

Women's Participation in Physical Education Under NEP-2020: A Systematic Review of Evidence from Indian Higher Education (2020–2025) with Implications for Madhya Pradesh

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ABSTRACT

Background: NEP-2020 repositions Physical Education (PE) as part of multidisciplinary higher education that might also widen collegiate PE access for women. This review synthesises evidence from 2020–2025 on women's participation in PE in India, with special emphasis on implications for Madhya Pradesh.

Methods: A focused literature search was carried out using Google Scholar, Scopus, PubMed, ERIC, and ResearchGate. It covered publications on women/female college students and PE, sports participation, or NEP-2020 policy impacts for the years 2020–2025. Eligible items included empirical studies, programme evaluations, and policy analyses reporting gender-disaggregated findings or discussing likely effects of NEP-2020.

Results: Recent literature (2020–2025) confirms that NEP-2020 has the potential for legitimising PE as a credit-bearing General Elective; however, there is very limited empirical evidence of actual increased female enrolment or sustained participation under NEP implementation. Surveys and reviews provide evidence of continued barriers—sociocultural norms, safety and reputation concerns, inadequate female-friendly infrastructure, and shortage of female PE faculty—to women's uptake of college physical education despite favourable policy intent. Small-scale surveys report mixed attitudes among female university students, showing both a growing interest in physical activity alongside body-image concerns and fear of social judgement. Policy briefs and rapid analyses point out opportunities such as role models, choice of multidisciplinary courses, and outreach at the institutional level, but underscore an imperative for state-level implementation studies and investment in infrastructure.

Conclusions: NEP-2020 provides a policy platform but not yet measurable change in women's participation in collegiate PE during the 2020–2025 period. For Madhya Pradesh, targeted state-specific evaluations and pilot interventions—such as women-only sections, infrastructure upgrades, female faculty hiring, and transition outreach—are recommended to convert policy intent into gains in participation.

Keywords: *Women's participation; Physical Education; NEP-2020; College girls; Gender inclusivity; General Elective PE; Madhya Pradesh; Higher education*

1. INTRODUCTION

Physical education and sport have long been internationally recognised as indispensable parts of education, contributing not only to physical health and fitness but also to psychosocial well-being, confidence building, social integration, and lifelong health habits. Yet, in many societies—including India—access to structured sports and PE is markedly gendered: female students and women often face systemic barriers rooted in sociocultural norms, institutional neglect, inadequate infrastructure, and lack of support from family or educational institutions.

Research has shown that girls and women often face restrictions based on social and cultural factors: existing gendered stereotypes of sports or physical activity as “male domains”; parental and community-level concerns related to safety, modesty, and reputation; and a lack of female-friendly sports infrastructure—for example, changing rooms, sanitary facilities, or women-only spaces. Additionally, educational pathways often fail to encourage women to study Physical Education as a serious academic or career option, thus reinforcing societal expectations that sports remain a recreational or extracurricular pursuit rather than an academic course of study for women (Bhargava, 2017).

A recent cross-cultural review focusing on the sports participation of female college students highlights psychological barriers—such as body-image concerns, fear of judgement, past negative experiences, and social anxiety—which combine with socio-cultural and environmental constraints in discouraging sustained involvement in sport and PE (Zhou & Liu, 2025a). These barriers are multidimensional: physiological (e.g., menstrual health or fitness fears), psychological, sociocultural, and environmental—making female participation at all levels a complex issue of gender, identity, and institutional structure (Zhou & Liu, 2025b).

Against this backdrop, NEP-2020 constitutes a significant turn in India’s higher education architecture. By embracing a more flexible, multidisciplinary model, it legitimises PE or sports-related courses as possible electives or General Elective (GE) options in colleges and universities. This could open new avenues for women’s participation in academic and sporting domains. Through this policy, PE is no longer just extracurricular; it can be made part of the formal academic curriculum, enabling students to choose and study it as an academic subject. This would, in principle, enable greater inclusivity, equal access, and recognition for PE among girls and women throughout India.

However, policy intent does not always translate into effective implementation on the ground, which often lags far behind policy promise, particularly in contexts where traditional gender norms, economic constraints, infrastructure limitations, and institutional inertia prevail. As argued in recent studies, although an increasing number of women have accessed higher education in India over recent decades, the translation into equitable participation in physical education or sports remains uneven and limited (Pareek & Vertika, 2022a).

There is also a lack of systematic, empirical research that explicitly focuses on women or college-aged girls choosing PE as an elective under NEP-2020, especially from states like Madhya Pradesh, which has a mix of rural, semi-urban, and urban populations and diversified socio-economic backgrounds. Those few studies that address female participation in sports usually focus on competitive sports or extracurricular activities rather than structured academic PE courses. For instance, research on women’s participation in competitive sports shows that socio-cultural, economic, and infrastructural barriers remain significant impediments at every level in India (D. A. Singh, 2024).

Given this complex interplay of social, cultural, institutional, and individual factors—and given the new opportunity structure provided by NEP-2020—there is an obvious need for a systematic review that focuses on women’s participation in physical education as a college elective or academic option in India, with

due attention to sub-national contexts such as Madhya Pradesh. Such a review can synthesise the existing empirical and qualitative evidence, draw attention to persistent barriers and potential facilitators, assess early evidence of changes propelled by NEP-2020, and identify knowledge gaps for future research and policy initiatives.

This review, through the systematic collation and critique of available studies from 2000 to 2025, aims to present a comprehensive understanding of the opportunities and constraints that shape women's academic and sporting engagement under India's evolving higher education framework, and to thereby inform policymakers, educators, and practitioners working toward gender-equitable sports and physical education.

2. OBJECTIVES OF THE STUDY

The present study attempts to:

- Synthesise empirical studies, reports, and analyses publicly available from 2020–2025 relevant to women's participation in PE or sports in Indian higher education, or within the youth/young adult domain.
- Explore reported barriers and facilitators of female participation in PE/sports within the policy context of post-NEP-2020.
- Assess early evidence, if any, of NEP-2020-driven shifts in participation, access, or institutional practices.
- Draw implications and recommendations specifically relevant to Madhya Pradesh.

3. METHODOLOGY

3.1 Research Design

A systematic review design was adopted to collate and critically examine the empirical and theoretical studies published from 2020 to 2025. This design allows for comprehensive integration of evidence across diverse contexts and methodologies.

3.2 Search Strategy

A multi-database search was performed covering the following academic sources: Google Scholar, Scopus, Web of Science, PubMed, ERIC, Shodhganga, and ResearchGate. Key search terms included: “women participation in PE,” “female college athletes India,” “gender and sports in higher education,” “barriers to women's physical education,” “NEP 2020 sports,” and “women in physical activity India.”

3.3 Inclusion Criteria

Studies were included if they:

- Focused on women or college-aged girls in India.
- Examined participation, barriers, facilitators, or policy influence related to physical education or sports.

- Were published between 2020 and 2025.
- Provided empirical data or substantial theoretical discussion.

3.4 Exclusion Criteria

Studies were excluded if they:

- Focused on school-level or professional sport rather than higher education.
- Did not provide gender-disaggregated information.
- Were commentaries, editorials, or opinion pieces devoid of academic evidence.
- Were duplicates or unavailable as full texts.

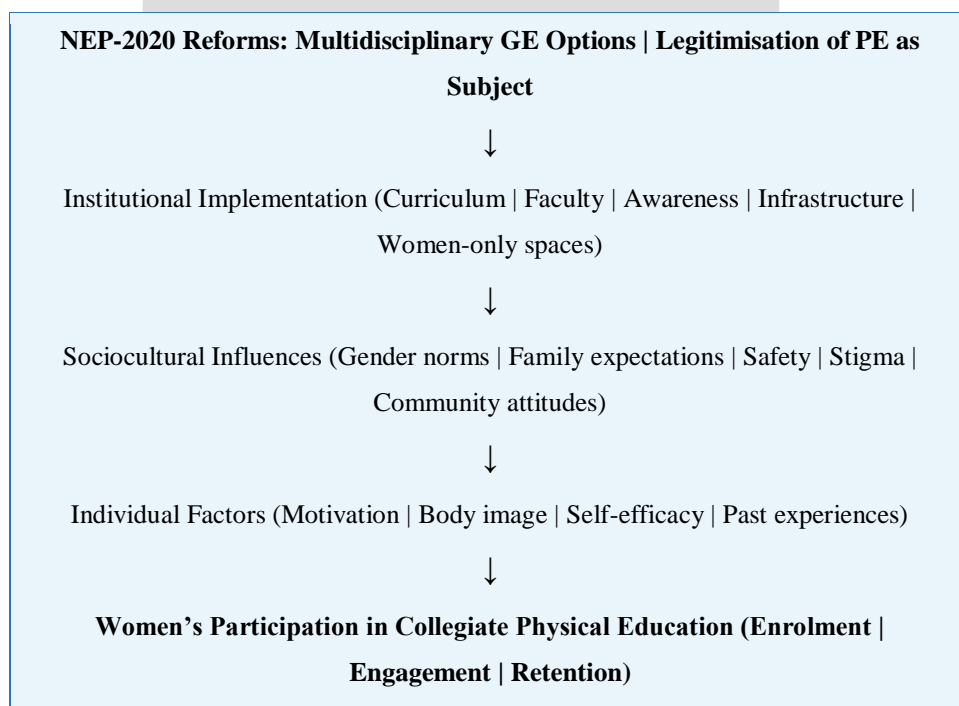
3.5 Data Extraction

A structured extraction sheet was completed capturing: author, year, and study location; target population; research design and sample characteristics; key findings on participation, barriers, and facilitators; and policy-related observations, especially regarding NEP-2020.

3.6 Data Analysis

Key findings relating to participation rates and trends, reported barriers and facilitators, and institutional or policy-level observations were extracted from each included source. No meta-analysis was performed due to high heterogeneity across study designs (qualitative interviews, surveys, narrative reviews, commentaries, and policy briefs); a narrative synthesis approach was adopted instead.

Figure 1: Conceptual Framework



4. RESULTS

Owing to the limited number of rigorous empirical studies directly measuring women's participation in collegiate PE post-NEP-2020 (2020–2025), the findings integrate policy context, wider research on gender and sports participation in India, institution- or practice-level analyses, and cross-cultural evidence. The emerging thematic findings are discussed below.

4.1 Policy and Institutional Context: NEP-2020 as Enabling but Under-Implemented

NEP-2020 legitimised PE, sports, yoga, and related disciplines as formal academic streams and elective choices in higher education, setting a framework distinct from the traditional model whereby PE is usually extracurricular or optional. This shift provides the policy foundation for institutions to offer PE as a credit-bearing course and to integrate sports and physical activity into mainstream curricula (Deshmukh, 2025).

However, recent reviews of higher education enrolment and participation suggest low uptake. One report summarising data from Indian higher education institutions in 2023 indicates that even where a structured PE curriculum exists, less than 10% of students actively participate in sports or fitness programmes, with female participation remaining considerably below that of males (Kumar, 2024).

Infrastructure and faculty deficits are commonly highlighted: many institutions have no specialist sport facilities, gymnasium, indoor courts, adequate changing rooms, or sanitation; few have specialist PE staff, and fewer still have female PE teachers or female-only classes (D. P. Singh, 2024). These structural limitations suggest that NEP-2020 is a necessary but insufficient condition for expanding women's participation; effective implementation requires resources, institutional commitment, and gender-sensitive planning.

4.2 Socio-Cultural and Psychological Barriers Impeding Female Participation

A recent qualitative study conducted in rural India (2024) identified various social and cultural barriers to girls' participation in sports at the school level—including deep-seated gender stereotypes, parental and community pressures, safety concerns, lack of female role models, inadequate facilities, and institutional neglect of girls' sports (Yadav, 2024). Although focused on school sports, these findings indicate wider societal attitudes likely to influence transition to college-level PE.

Wider discourses on female participation in competitive sport report ongoing impediments: entrenched social attitudes against women playing sports, economic burdens, limited post-competition career options, lack of institutional support, and gendered expectations of femininity and modesty (D. A. Singh, 2024). A recent mixed-methods study documents institutionalised gender disparities in co-educational PE classes: where PE is offered, female students often participate less due to perceived unfairness in mixed-gender settings, lack of gender sensitivity in pedagogy, and fear of judgement or harassment (Choudhary, 2022).

Psychological factors—including body-image concerns, fear of negative judgement, and social anxiety—prevent many female students from enrolling in PE or sports. Reviews and narrative analyses contend that such psychological barriers intersect with structural barriers in a way that persistently limits

participation (Rathee et al., 2023). The socio-cultural and psychological environment thus remains a formidable barrier, stronger than the mere availability of PE as a curricular option.

4.3 Facilitators and Enabling Practices: Emerging Strategies

The literature from 2020–2025 identifies several facilitators and good practices that, despite the challenges, can support a rise in female participation:

- **Gender-sensitive infrastructure and faculty:** Institutions that provide women-friendly facilities (separate changing rooms, women-only practice timings) and hire women instructors tend to report higher comfort and willingness to participate among female students (Kumar, 2024).
- **Awareness, sensitisation, and normative change:** Analyses highlight that creating awareness among parents, students, and communities is necessary to break stereotypes and challenge the perception of sports and PE as a male domain. When PE is framed as important for health, empowerment, and life skills, more girls express interest (Rathee et al., 2023).
- **Institutional formalisation of PE as an academic option:** Recognising PE as a valid academic course—not merely extracurricular—as enabled by NEP-2020 may legitimise participation for students otherwise deterred by social acceptance or future-prospects concerns. Formal integration of PE into curriculum with credits and regular classes provides a more structured and safer environment, signalling institutional commitment (Malik & Singh, 2025).
- **Policy advocacy and inclusive frameworks:** Recent policy discussion papers recommend gender-inclusive sports and PE policies within colleges, institutional investment in infrastructure, gender awareness training for staff, and the creation of safe, women-friendly sporting environments (Baidya & Baidya, 2023).

4.4 Evidence Gaps: Where Data Is Lacking, Especially for Madhya Pradesh

Several critical evidence gaps were identified. First, there is a scarcity of state-specific empirical studies: very few peer-reviewed studies (2020–2025) focus explicitly on state-level data such as that of Madhya Pradesh; most research is national, cross-state, or localised in particular institutions outside MP. Second, most reviewed studies are cross-sectional, qualitative, or narrative; there is a dearth of longitudinal studies tracking enrolment, retention, or participation trends over time, pre- and post-NEP-2020. Third, few studies have assessed how many colleges actually reorganised their curricula to include PE, hired female faculty, or created improved infrastructure. Fourth, the views of marginalised groups are underrepresented: few studies examine how caste, class, rural/urban divide, or socioeconomic status intersects with gender to impact women's involvement in PE—a serious omission given MP's socio-cultural diversity.

4.5 Implications: What the 2020–2025 Evidence Suggests for Madhya Pradesh

Based on the above synthesis, the early post-NEP-2020 period holds promise for greater female participation in PE. However, significant structural, cultural, and informational obstacles remain. For MP and similar states:

- PE as a General Elective holds genuine promise—provided institutions invest in gender-sensitive infrastructure, female faculty, and awareness outreach.
- Without concerted efforts, prevailing gender disparities are likely to persist; old norms and institutional inertia may override policy intent.
- Given the dearth of state-level data, there is an urgent need for state-level baseline assessments and pilot interventions to track enrolment, retention, satisfaction, and barriers over time before expecting large-scale shifts in participation.
- Researchers and policymakers must prioritise mixed-methods longitudinal studies to establish robust, context-specific evidence.

5. DISCUSSION

The literature from 2020–2025 presents a picture of both structural opportunity and persistent social constraint. On one hand, the structural legitimacy granted by NEP-2020 lowers one important barrier—the lack of formal academic recognition for PE. On the other hand, entrenched social norms, infrastructural deficits, and resource constraints dampen uptake among women. The complex interaction of barriers—socio-cultural, psychological, infrastructural, and institutional—will require more than policy change: it demands institutional will, resource allocation, gender-sensitive planning, community engagement, and sustained research.

Importantly, the facilitators observed include female-friendly infrastructure, female faculty, awareness, and institutional formalisation. If colleges in MP and elsewhere take these seriously—perhaps via pilot schemes, women-only PE groups, community sensitisation, and safe spaces—PE may emerge as a viable pathway for girls and women both academically and in terms of empowerment.

However, the marked absence of robust data makes any claims about the success or failure of NEP-2020 tentative. The gender gap in sports and PE participation is deeply embedded; dismantling it will likely be a slow, multi-pronged process involving structural reforms and social transformation. These findings are consistent with international evidence that policy alone is insufficient, and that implementing gender-equitable PE requires simultaneous attention to social norms, institutional infrastructure, role models, and community engagement (Zhou & Liu, 2025b).

6. CONCLUSION AND RECOMMENDATIONS

Although limited by robust empirical data, the period 2020–2025 indicates that NEP-2020 provides a structural opening for increased women’s participation in collegiate PE. Persistent social, infrastructural, and institutional barriers continue to inhibit broad uptake, however; without targeted efforts, policy intent may remain unfulfilled.

The following recommendations are offered for policy-makers, institutions, and researchers:

1. State-level baseline surveys and longitudinal studies to monitor enrolment, retention, attitudes, barriers, and facilitators over time, particularly in Madhya Pradesh.
2. Infrastructural improvements sensitive to the needs of girls and young women, including separate changing rooms, sanitation, safe practice spaces, and women-only sessions.
3. Active recruitment of female PE teachers and coaches, and structured mentorship and role-model programmes to build trust and comfort among female students.
4. Sensitisation and awareness campaigns among parents, students, and communities to challenge gender norms and promote PE as an academic avenue and avenue for girls' empowerment.
5. Institutional policies for curricula, admissions, and support structures aligned with the vision of NEP-2020, integrating PE as a legitimate discipline with flexibility, recognition, and support for female students.
6. Mixed-methods research combining quantitative participation data with qualitative narratives about lived experiences, constraints, and enablers.

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