



Effectiveness of Women-Only Gyms in Increasing Women's Exercise Participation: A Systematic Review

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Abstract

Women's participation in physical activities at the gym is still limited by gender inequality, body stereotypes, and social and psychological barriers, especially in mixed gym environments. This study aims to synthesize scientific evidence on the role of women-only gyms in increasing women's participation in physical exercise through a Systematic Literature Review. Literature searches were conducted on Scopus with empirical studies selected following the PRISMA 2020 guidelines. A narrative synthesis was used due to the heterogeneity of research designs and participation indicators. The review results show that body image pressure, objectification, appearance anxiety, and issues of access and cost are major barriers to women's participation, while women-only gyms have the potential to provide a safer, more supportive environment and increase motivation and social support. It was concluded that women-only gyms are a promising environmental strategy to increase women's exercise participation, although their effectiveness depends on cultural context and program design and requires longitudinal evidence support.

How to Cite

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INTRODUCTION

The gym environment, which encompasses physical, social, and organizational dimensions, significantly influences women's experiences, participation, and outcomes of physical activity, while also reflecting the ongoing dynamics of gender inequality in sports spaces (Amini et al., 2023; Graham et al., 2025; Parsons et al., 2025). Although gyms are often positioned as inclusive spaces, various studies show that women still face structural barriers in the form of safety issues, harassment, appearance-based social norms, and facility designs that are not responsive to women's physiological needs (Amini et al., 2023; Parsons et al., 2025).

As the volume and diversity of interdisciplinary research on women's experiences in gym environments increases, Systematic Literature Review (SLR) has become an essential approach for synthesizing scientific evidence, identifying patterns of findings, and revealing research gaps that have not been adequately addressed (dos Santos et al., 2024; Graham et al., 2025). SLR enables the integration of perspectives from sports science, psychology, architecture, and gender studies, while highlighting the limitations of applying feminist and intersectional frameworks in fitness environment studies (Nagorna et al., 2025; Nunes Viana et al., 2024).

SLR findings consistently show that gym space design, organizational practices, and social norms contribute to the reproduction of gender inequality, which negatively impacts women's comfort, well-being, and sustained participation (Amini et al., 2023; Parsons et al., 2025). The feminist and intersectional theoretical approach in SLR provides a more critical analytical framework for understanding power relations and the experiences of women with diverse identity backgrounds (Coen, 2021; Coen et al., 2020; Drake & Radford, 2022).

Methodologically, SLR in this field faces challenges in the form of study design heterogeneity, inconsistency in sex/gender analysis, and limited longitudinal data, although recent developments show that hybrid approaches based on artificial intelligence and human validation can improve the efficiency and accuracy of evidence synthesis (Gogovor et al., 2021; Hall & Noonan, 2023; Schulze et al., 2022). In addition, the integration of physiological analyses, such as menstrual cycles and thermoregulatory responses, further emphasizes the importance of a gender-based approach in evaluating the gym environment

(Jribi et al., 2025; Wenner & Stachenfeld, 2023).

In practice, SLR plays an important role in supporting the formulation of policies and the design of a more equitable gym environment through the application of an intersectional framework, universal design, a multisensory approach, and co-design methods that actively involve women (Hong et al., 2023; Kriger et al., 2022; Mitchell et al., 2025). Thus, SLR on female gym environment variables provides a crucial scientific foundation for the development of safe, inclusive, and sustainable fitness spaces that are responsive to women's physiological and social needs (Amini et al., 2023; Graham et al., 2025). This systematic literature review aims to synthesize and critically evaluate empirical evidence on key environmental variables within female gym settings that influence women's exercise participation and experiences. The novelty of this research lies in its integrative perspective, which systematically examines physiological, psychological, and socio-cultural dimensions of women-only gym environments, an approach that has not been comprehensively addressed in previous systematic reviews.

METHOD

This study employed a structured Systematic Literature Review (SLR) approach to identify, select, and synthesize scientific evidence on the effectiveness of women-only gyms in increasing women's physical exercise participation. The review was conducted in a comprehensive and transparent manner, following established methodological principles for systematic reviews (Harris et al., 2024) and adhering to the PRISMA 2020 guidelines to ensure reporting rigor and transparency (PRISMA 2020 statement, 2020).

The literature search was systematically designed by formulating clear research questions and developing a comprehensive keyword strategy, including terms such as "female gym participation," "women-only fitness settings," and "exercise engagement," to capture variations in terminology used across relevant studies (Fortnum et al., 2025). Searches were conducted in the Scopus database to ensure broad and representative coverage of international literature related to women-only gyms and exercise participation behavior (Tian et al., 2025). The search included peer-reviewed journal articles published between 1978 and 2025. A total of 550 records were initially identified through the database search process.

Eligibility criteria were established to in-

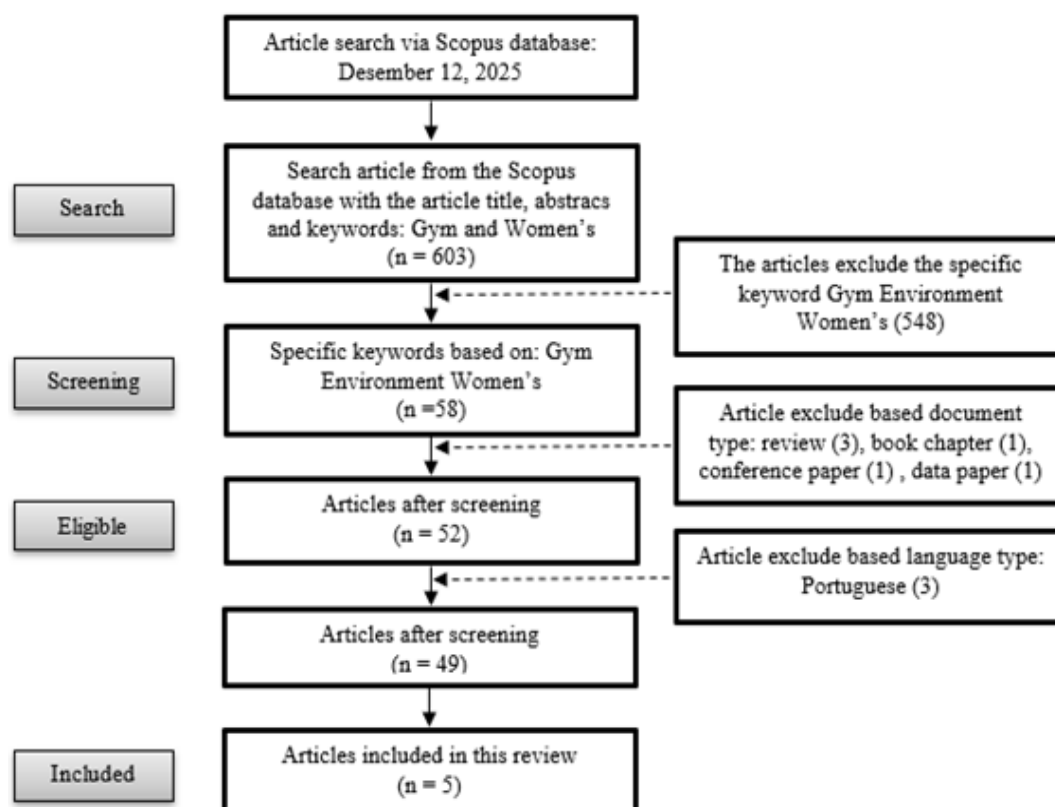


Figure 1. PRISMA Flow of Study Selection.

clude empirical studies with experimental, quasi-experimental, or observational designs that examined the influence of sports or fitness facilities on women's exercise participation. Non-empirical studies and studies not focused on female populations were excluded (Husain et al., 2024). The study selection process involved a two-stage screening procedure, consisting of title and abstract screening followed by full-text review, conducted independently by two researchers to ensure methodological and substantive relevance (Uyun et al., 2024).

Data extraction was performed using a standardized extraction sheet to collect key information, including participant characteristics, descriptions of interventions or women-only gym contexts, exercise participation measures, and principal findings of each study (Iqbal et al., 2025). Due to heterogeneity in study designs, participation indicators, and research contexts, the findings were synthesized narratively to identify patterns and key factors influencing women's engagement in exercise within women-only gym environments (Mino et al., 2023).

Finally, the methodological quality of included studies was assessed using appropriate appraisal tools to identify potential risks of bias and strengthen the reliability of the evidence prior to

final synthesis (Meliante et al., 2025). Through systematic, consistent, and transparent procedures, this review aims to provide robust evidence on the role of women-only gyms in promoting exercise participation and to highlight best practices as well as research gaps for future investigations (Harris et al., 2024).

RESULTS AND DISCUSSION

Various studies show **Table 1** that gyms are often perceived as arenas steeped in masculinity, so women often experience barriers to access and discomfort. Judgments about appearance and performance make them feel like they are competing for space especially in the weightlifting area and reinforce the need for safer training spaces for women (Coen et al., 2021; Cowley & Schneider, 2025; Turnock, 2021). In addition, aesthetic pressures and gender performativity also shape women's experiences at the gym, where teenagers and young women use the gym as a means of displaying a "healthy" body in line with feminine ideals. Expectations regarding the use of sports-wear that accentuates the body shape require extra preparation that is rarely experienced by men, so the focus tends to be more on aesthetics than health (Coen et al., 2021; Metcalfe, 2019).

Table 1. Characteristics and Main Findings of Studies Included in This Review

Title	Author	Year	Journal	Key Findings
Personality traits and preferred exercise environment of fitness club members.	(Jr et al., 2020)	2020	Acta Gymnica	This study involving 327 women found that general personality factors consisting of Conscientiousness, Extraversion, and Agreeableness predict exercise environment preferences at fitness clubs, where these traits are related to enjoyment of new/repeated exercises and the social aspects of exercise, suggesting that tailoring the exercise environment to personality can increase exercise adherence.
Gendered trends in young people's participation in active lifestyles: The need for a gender-neutral narrative	(Metcalf, 2019)	2020	European Physical Education Review	The gym environment for teenage girls is often seen as a space to display a body that appears 'healthy' according to feminine ideals emphasizing aesthetics over physical activity so that they internalize the demand to improve their body's 'shortcomings', making the gym a place to show their gender identity, or even just a hangout space. For some, gym membership is a status symbol towards an idealized feminine body.
"There's a difference between tolerance and acceptance": Exploring women's experiences of barriers to access in UK gyms	(Turnock, 2021)	2021	Wellbeing Space and Society	Gyms are often viewed as implicitly segregated "masculine spaces," with layouts and equipment tailored more to men's needs, forcing women to face male-dominated spaces, intimidating atmospheres, and experiences of surveillance, objectification, and pressure to conform to gender stereotypes ultimately making them feel like outsiders and hindering their training.
"Where is the space for continuum?" Gyms and the visceral 'stickiness' of binary gender	(Coen et al., 2021)	2021	Qualitative Research in Sport, Exercise and Health	The gym environment for women is shaped by gender expectations regarding clothing, appearance, and how the body is displayed, where 'workout gear' is considered to have to show off and emphasize body shape, thereby reinforcing narrow standards of femininity and requiring women to make extra preparations outside the gym unlike men, whose bodies are more readily accepted without such demands..
The use of outdoor gyms is associated with women and low-income people: a cross-sectional study	(Bergmann et al., 2021)	2021	Public Health	A study on the use of outdoor gyms (OGs) in a city in southern Brazil found that around 30% of the population uses them for physical activity, with women who are 1.93 times more likely to exercise ≥ 2 times/week and low-income individuals being the more dominant users. thus the installation of OGs in public spaces is seen as having the potential to reduce social inequality in leisure time physical activity.
Friendships forged in fitness: An ethnography of older women's social experiences at a community fitness center Alaska	(Howell et al., 2022)	2022	Journal of Anthropology	A study of older women (aged 50+) in water aerobics classes in Anchorage, Alaska, shows that friendships formed in fitness environments which are mostly attended by women, especially middle-class white women, and often started on the recommendation of friends provide social support that strengthens adherence to exercise programs and improves physical, mental, and social health, thus playing an important role in supporting healthy aging.
Working Out in Sunlight Happiness Gym: Fitness, Well-Being, and Temporal Rhythms in the Contemporary Tibetan City	(Kukuczka, 2023)	2023	Himalaya	The gym environment for women, as experienced by Yangkyi and Tselha, is a familiar and relaxed social space where they build friendships, take body pump, yoga, and dance classes, chat casually in the locker room or juice bar, and continue exercising for hours, including joining their male friends after class for independent training. Thus, the gym becomes a mixed community space that supports their routines and interactions.
Presentation of self and impression management among physically active women	(Kolić et al., 2023)	2023	Journal of Applied Sport Psychology	The gym environment becomes a social space where women manage their self-image in relation to menstruation from concerns about leakage that affect clothing choices and the need to bring a change of clothes, to the development of solidarity among women but there is still an awkwardness around men, so they tend to avoid discussing menstruation with male trainers or gym members.
A cross-sectional study on the perceived barriers to physical exercise among women in Iraqi Kurdistan Region	(Shabu et al., 2023)	2023	BMC Women's Health	This study shows that limited access to gyms or sports facilities, high membership fees of at least USD 100 per month in Erbil, and a lack of women-only spaces or facilities are major barriers for women including Muslim women to participate in physical activity.
"I sometimes feel like I can't win!": An exploratory mixed-methods study of women's body image and experiences of exercising in gym settings	(Cowley & Schneider, 2025)	2025	Plos One	The gym environment for women is often characterized by feelings of being judged on their appearance and performance, where they must deal with feelings of inadequacy, compete for space, struggle to be taken seriously, and face harassment or unwanted comments from men. As a result, gyms that are still dominated by conventional masculinity norms become a major obstacle, especially when women enter areas such as the weight room.

Menstruation issues add to the emotional burden of women at the gym, mainly due to concerns about leakage affecting clothing choices, the need to bring a change of clothes, and restrictions on talking about menstruation in front of men. These factors create a more complex self-presentation practice for women than for men (Kolić et al., 2023). However, gyms can also be positive social spaces. Friendships formed in group classes such as body pump, yoga, or dance provide social support that reinforces exercise adherence, especially among older women who are highly dependent on social support to maintain their physical activity routines (Howell et al., 2022; Kukuczka, 2023).

In addition to social dynamics, personality factors also influence exercise environment preferences. Traits such as conscientiousness, extraversion, and agreeableness have been shown to be related to preferences for certain types of exercise and social aspects of the gym, so adjusting the environment based on personality profiles can increase member engagement (Jr et al., 2020). Other obstacles often faced by women include limited physical access, high membership fees, and a lack of women-only spaces, as seen in Erbil, where Muslim women find it difficult to participate in gyms due to the absence of women-only spaces (Shabu et al., 2023). On the other hand, public facilities such as outdoor gyms (OGs) show great potential in increasing participation among women and low-income groups, while reducing inequality in access to physical activity (Bergmann et al., 2021).

Body image pressure, the risk of objectification, and the emergence of extreme behaviors such as PIEDs use indicate that an uncontrolled gym environment can reinforce practices that are harmful to women (Cowley & Schneider, 2025). Therefore, women-only gyms have the potential to be an effective solution to reduce feelings of being watched, anxiety related to appearance or menstruation, and provide a more inclusive space for various forms of participation. These women-only spaces also support the growth of solidarity and social support, which has been proven to increase exercise compliance, while enabling program design and communication that is more responsive to women's needs (Howell et al., 2022; Jr et al., 2020; Kolić et al., 2023; Turnock, 2021).

However, the effectiveness of women-only gyms is not universal because it is greatly influenced by the local cultural, economic, and gender context. In some areas, gyms can serve as symbols of status or social capital, so membership does not always reflect a meaningful increase in

physical activity (Bergmann et al., 2021; Metcalfe, 2019; Shabu et al., 2023). Given the heterogeneity of methods and geographical contexts in the available studies, generalizations of findings should be made with caution. Further research, particularly longitudinal quantitative studies, is needed to evaluate the impact of women-only gyms on the frequency and duration of physical activity, exercise adherence, and women's psychosocial well-being more comprehensively (Cowley & Schneider, 2025; Shabu et al., 2023).

CONCLUSION

Based on a review of the literature, women-only gyms have significant potential to increase women's participation in exercise by reducing social, cultural, and environmental barriers, such as feeling watched, objectification, pressure to look good, concerns about menstruation, and physical and financial barriers. Women-only spaces also foster solidarity and social support that strengthen exercise adherence, and allow for program and layout adjustments that are more sensitive to women's needs. However, their effectiveness is highly dependent on the local cultural, economic, and gender context, as well as program design and facility affordability. Therefore, further quantitative evaluation is needed to measure the impact of women-only gyms on frequency, duration, exercise adherence, and women's psychosocial well-being more comprehensively.

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