals actively seek structured environments to pursue their fitness goals. The surge in demand has also led to the proliferation of commercial fitness establishments in cities as well as smaller towns, contributing significantly to the service sector [6,7].

Despite this substantial growth, the fitness industry remains insufficiently researched, particularly in the Indian context. People, nowadays are generally aware of the importance of fitness and the availability of facilities, however there is limited understanding of the quality and adequacy of infrastructure, the availability of essential equipment, and the professional qualifications of trainers working in these centers [8,9]. Furthermore, smaller and single-purpose fitness clubs, especially in rural areas, often operate without standardized guidelines, making it difficult to evaluate their effectiveness and safety [10]. At the global level, organizations such as the International Health, Racquet and Sportsclub Association (IHRSA) have made notable efforts to document and analyze trends within the fitness industry [5]. Their publications, including global and regional reports, provide valuable insights into industry growth, structure, and consumer behavior. Additionally, research studies such as those conducted by Pedragosa and Correia have examined customer expectations and satisfaction levels in fitness clubs [11]. However, similar comprehensive and systematic studies are largely absent in

India, creating a significant gap in reliable data and evidence-based understanding [9,12]. The absence of standardized national surveys highlights the need for focused research on the fitness industry at regional and state levels. Evaluating the existing infrastructure and functional aspects of fitness centers is crucial, as the industry plays a vital role in promoting public health and contributing to economic development [13]. Establishing benchmarks and quality standards is necessary to ensure that fitness facilities effectively meet the needs of users and help individuals achieve their health-related goals in a safe and efficient manner [14].

In Punjab, where urbanization exists along with strong rural traditions, noticeable differences may exist in the availability, quality, and utilization of fitness infrastructure. Understanding these rural–urban disparities is essential for developing inclusive and equitable fitness opportunities. A study by Rajneesh Rattan and S.K. Verma, has provided initial insights into the status of health clubs in the region. Investigating further, the present study aims to carry out a comparative evaluation of the infrastructural and functional characteristics of health and fitness clubs located in rural and urban areas of Punjab. The purpose of the study is to explore the relationship between infrastructure and fitness culture, identify existing gaps, and contribute towards setting of standards and formulate policies that can enhance the overall quality and accessibility of fitness services across the state of Punjab.

2. METHODOLOGY

The present study was conducted in two distinct phases. In the first phase, infrastructural information was collected from various gyms and health clubs, while in the second phase functional information was collected from clients or gym-going members. Two specifically designed proformas, namely the Infrastructural Proforma and the Functional Proforma. were used to collect the information. Four categories of gyms were included in the study namely commercial, cooperative, community, and clinical gyms. The facilities were chosen in such a way that they varied across different geographical settings, including rural areas, small towns, and large cities across selected districts of Punjab. The Infrastructural Proforma comprised of two main sections. The first section recorded

general information, including the name of the gym, its location, name of the owner, type of gym, number of members, and their age distribution. The second section had four sub-sections, which documented details related to the available space, facilities, equipment, and staff employed in the gym.

The study was carried out in four major districts of Punjab, namely Patiala, Ludhiana, Jalandhar, and Amritsar. Approximately 50 gyms from each district were selected randomly sampling, ensuring representation from rural areas, towns, and metropolitan regions. In total, around 210 gyms were surveyed, and data was collected from approximately 1100 clients associated with these facilities.

3. RESULTS AND DISCUSSION

The analysis of data related to infrastructural facilities and fitness culture across rural and urban areas of Punjab was carried out. The findings have been organized to highlight differences in availability, accessibility, and quality of health clubs, as well as variations in participation patterns and professional support systems.

3.1 Distribution of Health Clubs Across Rural and Urban Areas

A total of 210 health clubs were surveyed in the selected districts of Punjab. The distribution of these health clubs reveals a strong urban concentration, with approximately 90% located in major cities, 7% in towns, and only 3% in rural areas (Table 1and Fig. 1). This uneven distribution clearly indicates that access to organized fitness infrastructure is largely limited to urban regions. Rural areas, in contrast, have very limited availability of structured fitness facilities, which may negatively influence the development of fitness culture among rural populations. In terms of type, the majority of health clubs (94%) were commercial in nature, whereas cooperative, community, and clinical gyms accounted for only a small proportion. Notably, these non-commercial types were found exclusively in urban areas and were completely absent in rural regions. This suggests that rural fitness infrastructure is not only limited in number but also lacks diversity in facility types.

Table 1: Location and types of health clubs

Location	Number of Gyms	Types of Gym	Number of Gyms
Big cities	189	Commercial	176
		Cooperative	06
		Community	04
		Clinical	03
Towns	14	Commercial	14
		Cooperative	-
		Community	-
		Clinical	-
Rural	07	Commercial	7
		Cooperative	-
		Community	-
		Clinical	-

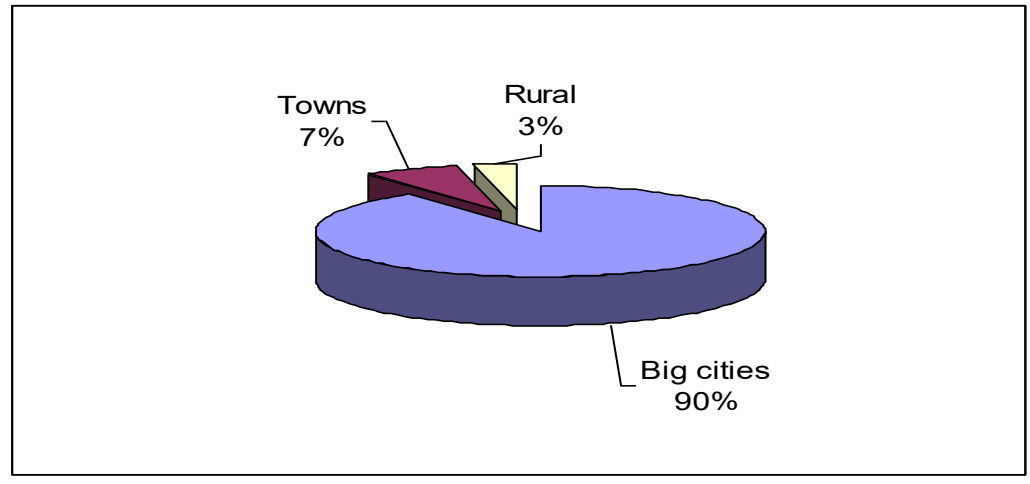

Fig.1: Location of various health clubs

3.2 Infrastructure and Spatial Differences

The average size of a health club was found to be approximately 1900 square feet. However, the available space between equipment (4 sq. ft.) and per individual (4.5 sq. ft.) was relatively inadequate across most facilities. Urban gyms, although more numerous, often face space constraints due to high membership density. In rural areas, although crowding may be less, the overall infrastructure is minimal and often lacks proper planning and standardization. The findings indicate that both rural and urban gyms face infrastructural challenges, albeit of different types—urban gyms suffer from overcrowding, while rural gyms suffer from insufficient development.

3.2 Availability of Equipment and Facilities

The percentage of various types of equipments and various types of facilities offered by these health clubs are shown in Fig. 3 and Fig. 4 respectively. Based on the results obtained, it can be said that most health clubs, mainly those located in urban areas, possessed basic fitness equipment such as mechanical resistance equipment, free weights, and cardiovascular machines along with exercise mats and music systems which were also commonly available. However, the advanced and specialized equipment, such as balance training devices and boxing equipment, was visibly lacking across both rural and urban gyms. From this it can be inferred that there is a limited scope for diverse training practices. As expected, urban gyms were relatively better equipped with facilities compared to rural ones. However, even these gyms/health clubs lacked wide-ranging services such as sports medicine clinics, rehabilitation facilities, childcare areas, and counselling services in majority of the cases. This points towards a narrow and incomplete understanding of the concept of fitness which seemed to be focussed on mainly weight loss and body-building rather than focussing on holistic health and wellness.

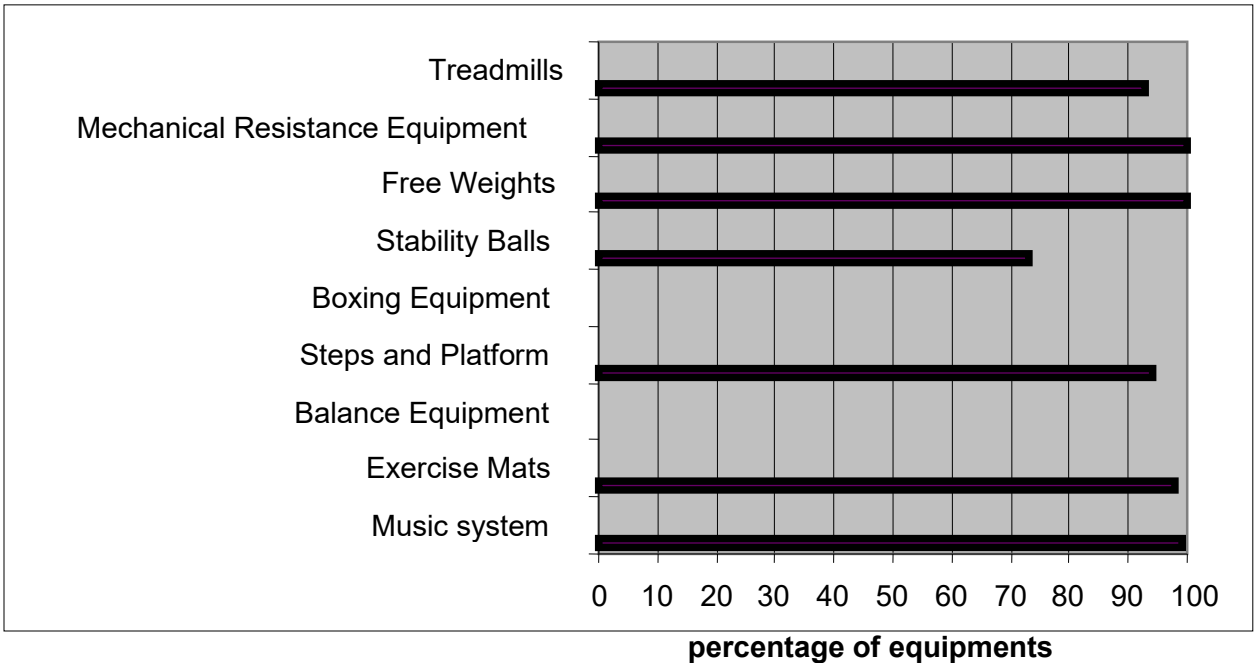

Fig.3: Equipments available to members of various health clubs

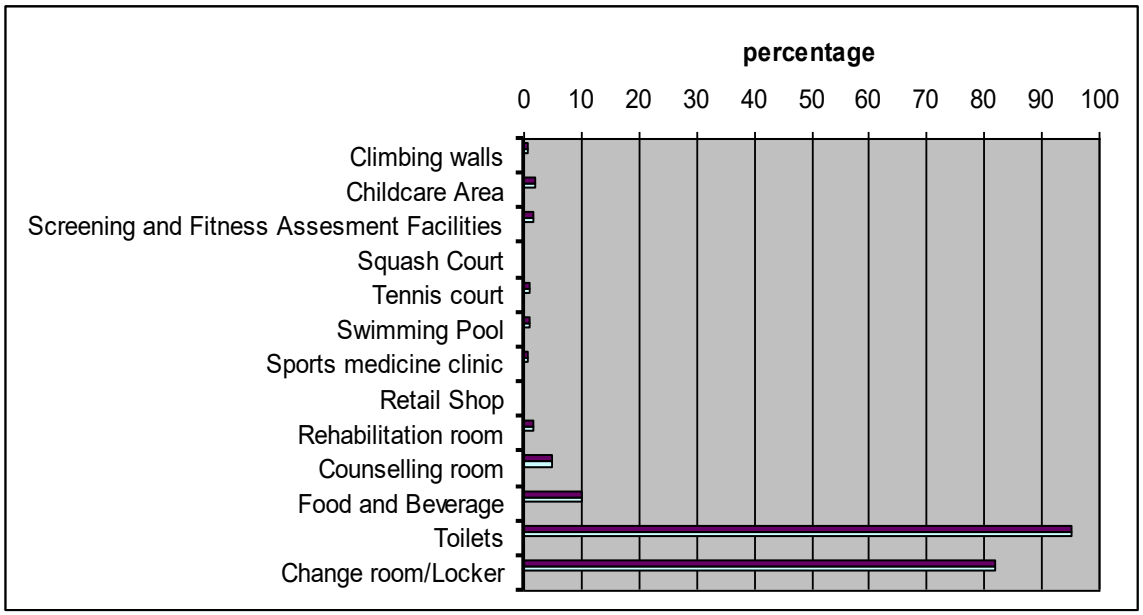

Fig.4: Facilities offered to members of various health clubs

3.3 Fitness Trainers and Professional Support

Information was collected from about 840 trainers who were employed across these health clubs. The details of various qualifications possessed by these fitness trainers are provided in Table 2. As we can see, the number of male trainers (630) was significantly higher than female trainers (210) which represent a high gender imbalance. Each gym was found to have four trainers on an average. However, there was wide difference in the availability and quality of trainers in rural and urban areas. While urban gyms generally had a higher number of trainers, there were either very few trainers or no trainer at all in rural gyms. With regards to professional qualifications of these trainers, only 4.5% were found to possess formal education or certification in physical education or fitness training. The percentage of trainers who were qualified in first aid was determined to be only 0.5%, highlighting serious safety gaps in safety preparedness. The data highlights the critical issue of lack of trained professionals in the fitness industry which directly affects the quality of guidance and safety of the people visiting these health centres.

Table 2: Qualifications of Fitness Trainers

Qualification of Physical Trainer	Male Physical Trainer	Female Physical Trainer	Total
Graduation	05	15	20
B.P.E	03	-	03
B.P.Ed	07	03	10
M.P.Ed	10	05	15
M.Sc. Sports Sciences	-	-	-
Diploma in sports coaching	-	-	-
Diploma in Yoga	03	02	05
Diploma in fitness training	05	-	05

3.4 Fitness Culture and Participation Patterns

The average membership per gym was approximately 97, with a significant gender disparity (71 males and 26 females) (Fig. 5). This suggests a higher male participation in fitness activities than female participation. Urban areas showed relatively higher participation rates due to better availability of facilities and greater awareness about fitness. In contrast, rural areas exhibited lower participation, which may be attributed to lack of infrastructure, limited awareness, and socio-cultural barriers. The findings suggest that fitness culture in Punjab is still evolving and is more developed in urban areas compared to rural regions.

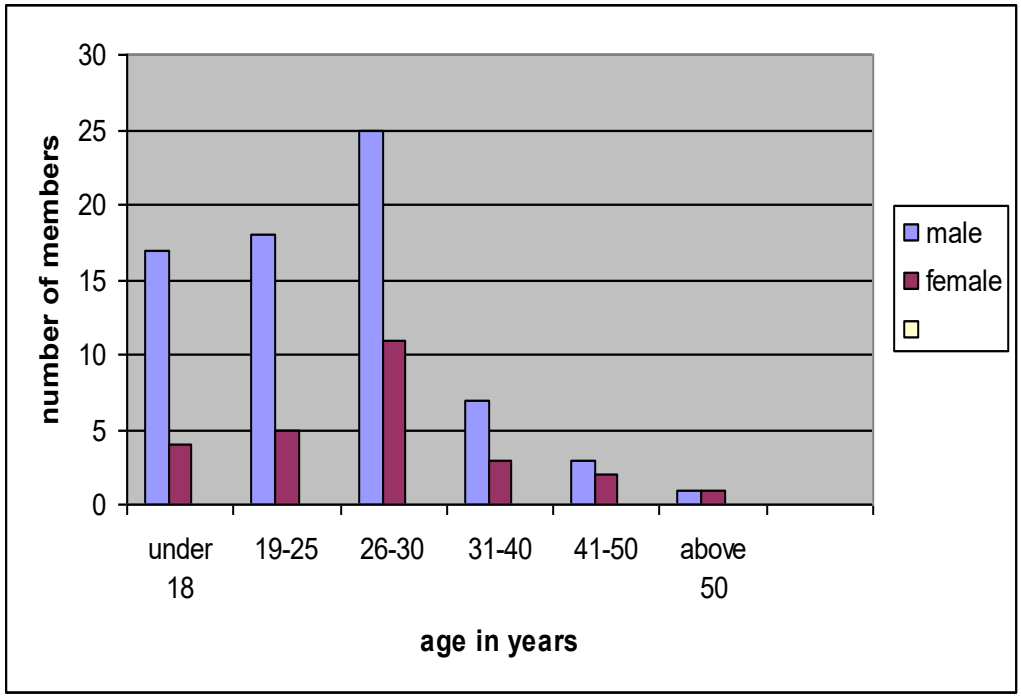

Fig.5: Distribution of age of male and female clients

3.5 Discussion

The findings of the present study reveal pronounced rural–urban disparities in the availability, quality, and accessibility of fitness infrastructure in Punjab. The number and variety of health clubs was clearly higher in urban areas mainly due to higher demand, better paying abilities, and greater awareness about health and fitness. However, the urban health centres also had many limitations, such as congested space, overcrowding, and lack of advanced equipment and diverse wellness programmes. Thus access was higher in urban regions, but the quality of facilities and services is still not upto the mark and require significant improvement.

In contrast to urban areas, the fitness facilities in rural areas were severely lacking. The very low number of health centres along with near absence of trained professionals indicates very limited opportunities for structured health and fitness activities. Not only the rural infrastructure was deficient but other factors such as less awareness regarding health and fitness, economic constraints, and cultural concerns discourage participation in health and fitness centres. Also, the cooperative and community-based gyms were nearly missing in rural regions adding to the problem and limiting affordable fitness options. The fitness market is mainly driven by commercial gyms which form the largest chunk of the fitness industry in urban and rural areas. Though these commercial gyms contribute towards enhancing availability of services, they are largely profit driven and may compromise on service quality, charge higher membership costs, and limit accessibility of health and fitness services for economically weaker sections. The near lack of community or cooperative gyms further reduces the equitable distribution of fitness resources.

Another critical issue which demands attention is the shortage of qualified and certified fitness trainers and instructors. As inferred from this study, percentage of certified trainers and first-aid-trained staff is alarmingly low raising concerns about safety, effective guidance, and professional approach within fitness centers. Also there is near absence of regulatory frameworks governing the fitness sector. The study also highlights gender based divide, with very low female

participation as compared to males. Addressing all these concerns is essential for promoting an inclusive and healthy fitness culture.

Furthermore, the concept of fitness in Punjab is mainly limited to weight loss and body building as evident from the scarce availability of comprehensive facilities such as rehabilitation centers, sports medicine support, and counseling services. The broader and holistic concept of health and fitness, which encompasses physical, mental, and preventive health aspects, is still underdeveloped. Overall, it can be said that though the fitness industry in Punjab is growing, it lacks holistic and inclusive development and is well behind the professional standards. Establishing quality infrastructure, improving access to fitness facilities, bridging the rural–urban gap, and promoting holistic understanding of fitness are essential for the sustainable development of fitness culture in the region.

4. CONCLUSION

The study shows that fitness facilities and culture in Punjab are mostly focused in cities, while rural areas still lack proper access and resources. Most fitness options are commercial gyms, but overall infrastructure is limited, there aren't enough trained professionals, and female participation is quite low. All of this suggests that the fitness system is still developing. To improve the situation, there is a need for better facilities, properly trained professionals, and more inclusive opportunities so that both rural and urban areas can grow equally and support a healthier lifestyle for everyone.

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