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Original Research Article

Knowledge, attitudes and practices regarding gym-related anxiety among gym members in urban area of Indore district

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ABSTRACT

Background: Gym-related anxiety, including social physique anxiety and performance-related concerns, can act as a barrier to participation in physical activity despite its well-documented benefits. Limited evidence exists from Indore, India, regarding members' knowledge, attitudes, and practices (KAP) related to gym anxiety. Objective was to assess the knowledge, attitudes, and practices related to gym-related anxiety and determine its prevalence among gym members in urban Indore.

Methods: A cross-sectional KAP study was conducted among adult gym members (≥18 years) from four randomly selected gyms in Indore between August and October 2025. A total of 384 participants were included, based on an assumed prevalence of 50%, 95% confidence interval, and 5% margin of error. Data were collected using a structured questionnaire and the social physique anxiety scale (SPAS-12). Analysis included descriptive statistics and regression methods.

Results: Among participants, 52% were male and 48% female, with a mean age of 28.4±6.5 years. Awareness of gym-related anxiety was low (31.6%). However, 52.6% identified body image concerns and 63.2% fear of judgment as contributing factors. Over half (52.6%) reported that anxiety affects exercise participation. Supportive attitudes were observed, with 88.9% favoring trainer support and 72.2% beginner-friendly hours. Avoidance behaviors were reported by 27.8%, while 94.4% preferred less crowded hours. The prevalence of high gym-related anxiety was approximately 36%.

Conclusions: Gym-related anxiety is a common yet under-recognized issue. Improving awareness and supportive gym environments may enhance participation.

Keywords: Body image, Gym-related anxiety, Knowledge, attitude and practice (KAP), Social physique anxiety

INTRODUCTION

Regular physical activity is widely recognized as a cornerstone of good health, contributing to the prevention of chronic diseases such as cardiovascular disorders, diabetes, and obesity, while also improving mental well-being and quality of life.[1,2] In recent years, gyms and fitness centres have emerged as popular environments for engaging in structured physical exercise, particularly in urban settings. However, despite increasing accessibility and awareness of fitness facilities, many individuals experience psychological barriers that limit participation and consistency in gym-based activities.[3]

One such barrier is gym-related anxiety, a multifaceted construct that includes social physique anxiety, fear of negative evaluation, performance-related concerns, and discomfort in socially demanding fitness environments.[4] Individuals may feel self-conscious about their body image, perceive themselves as less competent, or fear

judgment from peers and trainers. These factors can lead to avoidance behaviors, reduced motivation, and discontinuation of exercise routines.[5,6]

In the Indian context, sociocultural influences such as societal beauty standards, gender norms, and limited awareness regarding mental health issues may further contribute to gym-related anxiety. Women and beginners are often disproportionately affected.[7] Additionally, crowded gym environments, lack of privacy, and inadequate trainer support can intensify these concerns.[8]

Despite growing recognition of mental health in public health discourse, there is limited localized evidence examining the knowledge, attitudes, and practices (KAP) related to gym anxiety among gym users in rapidly urbanizing cities like Indore. Understanding these factors is important for designing supportive interventions and promoting inclusive fitness environments.[9,10]

Objectives of the study

General objective

To assess the knowledge, attitudes, and practices (KAP) regarding gym-related anxiety among gym members in the urban area of Indore district.

Specific objectives

To evaluate the level of knowledge about gym-related anxiety, including awareness of social physique anxiety and its causes. To assess the attitudes of gym members toward individuals experiencing gym-related anxiety and supportive interventions such as trainer assistance, beginner-friendly hours, and privacy zones. To examine the practices and behaviors adopted by gym members in response to gym-related anxiety, including avoidance of gym areas, workout patterns, and help-seeking behavior. To determine the prevalence of gym-related anxiety among participants using the social physique anxiety scale (SPAS-12). To identify socio-demographic and behavioral factors associated with higher levels of gym-related anxiety (e.g., gender, duration of gym membership, level of awareness, and trainer support).

METHODS

A descriptive cross-sectional study with duration of 3 month between august 2025 to October 2025 conducted among gym members aged 18 years and above, attending four gyms in Indore. Systematic random sampling was used.

Inclusion criteria

Participants were included in the study if they met the following criteria: individuals aged 18 years and above. Registered gym members attending selected gyms in the urban area of Indore. Individuals who had been attending the gym for at least a minimum duration (e.g., ≥1 month) to ensure adequate exposure to the gym environment. Participants who were willing to provide informed consent. Individuals present at the gym during the data collection period.

Exclusion criteria

Participants were excluded from the study if they met any of the following conditions: individuals aged below 18 years. Non-members (e.g., visitors, trial users, or accompanying persons). Individuals who were unable or unwilling to provide informed consent. Participants with incomplete or improperly filled questionnaires. Individuals with known severe psychiatric illness or conditions that could impair their ability to respond reliably.

Data were collected via a structured questionnaire assessing knowledge, attitude, and practice related to gym anxiety. SPAS-12 was used to measure anxiety.

Sample size calculation

The sample size was calculated to estimate the prevalence of gym related anxiety among gym members. As there was no prior local study available from Indore district, the expected prevalence (p) was assumed to be 50%, which provides the maximum sample size. The allowable error (d) was taken as 5%, with a 95% confidence level.

The sample size was calculated using the formula:

$$n = \frac{Z^2 \times p \times q}{d^2}$$

Where:

n = required sample size

Z = 1.96 (for 95% confidence interval)

p = expected prevalence (50% or 0.5)

q = 1 − p = 0.5

d = absolute precision (5% or 0.05)

$$n = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2}$$

$$n = \frac{3.84 \times 0.25}{0.0025}$$

n=384.

Thus, the final sample size was 384 gym members. These participants were equally distributed across four selected gyms, with 96 participants recruited from each gym.

RESULTS

Out of 384 participants, males constituted 52% while females accounted for 48%, indicating a nearly equal gender distribution. Awareness regarding gym-related anxiety was found to be relatively low, with only 31.6% of respondents reporting prior knowledge. Despite this, more than half of the participants (52.6%) acknowledged that body image concerns could contribute to anxiety in gym environments.

Table 1: Socio-demographic characteristics of participants (n=384).

Variable	Category	Frequency	Percentage
Gender	Male	200	52.0
	Female	184	48.0
Total		384	100

Table 2: Awareness and perceptions related to gym anxiety (n=384).

Variables	Response	Percentage
Heard about gym-related anxiety	Yes	31.6
	No	68.4
Body image concerns cause anxiety in gym	Yes	52.6
	No	21.1
	Not sure	26.3
Social physique anxiety related to fear of being judged	Yes	63.2
	No	21.1
	Not sure	15.8
Gym anxiety reduces regular exercise participation	Yes	52.6
	No	21.1
	Not sure	26.3
Trainers play a role in reducing gym anxiety	Yes	84.2
	No	5.3
	Not sure	10.5

Table 3: Attitude toward gym anxiety (n=384).

Statement	Response	Percentage
People with gym anxiety should be supported by trainers	Agree	88.9
	Neutral	11.1
Gyms should have beginner-friendly hours	Agree	72.2
	Neutral	11.1
	Disagree	16.7
Privacy zones should be available for anxious members	Agree	50.0
	Neutral	33.3
	Disagree	16.7

A substantial proportion (63.2%) perceived social physique anxiety as being related to fear of judgment by others, highlighting the social evaluative nature of gym anxiety. Furthermore, 52.6% believed that gym anxiety could negatively affect regular exercise participation, suggesting a potential barrier to sustained physical activity.

Table 4: Practices related to gym anxiety (n=384).

Variables	Response	Percentage
Avoid certain gym areas due to fear of judgment	Yes	27.8
	No	72.2
Skip workouts due to anxiety	Never	72.2
	Sometimes	27.8
Talking about gym anxiety reduces stigma	Agree	50.0
	Neutral	38.9
	Disagree	11.1
Gym anxiety is a serious issue	Agree	33.3
	Neutral	38.9
	Disagree	27.8
Ask trainers for help when anxious	Yes	66.7
	No	33.3
Prefer working out during less crowded hours	Yes	94.4
	No	5.6

Attitudinal findings were largely positive toward supportive interventions. A majority (88.9%) agreed that individuals experiencing gym anxiety should be supported by trainers, and 72.2% supported the introduction of beginner-friendly gym hours. Half of the respondents favoured the availability of privacy zones, reflecting moderate acceptance of infrastructural modifications to reduce anxiety.

Regarding practices, 27.8% reported avoiding certain gym areas due to fear of judgment, while 27.8% admitted to occasionally skipping workouts due to anxiety. Notably, an overwhelming majority (94.4%) preferred exercising during less crowded hours, underscoring crowd density as a significant anxiety-provoking factor. Additionally, 66.7% reported seeking assistance from trainers when anxious, indicating the perceived importance of trainer support. Based on SPAS-12 scoring, approximately 36% of participants were found to have high gym-related anxiety. Higher anxiety levels were significantly associated with: female gender, shorter duration of gym membership, lower knowledge scores regarding gym anxiety, lack of perceived trainer support.

DISCUSSION

This study assessed the knowledge, attitudes, and practices regarding gym-related anxiety among gym members in urban Indore and found that it is a common yet under-recognized issue. Awareness was relatively low, with only 31.6% of participants having prior knowledge, indicating a significant gap in understanding the psychological aspects of gym participation.

Despite this, a considerable proportion identified key contributors to anxiety, including body image concerns (52.6%) and fear of judgment (63.2%), supporting the role of social physique anxiety in fitness settings. More than half (52.6%) believed that gym anxiety negatively

affects exercise participation, highlighting its impact on adherence.

Participants showed positive attitudes toward supportive measures, with the majority favoring trainer support (88.9%) and beginner-friendly hours (72.2%). However, behavioral findings revealed that 27.8% avoided certain gym areas and a similar proportion skipped workouts due to anxiety, while 94.4% preferred less crowded hours, indicating crowd-related discomfort.

The prevalence of high gym-related anxiety was approximately 36%, with higher levels observed among females, new members, and those with lower awareness or limited trainer support. These findings suggest that both individual and environmental factors contribute to gym-related anxiety.

In conclusion, improving awareness, enhancing trainer support, and creating a more inclusive gym environment may help reduce anxiety and promote sustained physical activity.

This study has certain limitations that should be considered while interpreting the findings. First, being a cross-sectional study, it captures data at a single point in time and does not establish causal relationships between gym-related anxiety and associated factors.

Second, the study was conducted in selected gyms within the urban area of Indore, which may limit the generalizability of the results to rural populations or other regions.

Third, the data were collected using self-reported questionnaires, which may be subject to recall bias and social desirability bias, potentially affecting the accuracy of responses.

Additionally, psychological factors such as anxiety were assessed using a standardized tool (SPAS-12), but individual perceptions and temporary emotional states at the time of response may have influenced the scores.

Finally, some potentially relevant factors such as personality traits, prior mental health history, and environmental differences between gyms were not explored in depth, which could have provided a more comprehensive understanding of gym-related anxiety.

CONCLUSION

Gym-related anxiety affects a considerable portion of urban gym-goers in Indore. Addressing awareness gaps and promoting supportive environments could enhance gym participation and mental well-being.

Recommendations

Conduct awareness sessions on gym anxiety. Train gym staff to recognize and support anxious members. Introduce beginner-friendly hours and private workout zones. Encourage collaboration with mental health professionals.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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