



SPORTS PARTICIPATION AND SELF-CONCEPT AMONG TRIBAL ADOLESCENTS: A CONCEPTUAL REVIEW WITH REFERENCE TO KERALA

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Abstract

Adolescence represents a formative developmental phase in which participation in sports can significantly influence psychological growth and identity formation. Among tribal populations, structured sports engagement may function as a mechanism for empowerment, social inclusion, and self-development. Although Kerala demonstrates strong human development indicators, disparities persist among tribal communities in access to educational and sports infrastructure. This conceptual review synthesizes national and international literature examining the relationship between sports participation and self-concept among tribal adolescents, with particular reference to Kerala. Drawing upon multidimensional self-concept theory, achievement motivation theory, and socio-cultural perspectives on indigenous youth development, the paper analyses how physical activity participation contributes to physical, social, and emotional dimensions of self-concept. The review identifies critical research gaps, including limited region-specific empirical studies, inadequate integration of indigenous games within formal physical education, and insufficient gender-sensitive approaches. The paper concludes with policy and pedagogical implications for strengthening inclusive sports programs in tribal regions of Kerala.

Keywords: Tribal adolescents, sports participation, self-concept, physical education, indigenous youth, Kerala

Introduction

Sport is increasingly recognized not merely as a recreational activity but as a critical developmental tool that influences physical, psychological, and social well-being among adolescents. Participation in organized physical activity contributes to improved cardiovascular fitness, muscular strength, coordination, and flexibility, while simultaneously enhancing cognitive and socio-emotional outcomes such as self-discipline, emotional regulation, and interpersonal skills. During adolescence, a period marked by rapid physical, emotional, and cognitive growth, individuals experience significant transformations in identity formation and self-perception. Self-concept, defined as an individual's evaluation of their own abilities, personality, and social identity, is highly malleable during this period and is strongly shaped by experiences in sports and physical activities (Fernández Bustos et al., 2019; Onetti Onetti et al., 2019). Structured physical activity settings, such as school sports programs or community-based athletic initiatives, provide adolescents with opportunities for skill development, mastery experiences, goal-setting,

and constructive feedback. These experiences foster perceived competence, enhance peer acceptance, and contribute to positive emotional regulation, all of which play a central role in the development of self-concept.

The relationship between sports participation and self-concept among adolescents has been extensively documented in the broader literature. Peng and colleagues (2025) demonstrated that exercise motivation and social support serve as mediating mechanisms through which physical self-esteem influences sports participation, suggesting a bidirectional relationship between self-perception and engagement in physical activity. Similarly, Pulido et al. (2021) established that students' physical self-concept is significantly associated with their physical activity levels, with those possessing higher self-perceptions of physical competence demonstrating more consistent participation patterns. Longitudinal research further substantiates these associations, revealing that sport participation contributes to sustained self-esteem development throughout adolescence (Equinet, 2025). The explanatory mechanisms underlying this relationship involve the reinforcing cycle of skill mastery, peer recognition, and perceived competence, which collectively strengthen global self-concept (Benítez Sillero et al., 2024).

Physical self-concept, a domain-specific component of the multidimensional self-concept hierarchy, appears particularly responsive to sports engagement. Babic and colleagues (2014), in their systematic review, confirmed a consistent positive association between physical activity and physical self-concept among youth, emphasizing that perceived competence mediates this relationship. Grasaas (2025) further extended these findings by demonstrating that life satisfaction varies across sports disciplines, with team-based activities conferring additional psychosocial benefits through enhanced social connectedness. Lang et al. (2018) provided population-level evidence linking physical activity to improved psychosocial health outcomes in children, reinforcing the public health significance of promoting sports participation during developmental years. These findings collectively underscore that sports engagement is not merely a vehicle for physical fitness but a fundamental contributor to psychological well-being and identity formation.

In the context of India, and specifically Kerala, tribal communities represent one of the most socio-economically marginalized groups. Kerala has made remarkable progress in literacy, healthcare, and human development indices compared to other Indian states. However, tribal-dominated regions, such as Attappadi, continue to face structural and socio-economic disparities. Many tribal adolescents have limited access to educational facilities, adequate nutrition, healthcare, and organized sports infrastructure. The availability of trained physical education personnel, systematic talent identification programs, and organized sports competitions is often inconsistent or entirely absent in remote tribal settlements (Manitowabi, 2022). These gaps limit the opportunities for tribal youth to participate in structured physical activities that are critical for their holistic development. The unique socio-cultural environment of tribal communities, including traditional practices, indigenous games, and local livelihood patterns, also influences how adolescents engage in physical activity. For example, tribal adolescents often participate in labor-intensive activities or traditional games that develop endurance and agility, but these are rarely integrated into formal sports programs or recognized for talent development at district and state levels (Oja & Paksööt, 2025).

Existing research underscores the importance of sports participation in fostering self-concept among adolescents in general populations; however, empirical studies focusing on tribal youth remain scarce. Most studies in India either address urban or rural populations without distinguishing tribal subgroups, leaving a critical gap in understanding the psychological benefits and challenges specific to tribal adolescents. The exploration of this relationship in Kerala's tribal context is particularly relevant because it can inform culturally sensitive and inclusive physical education policies, promote equitable access to sports opportunities, and contribute to the overall psychosocial development of tribal youth. By examining how engagement in sports and structured physical activities correlates with self-concept, researchers and policymakers can better design interventions that support both psychological and physical growth, while recognizing the socio-cultural realities of tribal adolescents.

This paper aims to critically review and synthesize existing literature on the association between sports participation and self-concept among tribal adolescents, highlighting theoretical frameworks, empirical evidence, and policy implications. Additionally, it seeks to identify gaps in the literature where further research is necessary, particularly in region-specific contexts like Kerala. By integrating insights from global studies, national research,

and local tribal perspectives, the review provides a comprehensive understanding of the potential of sports participation as a tool for empowerment, identity development, and holistic adolescent well-being.

Methodology

This study employs a conceptual review design to synthesize existing theoretical and empirical literature on the relationship between sports participation and self-concept among tribal adolescents, with particular reference to Kerala. A systematic literature search was conducted across electronic databases including PubMed, Scopus, PsycINFO, SPORTDiscus, Google Scholar, and Shodhganga using keyword combinations such as "sports participation," "physical activity," "self-concept," "tribal adolescents," "indigenous youth," and "Kerala." Studies published between 1976 and 2025 were included if they examined adolescent populations, addressed sports participation and psychological outcomes related to self-concept, and were written in English or Malayalam. The review was guided by three theoretical frameworks: Multidimensional Self-Concept Theory (Shavelson et al., 1976), Achievement Motivation Theory (Atkinson, 1964; Nicholls, 1989), and a Socio-Cultural Framework incorporating indigenous perspectives. Data were synthesized thematically across domains including mechanisms linking sports participation to self-concept, contextual factors affecting tribal adolescents, empirical patterns, research gaps, and policy implications. Given the limited empirical research specifically targeting tribal adolescents in Kerala, a narrative synthesis approach was adopted to integrate insights from diverse disciplinary perspectives and identify directions for future research.

Theoretical Framework

This review is anchored in three complementary theoretical perspectives that provide a comprehensive lens for understanding the sports participation-self-concept nexus among tribal adolescents.

Multidimensional Self-Concept Theory

Shavelson, Hubner, and Stanton (1976) conceptualized self-concept as a multifaceted, hierarchical construct comprising academic and non-academic dimensions, with the latter further divided into social, emotional, and physical self-concept. Physical self-concept, which includes perceptions of physical ability, appearance, and fitness, is particularly relevant to sports participation. According to this model, global self-esteem is influenced by domain-specific self-evaluations. Consequently, positive experiences in sports can enhance physical self-concept, which in turn contributes to improved global self-worth (Marsh et al., 2016). For tribal adolescents, engagement in physical activities—whether formal sports or traditional games—can directly bolster this foundational component of self-perception.

Achievement Motivation Theory

Achievement motivation theories, particularly those advanced by Atkinson (1964) and Nicholls (1989), emphasize the role of perceived competence in driving motivated behavior. Individuals are motivated to demonstrate competence and avoid failure in achievement contexts such as sports. When adolescents experience success and mastery in physical activities, their perceived competence increases, reinforcing their intrinsic motivation to participate and persist. This cycle of mastery, recognition, and enhanced self-perception is central to the development of a positive self-concept (Ntoumanis et al., 2020). For marginalized tribal youth, sports can offer a critical arena for experiencing success and validation that may be less accessible in other life domains.

Socio-Cultural Framework

A socio-cultural perspective recognizes that the meaning and impact of sports participation are shaped by the cultural, historical, and social context of the individual (Manitowabi, 2022). For indigenous youth, physical activity is often intertwined with cultural identity, community life, and traditional practices. This framework emphasizes that interventions must be culturally congruent to be effective. Understanding the traditional games, communal values, and unique challenges of tribal communities in Kerala is essential for designing sports programs that resonate with adolescents and foster genuine psychological growth.

Sports Participation and Psychological Development: A Review of Evidence

The review of literature confirms that sports participation during adolescence positively influences multiple domains of psychological development. Enhanced self-esteem and body satisfaction emerge as consistent outcomes, with perceived physical competence mediating the relationship between participation and global self-worth (Marsh et al., 2016; Babic et al., 2014). Improved social competence and peer relationships represent another significant outcome. Team-based activities provide structured social contexts for developing cooperation, communication, and conflict resolution skills, contributing to a sense of belonging and social acceptance (Smith et al., 2018; Eime et al., 2021). The literature also highlights the role of sports in reducing anxiety and depressive symptoms by promoting endorphin release, mood regulation, and mastery experiences that counteract feelings of helplessness (Rodriguez-Ayllon et al., 2019).

An important distinction in the literature is between structured and unorganized physical activity. While recreational play offers benefits, structured sports programs—with regular coaching, practice schedules, and peer interaction—yield more consistent and significant outcomes in skill development and self-concept enhancement (Eime et al., 2021). Structured programs facilitate goal-setting, progressive mastery, and recognition, all essential for strengthening self-perception.

The Tribal Adolescent Context in Kerala: Strengths and Barriers

The review identifies a complex interplay of community strengths and structural barriers that shape sports participation among tribal adolescents in Kerala.

Inherent Community Strengths

Tribal adolescents possess inherent strengths conducive to physical development. Traditional livelihoods often require sustained physical exertion, building functional strength and endurance. Tribal communities maintain rich traditions of community-based games integrated into festivals and daily life, which naturally nurture skills like confidence, leadership, and problem-solving. The communal lifestyle prevalent in many tribal societies promotes collective responsibility and social support, naturally fostering cooperative behaviors and teamwork.

Structural and Systemic Barriers

Tribal adolescents face formidable barriers. Limited sports infrastructure in tribal schools, such as the absence of proper playgrounds and equipment—restricts opportunities for regular physical activity. A shortage of qualified physical education teachers and coaches limits quality instruction, talent identification, and mentorship, preventing adolescents from translating innate abilities into formal skill development (Oja & Piksööt, 2025). Nutritional challenges prevalent in tribal regions can hinder growth, endurance, and physical performance, adversely affecting adolescents' confidence and participation. Gender-based restrictions rooted in traditional norms often discourage girls from participating in sports, creating disparities in access to psychosocial benefits (Pulido-Serrano et al., 2021). Socio-economic pressures, including poverty and early involvement in income generation, constrain the time available for recreational activities, compelling adolescents to prioritize survival over leisure (Fernández Bustos et al., 2019). Geographical isolation restricts connectivity to district-level sports programs and competitions, limiting exposure to broader athletic environments (Lang et al., 2018). Finally, policy gaps persist, with existing sports policies remaining predominantly urban-centric and failing to integrate the unique needs of tribal adolescents, including the recognition of indigenous games.

Discussion

The findings of this conceptual review reveal that sports participation holds significant potential for enhancing self-concept among tribal adolescents, yet multiple structural, cultural, and systemic barriers systematically constrain their access to organized physical activity programs. This discussion integrates the key findings with the theoretical frameworks and situates them within the broader context of existing literature.

Integration of Theoretical Perspectives

The three guiding frameworks provide complementary insights. The Multidimensional Self-Concept Theory is supported by evidence showing that physical competence, developed through sports, positively influences global self-esteem (Babic et al., 2014). For tribal youth, even culturally rooted physical activities can reinforce physical self-concept, validating their traditional practices as legitimate forms of physical expression. Achievement Motivation Theory explains how success experiences in sports—skill mastery, goal achievement—reinforce intrinsic motivation and perceived competence (Ntoumanis et al., 2020). For marginalized tribal adolescents, sports may offer a vital alternative pathway for competence validation, counterbalancing disadvantages in academic or social domains. The Socio-Cultural Framework highlights that when institutional frameworks ignore indigenous physical activities, tribal youth lose opportunities for culturally grounded self-development. Conversely, incorporating local games into formal education can reinforce both cultural pride and psychological well-being, enhancing engagement and motivation.

Empirical Patterns and Their Relevance to Tribal Youth

The frequency effect underscores the need for sustainable, regular sports programs in tribal schools to enable consistent participation, which is linked to higher self-concept (Marsh et al., 2016). The team sport advantage suggests that team-based activities, which align well with the communal values of tribal societies, can be particularly effective in enhancing social self-concept and belonging (Eime et al., 2021). The gender impact pattern highlights the critical importance of gender-sensitive approaches to address cultural barriers and ensure girls gain the self-confidence and leadership benefits associated with sports (Pulido-Serrano et al., 2021). The skill mastery pathway emphasizes that creating opportunities for progressive achievement in sports can provide competence validation that is especially significant for tribal youth who may have limited opportunities in other areas (Ntoumanis et al., 2020). The structured versus unorganized participation distinction carries important policy implications, suggesting that efforts to promote sports among tribal youth should prioritize well-organized, structured programs over unstructured activities to maximize psychosocial benefits.

Addressing the Research Gaps

The review confirms critical gaps, including the absence of comprehensive empirical studies specifically on tribal populations in Kerala and limited documentation of indigenous games and their psychological benefits. The lack of longitudinal research tracking the sustained effects of sports participation on tribal adolescents' development is a significant limitation. Future research must employ interdisciplinary, context-sensitive approaches, integrating insights from physical education, psychology, and sociology to develop culturally grounded interventions.

Implications for Policy and Practice

The findings carry significant implications for policy and practice in Kerala's tribal regions.

Establish Structured School-Based Sports Programs

Structured school-based sports programs provide consistent, organized physical activity through regular practice schedules. They enable progressive skill development, allowing students to learn and improve systematically over time. These programs create a framework for setting and achieving goals, which is essential for building perceived competence in adolescents. Through skill improvement and recognition of achievements, they directly strengthen physical self-concept and overall self-esteem. For tribal youth living in unstable environments, such programs offer a safe, predictable space for personal growth and psychological development.

Integrate Indigenous Games into Curricula

Integrating indigenous games into physical education validates and celebrates the traditional physical activities embedded in the community's heritage. This approach fosters cultural pride by affirming that traditional games are valuable and legitimate forms of physical expression. Because these activities feel familiar and connected to their identity, tribal adolescents show increased motivation and sustained participation. It bridges the gap between the

community and the school, making physical education more holistic and contextually meaningful. Ultimately, this strategy promotes overall well-being while simultaneously honoring and preserving cultural traditions.

Invest in Teacher Professional Development

Investing in teacher professional development equips physical educators with culturally responsive pedagogy, enabling them to understand and respect the unique backgrounds of tribal students. Training in sport psychology helps teachers foster mastery-oriented environments and support the emotional development of adolescents. Inclusive coaching strategies ensure that teachers create supportive atmospheres where every student feels valued and capable. Such training enables teachers to provide effective mentorship and constructive feedback that nurtures student growth. Consequently, physical education becomes a powerful vehicle for positive identity formation among tribal youth.

Implement Gender-Inclusive Strategies

Gender-inclusive strategies ensure that the benefits of sports participation are distributed equitably between boys and girls. This may involve creating safe, single-gender practice spaces to respect cultural sensitivities while still enabling girls to participate. Mentorship programs that connect girls with female role models provide inspiration and demonstrate that sports participation is achievable and rewarding. These approaches thoughtfully remove cultural and structural barriers that traditionally limit girls' access to physical activities. By creating accessible pathways, girls can experience empowerment, develop leadership skills, and enhance their self-concept through sports.

Foster Community Involvement

Fostering community involvement transforms school-based sports programs into community-wide initiatives through shared ownership and responsibility. Engaging community leaders and families in the planning process ensures cultural appropriateness and helps mobilize local resources effectively. When families are involved and supportive, the social support network surrounding the adolescent is significantly strengthened. This local investment increases program sustainability because the community becomes genuinely committed to long-term success. As a result, tribal youth continue to benefit from these programs even beyond the duration of external funding or support.

Integrate Nutrition and Health Interventions

Integrating nutrition and health interventions with sports programs recognizes that physical and psychological development are deeply interconnected. Addressing prevalent nutritional challenges such as undernutrition prevents these issues from hindering physical performance, endurance, and cognitive function. When the body is properly nourished and equipped for physical activity, adolescents are less likely to experience frustration and negative self-concept from poor performance. Combining sports with health support like school meal programs and nutrition education creates comprehensive support for holistic development. This integrated approach optimizes both the physical capabilities and psychosocial outcomes of sports participation.

Develop Monitoring and Talent Identification Systems

Developing monitoring and talent identification systems enables accountability and evidence-based refinement of sports programs through regular tracking of participation and outcomes. Using culturally appropriate assessment tools helps stakeholders understand program effectiveness and identify areas needing improvement. Early talent identification that recognizes abilities developed through traditional livelihoods and games creates more equitable pathways for athletic potential. These systems ensure that exceptional talent is identified and nurtured regardless of whether it originated in formal sports or traditional activities. Ultimately, this provides life-changing opportunities for achievement, significantly enhancing individual self-concept and generating collective community pride.

Conclusion

This conceptual review demonstrates that sports participation holds significant potential for enhancing self-concept and psychological development among tribal adolescents in Kerala. The integration of multidimensional self-concept, achievement motivation, and socio-cultural theories provides a comprehensive understanding of how structured physical activity influences self-perception. Tribal adolescents possess inherent strengths, physical endurance, rich traditions of community games, and communal values, that can be leveraged to promote positive development. However, these are counterbalanced by structural barriers including limited infrastructure, nutritional challenges, gender disparities, and policy gaps. By leveraging sports as a developmental and empowerment tool, and by addressing the critical research gaps and policy needs identified in this review, stakeholders can contribute not only to individual self-concept enhancement but also to broader community cohesion, cultural preservation, and equitable access to psychosocial growth opportunities for one of India's most marginalized populations.

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