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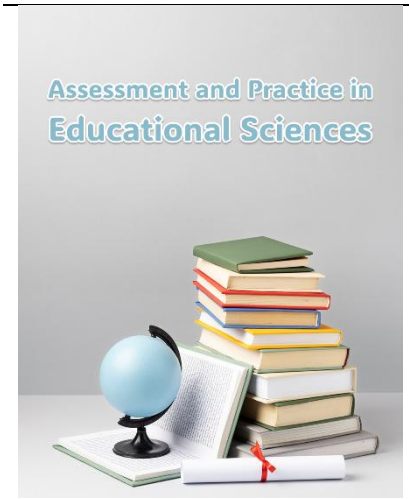

Qualitative Analysis of the Causes and Consequences of Declining Student Motivation in Physical Education Classes

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ABSTRACT

This study aimed to qualitatively explore the underlying causes and consequences of declining student motivation in physical education (PE) classes among high school students in Tehran. A qualitative research design with a descriptive–exploratory approach was employed. Sixteen high school students (8 males and 8 females) aged 15–18 years were selected through purposive sampling to capture diverse experiences. Data were collected through semi-structured, face-to-face interviews and continued until theoretical saturation was reached. Interviews were audio-recorded, transcribed verbatim, and analyzed using thematic analysis. NVivo 14 software was utilized to code the data in three stages: open coding, axial coding, and selective coding. Open coding generated 72 initial codes, axial coding grouped them into 18 broader categories, and selective coding synthesized these into two main themes: causes and consequences of motivational decline. Analysis revealed that causes of declining motivation encompassed multiple dimensions, including lack of engaging and varied activities, inadequate teaching methods, limited resources and facilities, insufficient teacher support, negative teacher behaviors, overemphasis on competition, peer-related challenges, student-related barriers, academic and external pressures, cultural and gender-related limitations, and organizational weaknesses. Consequences included reduced engagement in class activities, lower physical fitness levels, weakened social relationships, diminished self-confidence in physical abilities, increased absenteeism from PE, and decreased likelihood of sustaining lifelong physical activity habits. These findings align with prior studies highlighting the influence of self-efficacy, autonomy support, cultural values, and environmental resources on academic motivation. Declining student motivation in PE is the result of a complex interplay of individual, social, cultural, and environmental factors, leading to significant short- and long-term consequences for students' physical, social, and emotional well-being. Addressing these issues requires multifaceted interventions that enhance instructional practices, improve facilities, foster supportive peer and teacher relationships, and challenge cultural stereotypes that limit participation, particularly among female students.

Keywords: Academic motivation, physical education, qualitative study, high school students, self-efficacy, autonomy support, student engagement

Introduction

Academic motivation is widely recognized as a fundamental driver of students' engagement, persistence, and achievement in diverse educational contexts. It is not only a predictor of academic success but also a determinant of students' willingness to participate actively in the learning process, develop self-regulated learning strategies, and adapt to academic challenges (1, 2). Within the framework of Self-Determination Theory (SDT) and related motivational models, academic motivation is shaped by the interplay of personal beliefs, social contexts, and environmental conditions that either support or hinder students' intrinsic and extrinsic motivational orientations (3, 4). As a multidimensional construct, it encompasses factors such as self-

efficacy, autonomy, goal orientation, and emotional engagement, each of which interacts with socio-cultural influences and educational practices (5, 6).

Recent empirical findings emphasize that fear of failure, while often perceived as a deterrent, can also shape academic motivation in complex ways. In higher education, for instance, fear of failure has been linked to both increased engagement through heightened effort and to disengagement when it triggers anxiety and avoidance behaviors (1). Similarly, learners' autonomy has been identified as a critical determinant of motivation, with greater autonomy associated with stronger persistence, resilience, and the development of grit among university students (7). These findings align with broader evidence showing that autonomy support from instructors enhances motivation, self-regulation, and life skills in various educational settings (4).

Self-efficacy plays an equally significant role in predicting academic motivation across contexts. Studies have consistently shown that students with higher levels of self-efficacy are more likely to demonstrate greater enthusiasm for learning, better adaptation to challenges, and improved academic performance (8-10). Self-efficacy not only mediates the relationship between personal attributes and academic motivation but also amplifies the positive effects of supportive learning environments (5, 11). Moreover, in contexts such as medical education, the interplay between motivation, self-efficacy, and social support has been shown to enhance both learning outcomes and students' confidence in their abilities (10).

Cultural, social, and institutional factors also exert a powerful influence on academic motivation. Cross-cultural research has demonstrated that motivational drivers vary significantly across societies, shaped by prevailing cultural norms, educational traditions, and societal expectations (12). For example, collectivist contexts may emphasize social harmony and family expectations as motivational forces, whereas individualist contexts often prioritize self-determination and personal achievement (12, 13). In certain cultural settings, students' mindset—whether fixed or growth-oriented—interacts with motivation to shape engagement and persistence in learning (14, 15). Research on mindset has revealed that a growth mindset is positively correlated with intrinsic motivation and academic resilience, whereas a fixed mindset can limit adaptability and persistence (14).

At the same time, academic motivation is closely linked to emotional and behavioral outcomes. High levels of motivation have been associated with academic flourishing, reduced procrastination, and lower burnout among students (16, 17). Conversely, low motivation is often a precursor to disengagement, absenteeism, and diminished academic performance (18, 19). Motivation also mediates the impact of other psychological variables on academic outcomes, including moral intelligence (16), peer attachment (20), and attention control (21).

The relationship between academic motivation and self-regulated behaviors has been well-documented in developmental and higher education research. In middle childhood, motivated students are more likely to adopt adaptive learning strategies and exhibit self-regulated classroom behaviors, with parental education moderating these effects (22). Among undergraduate populations, motivation strongly predicts self-regulation and quality of learning experiences (18). Moreover, in online and blended learning contexts, self-efficacy often mediates the link between motivation and academic achievement (23), highlighting the importance of integrating motivational and cognitive interventions.

The rise of digital technologies and the prevalence of online learning environments have also introduced new dynamics in the study of academic motivation. While digital tools can foster engagement and autonomy, they may also contribute to distractions and digital addiction, which can undermine motivation and life satisfaction (24). The influence of teaching style on motivation has similarly been observed, with supportive and autonomy-oriented instructional approaches linked to more positive student evaluations of teaching (25). Conversely, rigid or controlling teaching styles may limit students' perceived autonomy, leading to reduced motivation (7).

Individual differences further shape how students respond to motivational challenges. Factors such as self-control (21), psychological capital (26), and prior academic experiences influence not only the strength of motivation but also the ways in which students regulate their emotions and behaviors in academic contexts (11). For example, students with higher psychological capital tend to employ more effective learning strategies and exhibit greater persistence, even when facing academic difficulties (26). Similarly, academic self-concept plays an important role, particularly for students with special education needs, influencing their motivation and engagement in higher education (6).

Motivation is also a key determinant of students' career aspirations and professional development. In fields such as physical education and teacher training, autonomy support and intrinsic motivation have been linked to the acquisition of life skills and professional competencies (4). For incarcerated juveniles, motivation informed by self-determination theory has been associated with positive educational engagement despite challenging contexts (3). These findings underscore the versatility of motivational constructs across varied educational settings and populations.

Despite the breadth of research, gaps remain in understanding the underlying mechanisms of motivational decline, particularly in specific learning contexts such as physical education. Physical education presents unique motivational challenges due to its dual focus on physical competence and social interaction, both of which can be influenced by peer dynamics, teacher behaviors, and institutional priorities (4, 20). Declining motivation in such settings can have far-reaching consequences, including reduced participation in physical activity, diminished health outcomes, and the erosion of skills that contribute to lifelong engagement in exercise.

Given this context, the present study seeks to qualitatively explore the causes and consequences of declining student motivation in physical education classes, focusing on the lived experiences of high school students in Tehran.

Methods and Materials

This study employed a qualitative research design with a descriptive–exploratory approach to gain an in-depth understanding of the underlying causes and consequences of declining student motivation in physical education classes. The research was conducted among high school students in Tehran, Iran. Participants were selected through purposive sampling to ensure maximum variation in experiences and perspectives. The final sample consisted of 16 participants, including both male and female students, who were actively attending physical education classes. Sampling continued until theoretical saturation was reached, meaning that no new codes, categories, or themes emerged from the data.

Data were collected using semi-structured, face-to-face interviews, allowing for flexibility in probing deeper into participants' experiences while maintaining a consistent set of core questions. The interview guide included open-ended questions related to students' perceptions, experiences, and reflections on factors influencing their motivation in physical education classes, as well as the perceived consequences of motivational decline. Each interview lasted between 35 and 60 minutes, and was conducted in a quiet and comfortable setting to facilitate open and honest dialogue. All interviews were audio-recorded with participants' informed consent and subsequently transcribed verbatim.

Data were analyzed using thematic analysis to identify, code, and interpret recurring patterns and themes in participants' narratives. NVivo 14 qualitative data analysis software was used to assist in the systematic organization, coding, and retrieval of data segments. The analysis process involved multiple readings of the transcripts, open coding, categorization into subthemes, and abstraction into main themes. To enhance credibility, member checking was conducted by sharing preliminary findings with several participants for verification, and peer debriefing was used to refine the coding framework.

Findings and Results

The study sample comprised 16 high school students from Tehran, including 8 males (50%) and 8 females (50%), selected to ensure diversity in experiences and perspectives. Participants ranged in age from 15 to 18 years, with the largest group aged 16 years (n = 7; 43.8%), followed by 17 years (n = 5; 31.3%), 15 years (n = 3; 18.8%), and 18 years (n = 1; 6.3%). Regarding academic level, 5 participants (31.3%) were in the first year of high school, 6 participants (37.5%) in the second year, and 5 participants (31.3%) in the third year. All participants were actively enrolled in physical education classes at the time of the study. This distribution reflects a balanced representation of genders and grade levels, providing a comprehensive range of perspectives for the qualitative analysis.

In the first phase of data analysis, the transcribed interviews were subjected to open coding to identify meaningful concepts related to the causes and consequences of declining student motivation in physical education classes. Each transcript was read several times to capture the essence of participants' experiences. Codes were assigned to discrete segments of text that represented distinct ideas, emotions, or observations. This process yielded a comprehensive set of open codes encompassing both internal and external factors affecting motivation, as well as short- and long-term consequences. The open coding stage resulted in 72 distinct codes, reflecting the diversity of perspectives and experiences among the 16 participants. Table 1 presents the full list of open codes along with the identifiers of participants who mentioned each code.

Table 1. Open Codes and Interviewees Mentioning Them

Open Code	Interviewees Mentioning the Code
Lack of variety in physical activities	P1, P4, P7, P9, P12
Repetitive lesson content	P2, P5, P8, P14
Outdated teaching methods	P3, P6, P11, P13, P15
Limited sports equipment	P1, P2, P4, P10
Poor condition of sports facilities	P3, P5, P8, P12
Lack of encouragement from teachers	P1, P6, P9, P14, P16
Overemphasis on competitive performance	P2, P7, P11, P15
Insufficient feedback on progress	P4, P8, P13, P16
Favoritism towards certain students	P1, P3, P5, P9
Teacher's lack of enthusiasm	P2, P6, P10, P14
Overcrowded classes	P4, P7, P11, P13
Inflexible curriculum	P5, P8, P12, P15
Lack of student choice in activities	P3, P6, P9, P16
Harsh criticism from instructors	P2, P7, P10, P14
Peer teasing or bullying during class	P1, P5, P8, P12
Low self-confidence in physical skills	P3, P9, P13, P15
Physical health issues	P4, P6, P10, P14
Academic workload pressure	P2, P7, P11, P16
Perception that PE is less important	P1, P3, P8, P12
Cultural undervaluing of sports for girls	P5, P9, P13, P15
Weather-related discomfort	P4, P6, P10, P14
Safety concerns in sports environment	P2, P7, P11, P13
Insufficient warm-up time	P1, P3, P9, P16
Lack of awareness of health benefits	P5, P8, P12, P14
Poor time management in class	P2, P4, P7, P13
Overemphasis on winning	P1, P6, P9, P15
Low parental support for sports	P3, P5, P8, P12
Teacher–student communication gap	P2, P4, P10, P14
Gender stereotypes in sports	P1, P3, P9, P15
Lack of role models in sports	P5, P7, P11, P16
Inconsistent grading criteria	P2, P6, P8, P12
Unclear learning objectives	P4, P9, P13, P15
Physical fatigue from other classes	P1, P3, P10, P14
Stress from performance evaluation	P2, P7, P11, P16
Limited opportunities for leadership roles	P5, P8, P12, P15

Minimal integration of fun activities	P3, P6, P9, P14
Teacher bias towards athletic students	P1, P4, P7, P13
Lack of adaptation for different skill levels	P2, P5, P8, P12
Overly rigid rules in class	P3, P6, P9, P15
Insufficient peer collaboration	P4, P7, P11, P16
Absence of extracurricular sports events	P1, P5, P8, P12
Inadequate teacher training in motivation strategies	P2, P6, P9, P14
Perceived irrelevance to future goals	P3, P7, P10, P15
Lack of reward systems	P4, P8, P12, P16
Disconnection between PE and health education	P1, P5, P9, P14
Monotony in physical exercises	P2, P6, P8, P12
Shortage of space for activities	P3, P7, P11, P15
Pressure from parents to focus on academics	P4, P6, P10, P14
Negative past experiences in sports	P1, P5, P9, P16
Limited class duration	P2, P7, P8, P12
Lack of peer motivation	P3, P6, P9, P15
Poor scheduling of PE classes	P4, P8, P10, P14
Teacher's inconsistent attendance	P1, P5, P11, P16
Emotional stress outside school affecting PE participation	P2, P7, P9, P13
Inadequate acknowledgment of effort	P3, P6, P10, P15
Absence of individualized learning plans	P4, P8, P12, P14
Unpleasant changing room conditions	P1, P5, P9, P16
Lack of creativity in lesson design	P2, P6, P8, P13
Minimal student involvement in decision-making	P3, P7, P10, P15
Disconnect between PE and community sports opportunities	P4, P9, P11, P14
Overemphasis on theoretical assessments	P1, P5, P8, P12
Insufficient peer support networks	P2, P6, P9, P15
Teacher's inability to manage disruptive behavior	P3, P7, P10, P14
Poor alignment with student interests	P4, P8, P12, P16
Absence of fitness tracking and progress monitoring	P1, P5, P9, P13

In the second phase of data analysis, the open codes were examined for conceptual relationships and grouped into broader, more abstract categories. This stage involved identifying patterns, connections, and causal relationships between codes that shared similar meanings or addressed related aspects of declining student motivation in physical education classes. Using the constant comparison method, the 72 open codes generated in the first stage were reduced and organized into 18 axial codes. Each axial code represents a central phenomenon, condition, or consequence that integrates several related open codes. Table 2 shows the axial codes and their corresponding open codes.

Table 2. Axial Codes and Corresponding Open Codes

Axial Code	Corresponding Open Codes
Lack of engaging and varied activities	Lack of variety in physical activities; Repetitive lesson content; Monotony in physical exercises; Minimal integration of fun activities; Lack of creativity in lesson design
Inadequate teaching methods	Outdated teaching methods; Inflexible curriculum; Overly rigid rules in class; Lack of adaptation for different skill levels; Inadequate teacher training in motivation strategies
Limited resources and facilities	Limited sports equipment; Poor condition of sports facilities; Shortage of space for activities; Unpleasant changing room conditions
Insufficient teacher support	Lack of encouragement from teachers; Insufficient feedback on progress; Inadequate acknowledgment of effort; Teacher's inconsistent attendance
Negative teacher behaviors	Favoritism towards certain students; Harsh criticism from instructors; Teacher bias towards athletic students; Teacher's inability to manage disruptive behavior
Overemphasis on competition and winning	Overemphasis on competitive performance; Overemphasis on winning; Stress from performance evaluation
Peer-related challenges	Peer teasing or bullying during class; Lack of peer motivation; Insufficient peer collaboration; Insufficient peer support networks
Student-related barriers	Low self-confidence in physical skills; Physical health issues; Emotional stress outside school affecting PE participation; Negative past experiences in sports
Academic and external pressures	Academic workload pressure; Pressure from parents to focus on academics; Physical fatigue from other classes

Cultural and gender-related limitations	Cultural undervaluing of sports for girls; Gender stereotypes in sports
Time and scheduling issues	Limited class duration; Poor scheduling of PE classes; Insufficient warm-up time; Poor time management in class
Safety and comfort concerns	Safety concerns in sports environment; Weather-related discomfort
Disconnect from student interests and goals	Lack of student choice in activities; Poor alignment with student interests; Perceived irrelevance to future goals
Weak curriculum integration	Lack of awareness of health benefits; Disconnection between PE and health education; Overemphasis on theoretical assessments
Limited extracurricular opportunities	Absence of extracurricular sports events; Disconnect between PE and community sports opportunities
Ineffective assessment and grading	Inconsistent grading criteria; Unclear learning objectives
Lack of student involvement in decision-making	Minimal student involvement in decision-making; Limited opportunities for leadership roles
Structural and organizational weaknesses	Poor alignment with student interests; Lack of role models in sports; Absence of individualized learning plans

The axial coding process revealed that the wide range of open codes could be effectively clustered into 18 broader categories that captured the main patterns and underlying issues influencing student motivation in physical education. These axial codes highlight the multi-dimensional nature of the problem, encompassing instructional practices, resource availability, teacher–student relationships, cultural constraints, and organizational structures. The grouping also made it possible to see how certain open codes—such as "lack of variety in physical activities" and "monotony in exercises"—are not isolated issues but rather part of a larger theme around *lack of engaging and varied activities*. This organization of data sets the stage for the selective coding phase, where the relationships between these categories will be integrated into a coherent theoretical model of the causes and consequences of motivational decline.

In the final phase of the analysis, the axial codes were integrated into two overarching selective codes, representing the most significant and abstract categories that capture the essence of the study's findings. Selective coding involves identifying a central storyline that connects all categories and explains the phenomenon under investigation. In this study, the phenomenon—declining student motivation in physical education classes—was best explained through two major dimensions: causes and consequences. The "causes" category encompasses the structural, instructional, interpersonal, cultural, and individual factors that contribute to motivational decline. The "consequences" category includes the academic, behavioral, psychological, and social outcomes that result from this decline. Table 3 presents the selective codes along with the axial codes that correspond to each.

Table 3. Selective Codes and Corresponding Axial Codes

Selective Code	Corresponding Axial Codes
Causes	Lack of engaging and varied activities; Inadequate teaching methods; Limited resources and facilities; Insufficient teacher support; Negative teacher behaviors; Overemphasis on competition and winning; Peer-related challenges; Student-related barriers; Academic and external pressures; Cultural and gender-related limitations; Time and scheduling issues; Safety and comfort concerns; Disconnect from student interests and goals; Weak curriculum integration; Limited extracurricular opportunities; Ineffective assessment and grading; Lack of student involvement in decision-making; Structural and organizational weaknesses
Consequences	Decline in physical participation; Reduced engagement in class activities; Lower physical fitness levels; Increased absenteeism from PE; Decreased enjoyment of physical activity; Weakened social relationships with peers; Diminished self-confidence in physical abilities; Heightened academic focus at the expense of physical activity; Increased sedentary behavior outside school; Reduced likelihood of lifelong sport participation

The selective coding process distilled the wide range of factors into two principal themes that form the backbone of the study's findings. The causes of declining motivation were multi-layered, spanning environmental constraints (such as inadequate facilities and scheduling issues), pedagogical shortcomings (including outdated teaching methods and lack of engaging activities), interpersonal dynamics (such as peer bullying and insufficient teacher support), and broader socio-cultural

factors (including gender norms and undervaluation of sports). In contrast, the consequences reflected both immediate and longer-term effects, including reduced participation in PE classes, weaker peer relationships, diminished physical fitness, and a lower likelihood of sustaining an active lifestyle in adulthood. By organizing the axial codes under these two selective codes, the analysis provides a coherent explanatory framework that can inform targeted interventions to address the root causes and mitigate the negative outcomes associated with motivational decline in physical education.

Discussion and Conclusion

The present qualitative study examined the causes and consequences of declining student motivation in physical education (PE) classes among high school students in Tehran, using semi-structured interviews and thematic analysis. The findings revealed a complex set of interrelated factors—ranging from inadequate teaching methods and limited resources to peer-related challenges, academic pressures, and cultural constraints—that collectively undermine students' engagement in PE. The results also highlighted significant consequences, including reduced physical participation, diminished enjoyment of physical activity, and lower self-confidence in physical abilities. These findings align with the broader body of literature on academic motivation, which underscores the interplay of individual, social, and institutional factors in shaping students' willingness to engage in learning activities (1, 2).

One of the prominent causes identified in this study was the lack of engaging and varied activities in PE classes, which students perceived as monotonous and repetitive. This result is consistent with research showing that student motivation is significantly enhanced when instructional activities are varied, challenging, and relevant to learners' interests (13, 25). In particular, autonomy-supportive teaching approaches that provide students with meaningful choices and opportunities for active participation have been found to promote intrinsic motivation and engagement (4, 7). Conversely, rigid teaching styles and an overemphasis on competitive performance, both observed in the current study, can lead to disengagement and increased performance anxiety, especially among students with lower self-confidence in physical skills (6, 9).

The findings also emphasized the impact of inadequate resources and facilities—such as limited sports equipment and poor physical conditions—on motivation. Prior studies have highlighted the importance of a supportive physical environment for fostering academic motivation, noting that well-maintained, resource-rich learning spaces can enhance students' self-efficacy and willingness to participate (8, 10). Self-efficacy, in turn, mediates the relationship between environmental support and students' enthusiasm for learning (5, 11). In the context of PE, where physical facilities play a central role, inadequate infrastructure not only limits the variety of activities that can be offered but also diminishes students' sense of competence, a core determinant of intrinsic motivation (4, 20).

Interpersonal factors emerged as another critical category of motivational decline. Students reported that insufficient encouragement from teachers, inconsistent feedback, and perceived favoritism negatively affected their willingness to engage in PE classes. This aligns with prior evidence that positive teacher–student relationships and constructive feedback are crucial for sustaining academic motivation (18, 19). Research also indicates that teacher enthusiasm and equitable treatment of students contribute to the development of grit and persistence, especially when combined with autonomy-supportive practices (7, 21). Conversely, negative teacher behaviors—such as harsh criticism or neglect—can erode students' self-efficacy and increase their susceptibility to disengagement (6, 27).

Peer-related dynamics, including teasing, bullying, and lack of peer collaboration, were also significant demotivators identified in this study. The literature shows that peer attachment and supportive peer relationships can positively influence motivation by providing emotional support, enhancing self-esteem, and encouraging participation (13, 20). In contrast, negative peer interactions can foster avoidance behaviors, particularly in physical activities where performance is visible to others (3,

6). The findings suggest that fostering a cooperative rather than competitive peer environment could help mitigate these negative effects and promote inclusive participation.

Academic and external pressures also emerged as notable contributors to declining motivation in PE. Participants indicated that heavy academic workloads and parental emphasis on academic subjects over physical education often led to prioritizing classroom study at the expense of physical activity. This is consistent with previous research showing that competing academic demands can diminish motivation for non-academic subjects, especially when students perceive these subjects as less important for their future goals (14, 16). Such devaluation of PE is often culturally reinforced, particularly in contexts where physical education is undervalued compared to academic performance (12, 13).

Cultural and gender-related factors were also identified as barriers, with female students reporting limited opportunities and societal expectations that constrained their participation in sports. This mirrors findings from cross-cultural studies that highlight the role of societal norms in shaping academic motivation, particularly in subjects perceived as gendered (12, 15). Addressing such barriers requires culturally sensitive interventions that challenge stereotypes and promote equitable access to physical education (3, 6).

The consequences identified in this study were multifaceted, encompassing reduced engagement in class activities, lower physical fitness levels, weakened social relationships, and diminished self-confidence in physical abilities. These outcomes align with prior findings that declining motivation can have both immediate and long-term effects on students' academic, social, and emotional well-being (21, 22). For instance, students with persistently low motivation in physical activities are less likely to develop lifelong exercise habits, which has implications for public health and overall quality of life (4, 20). Moreover, reduced participation in PE may contribute to increased sedentary behavior, exacerbating the risk of lifestyle-related health problems (8, 10).

Overall, the study's findings reinforce the view that academic motivation, including in physical education, is shaped by a dynamic interplay of individual dispositions, social relationships, environmental resources, and cultural norms (1, 2). Interventions aiming to reverse motivational decline must therefore address multiple levels simultaneously: enhancing teacher practices, improving physical resources, fostering positive peer interactions, and challenging cultural stereotypes that devalue PE. The alignment of the present findings with prior research strengthens the validity of the results and underscores the need for targeted, context-specific strategies to promote sustained engagement in physical education.

While this study provides valuable insights into the causes and consequences of declining student motivation in physical education classes, certain limitations should be acknowledged. First, the study was conducted among high school students in Tehran, which may limit the transferability of findings to other cultural or educational contexts. Second, the reliance on self-reported data from interviews may have introduced social desirability bias, with participants potentially underreporting certain negative experiences or overemphasizing socially acceptable responses. Third, the study's qualitative design, while rich in depth, does not allow for statistical generalization of the results. Additionally, the study focused exclusively on student perspectives and did not incorporate the views of teachers, administrators, or parents, which could provide a more holistic understanding of the issue. Finally, the cross-sectional nature of the study limits conclusions about the long-term trajectories of motivation and its consequences.

Future studies could expand on the present findings by including diverse educational settings, such as rural schools or private institutions, to examine how contextual differences influence motivation in physical education. Longitudinal research could provide insights into how motivational decline evolves over time and the extent to which early interventions can reverse or mitigate its effects. Mixed-methods approaches that integrate quantitative surveys with qualitative interviews could enhance the robustness and generalizability of findings. Including multiple stakeholder perspectives—such as those of teachers, school

administrators, and parents—could yield a more comprehensive understanding of the factors affecting motivation. Furthermore, experimental and intervention-based studies could test the effectiveness of specific strategies, such as autonomy-supportive teaching, resource enhancement, and peer collaboration initiatives, in improving student motivation in PE.

To address declining motivation in physical education, educators and policymakers should prioritize strategies that enhance both the learning environment and instructional practices. Teachers should be trained in autonomy-supportive and inclusive teaching methods that foster student engagement and accommodate diverse skill levels. Schools should invest in improving PE facilities and ensuring adequate resources to support varied and enjoyable physical activities. Creating a positive peer culture through cooperative learning activities can help reduce negative social dynamics such as bullying and favoritism. Additionally, integrating health education with physical activities may help students recognize the long-term value of PE, increasing their intrinsic motivation. Cultural and gender barriers should be actively addressed through awareness campaigns and policy measures that promote equitable access to physical education for all students.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adheried in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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