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Reasons why adolescents practice or drop out of sports: a descriptive study

Razones por las que los adolescentes practican o abandonan el deporte: un estudio descriptivo

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ABSTRACT

The objective of the present study was to determine the prevalence of motives for sport participation and dropout among adolescents at the upper secondary education level. Validated questionnaires were administered to a sample of high school students to assess motives for physical-sport practice as well as personal and social reasons associated with sport abandonment. Data analysis was conducted using descriptive statistics, including frequencies, percentages, and measures of central tendency. The results showed that motives for dropout presented low to moderate levels of agreement, with lack of time standing out as the personal reason with the highest relative agreement (M = 2.73). Regarding motives for sport participation, enjoyment of the activity and the emotional well-being associated with its practice were particularly prominent, especially feeling happy while engaging in sport (M = 6.08). These findings are consistent with recent literature, which identifies intrinsic motivation (linked to enjoyment and health) as a key factor in promoting sport adherence among adolescents. Additionally, previous studies highlight the influence of personal and social variables, such as self-perception, gender stereotypes, and social support, on the risk of sport dropout. In conclusion, motives for sport participation and abandonment in adolescents result from a combination of personal, social, and school-related factors. The results provide relevant evidence for the design of sport programs that prioritize enjoyment, perceived competence, and supportive environments that encourage continued engagement in physical activity during adolescence.

KEY WORDS: sports motivation, sports dropout, adolescents, psychological factors.

RESUMEN

El objetivo del presente estudio fue determinar la prevalencia de los motivos de práctica y abandono del deporte en adolescentes de nivel medio superior. Se aplicaron cuestionarios validados a una muestra de estudiantes de preparatoria para evaluar los motivos de práctica físico-deportiva y las razones personales y sociales asociadas al abandono. El análisis se realizó mediante estadística descriptiva, utilizando frecuencias, porcentajes y medidas de tendencia central. Los resultados mostraron que los motivos de abandono presentaron niveles de acuerdo bajos a moderados, destacando la falta de tiempo como el motivo personal con mayor acuerdo relativo (M = 2.73). En cuanto a los motivos de práctica, sobresalieron el disfrute de la actividad y el bienestar emocional asociado a su realización, particularmente sentirse feliz al practicarla (M = 6.08). Estos hallazgos coinciden con la literatura reciente, que identifica a la motivación intrínseca, vinculada al disfrute y a la salud, como un factor clave para la adherencia deportiva en adolescentes. Asimismo, estudios previos señalan la influencia de variables personales y sociales, como la autopercepción, los estereotipos de género y el apoyo social, en el riesgo de abandono. En conclusión, los motivos de práctica y abandono deportivo en adolescentes responden a una combinación de factores personales, sociales y escolares. Los resultados aportan evidencia relevante para el diseño de programas deportivos que prioricen el disfrute, la competencia percibida y entornos de apoyo que favorezcan la permanencia en la actividad física durante la adolescencia.

PALABRAS CLAVE: motivación deportiva, abandono deportivo, adolescentes, factores psicológicos.

INTRODUCTION

Adolescence is a transitional stage characterized by physical, psychological, and social changes that directly influence the adoption or abandonment of physical activity habits. During this period, health-related behaviors that can persist into adulthood are consolidated; however, factors that hinder continued sports participation also increase, such as academic demands, social pressure, identity exploration, and sensitivity to body perception. Although physical activity provides physical, emotional, and social benefits, evidence shows a progressive decline in practice during adolescence, making it a critical stage for sports adherence[1]. In Mexico, the Cartilla Mexicana de Actividad Física (Mexican Physical Activity Guidebook) also highlights structural limitations, limited availability of facilities, and an increase in sedentary behavior that affect exercise habits in this population[2].

From a theoretical perspective, sports dropout has been primarily analyzed through achievement goal theory. Adolescents with a task orientation, focused on personal improvement and learning, exhibit more adaptive motivational patterns, greater enjoyment, and a lower likelihood of dropping out. Conversely, an ego orientation, based on social comparison and normative performance, is associated with a higher risk of dropout, especially when low competence is perceived or the context emphasizes outcomes[3]. Thus, sports motivation largely depends on the type of goals promoted in school and sports environments.

Complementarily, self-determination theory holds that intrinsic motivation, linked to enjoyment, interest, and personal satisfaction, is more stable and predictive of adherence to physical activity[4], while extrinsic motives, such as appearance or social pressure, are related to participation that is more vulnerable to dropout. Instruments exist that have allowed the classification of practice motives into dimensions such as enjoyment, fitness/health, competence, appearance, and social factors, facilitating their application in adolescent populations[5].

Recent research confirms the multifactorial nature of the motives for practice and dropout. It has been identified that reasons for dropping out of sports cluster into personal, environmental-social, and attitudinal factors[6], and that adaptation to sports retirement is influenced by emotional connection and sports identity, even at early ages[7]. Likewise, the motivational climate generated by coaches and teachers has been linked to psychological well-being, self-esteem, and continued sports participation[8].

In the school setting, enjoyment, positive peer interaction, and group practice have been identified as key factors for sustaining physical activity during adolescence[9-11]. Furthermore, sex differences have been documented, with a higher likelihood of dropout observed in girls, associated with body insecurity, gender stereotypes, and appearance pressure[12-16]. Other studies have expanded this perspective by analyzing the relationship between physical fitness, specific sports, and personality traits in sports motivation[10,14].

Based on this theoretical framework, the objective of this study is to determine the prevalence of motives for sports participation and dropout among adolescents, in order to provide evidence that contributes to the design of more effective, motivating sports programs tailored to the needs of this population.

MATERIALS AND METHODS

Study Level and Design

The study had a descriptive scope, aimed at analyzing the motives for physical activity and sports participation and dropout among adolescents. A quantitative approach was adopted, with a non-experimental, cross-sectional design.

Population and Sample

The population consisted of 48,728 upper secondary education students in Hermosillo, Sonora, of whom 52% were female and 48% male. The sample size was calculated using an online sample size calculation tool[17], considering a confidence level of 98%, a margin of error of 5%, and a population proportion of 50%. A minimum sample of 557 students was obtained, consisting of 293 females (52.6%) and 264 males (47.4%), aged between 14 and 18 years (M = 15.82). Selection was carried out through proportional stratified probabilistic sampling by sex, with random selection within each stratum[17].

Variables and Instruments

Sociodemographic data. Age, sex, and current or previous physical activity or sports practice were recorded.

Reasons for dropping out of physical activity or sports practice[18]. The questionnaire proposed by Macarro was used, consisting of 15 items distributed across personal, environmental-social, and attitudinal reasons. Responses were obtained using a four-point Likert scale, ranging from "Strongly agree" (1) to "Strongly disagree" (4). The instrument shows adequate levels of internal consistency (α = .60 to .78).

Reasons for physical activity or sports practice[19]. The Motives for Physical Activity Measure–Revised (MPAM-R) was applied, consisting of 30 items grouped into five factors: enjoyment, appearance, social, fitness/health, and competence. Responses were recorded on a seven-point Likert scale, ranging from "Not at all true for me" (1) to "Very true for me" (7). The scale shows high reliability indices (α = .78 to .92).

Data Processing

A preliminary analysis of data quality and distribution was performed, followed by descriptive and reliability analyses using SPSS Statistics version 24. Internal consistency was evaluated using Cronbach's alpha coefficient. Subsequently, confirmatory factor analysis was conducted using JASP 0.95.4.0, employing a robust method appropriate to the data distribution.

RESULTS

Figure 1 presents the percentage distribution of participants according to their involvement in physical activity or sports. Forty-three percent reported currently engaging in some activity, 50% indicated they had dropped out of practice, and 7% stated they had never participated.

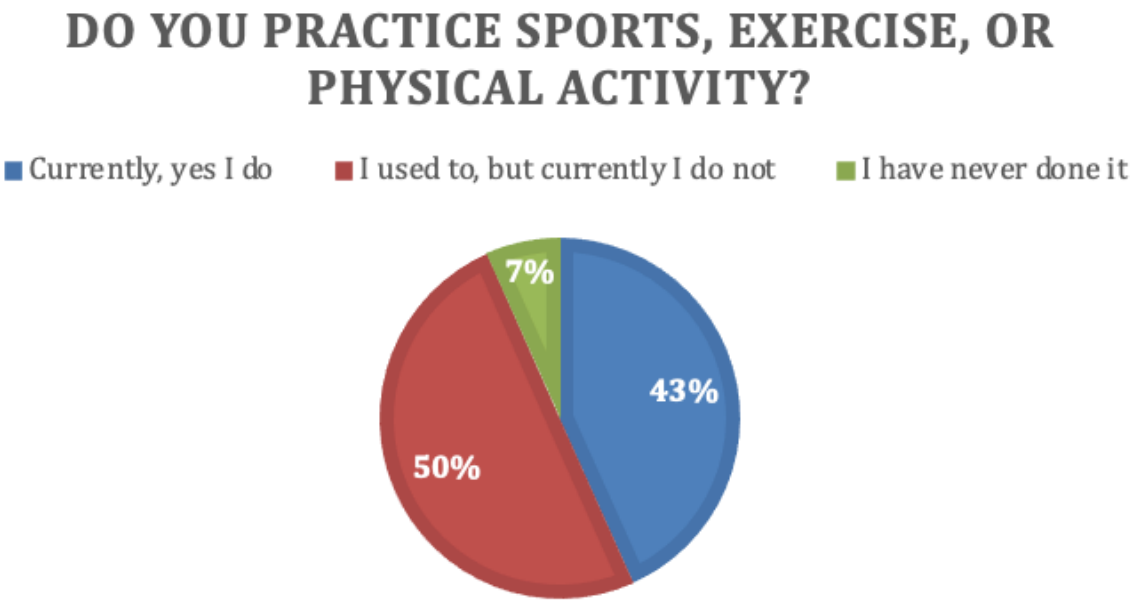

Figura 1. Análisis de porcentajes entre deportistas activos y no activos

Table 1 shows the descriptive statistics and reliability coefficients for the dimensions assessed. Sports Dropout and Sports Motives were analyzed as general constructs composed of their respective dimensions. In the case of dropout, mean scores were close to the midpoint, with the Personal Dropout dimension standing out (*M* = 2.21, *SD* = 0.52).

In contrast, Sports Motives showed higher mean values, with Fitness/Health (*M* = 5.72, *SD* = 1.21) and Enjoyment (*M* = 5.62, *SD* = 1.15) standing out. Skewness and kurtosis values remained within acceptable ranges, indicating an adequate data distribution.

Regarding reliability, the Attitudinal Dropout dimension presented a low alpha (α = .43), so it was eliminated as its internal consistency could not be improved. For Environmental and Social Dropout, removing item 10 increased alpha from .66 to .69, a value considered acceptable in initial research phases[20,21]. Finally, for Personal Dropout, removing item 8 raised alpha from .69 to .72, improving its internal consistency.

Table 1. Descriptive statistics and reliability test of sports dropout dimensions

	M	*SD*	*Skewness*	*Kurtosis*	*α*
Sports Dropout	**2.21**	**.79**	**-.168**	**-.530**	**.78**
Personal	2.25	.82	.095	-.639	.72
Environmental and Social	2.21	.92	-.387	-.902	.69
Sports Motives	**5.25**	**.96**	**-.679**	**.774**	**.92**
Enjoyment	5.62	1.15	-.943	.764	.86
Appearance	4.80	1.44	-.545	-.316	.84
Social	4.35	1.40	-.457	-.387	.75
Fitness/Health	5.72	1.21	-1.173	1.272	.84
Competence	5.56	1.23	-.677	-.430	.88

Note. Factor range: 1-7, *M* = Mean, *SD* = Standard Deviation, *α* = Cronbach's alpha.

Table 2 displays the descriptive statistics for the items of the sports dropout questionnaire, whose values were reverse-coded to maintain consistency between the numerical magnitude of the scale and the degree of agreement, such that higher scores indicate greater agreement. After this recoding, means for personal motives ranged from 1.87 to 2.73, showing low to moderate levels of agreement.

The item "I don't have time" presented the highest mean (*M* = 2.73, *SD* = 0.87), while problems with the teacher (*M* = 1.87, *SD* = 1.06) and lack of enjoyment (*M* = 2.06, *SD* = 1.06) showed lower agreement. Environmental and social motives recorded low means (*M* = 2.12 and 2.17), suggesting a secondary influence on sports dropout.

Table 2. Descriptive statistics of the sports dropout questionnaire items

	M	*DS*	*Skewness*	*Kurtosis*
Personal dropout motives				
1. I don't have time.	2.73	.87	-.183	-.683
4. My expectations were not met.	2.40	.96	-.009	-.982
5. Not being as good an athlete as I thought.	2.45	.97	.023	-.991
6. I don't see myself as sufficiently skilled.	2.43	.99	.118	-1.011
7. I didn't like how the classes were structured.	2.37	1.01	.226	-1.045
9. Others were better than me.	2.13	1.07	.438	-1.121
12. I don't enjoy it, it bores me.	2.06	1.06	.504	-1.074
13. Because I have few opportunities to improve.	2.12	.94	.492	-.644
14. Problems with the teacher.	1.87	1.06	.836	-.701
Environmental and social dropout motives				
11. I couldn't handle the pressure.	2.12	1.03	.439	-1.016
15. Due to competitive stress.	2.17	1.08	.380	-1.175

Note. Factor range: 1-4, M = Mean, SD = Standard Deviation

Table 3 presents the descriptive statistics for the items of the sports motives questionnaire. Overall, the dimensions show high mean scores, reflecting a strong presence of motives for sports participation. Enjoyment motives recorded some of the highest means, notably "Because it makes me happy" (*M* = 6.08, *SD* = 1.37) and "Because I enjoy this activity" (*M* = 5.98, *SD* = 1.39), with negative skewness indicating a clear tendency toward high scores.

Appearance motives showed high mean values (*M* = 5.01 to 5.76), with the exception of item 27 (*M* = 3.58, *SD* = 2.13). Social motives showed moderate to high means, although item 28 obtained the lowest score (*M* = 2.40, *SD* = 1.86). Meanwhile, fitness/health and competence motives again showed high averages and negative skewness. Overall, the results evidence a predominance of enjoyment, health/fitness, and competence as the main motives for practice, while social and appearance motives show greater variability.

Table 3. Descriptive statistics of the sports motives questionnaire items

	M	*DS*	*Skewness*	*Kurtosis*
Sports enjoyment motives				
2. Because it is fun.	5.69	1.50	-1.203	1.005
7. Because I like doing this activity.	6.00	1.32	-1.396	1.520
11. Because it makes me happy.	6.08	1.37	-1.657	2.496
18. Because I think it is interesting.	5.58	1.57	-.949	.164
22. Because I enjoy this activity.	5.98	1.39	-1.433	1.703
26. Because I find this activity stimulating.	5.59	1.58	-1.005	.307
29. Because I like the excitement of participating.	4.42	2.07	-.231	-1.172
Sports appearance motives				
5. Because I want to maintain my weight to have a good image.	5.17	1.92	-.786	-.543
10. Because I want to define my muscles to have a good image.	5.01	1.93	-.628	-.787
17. Because I want to improve my appearance.	5.29	1.83	-.846	-.347
20. Because I want to be attractive to others.	4.01	2.06	-.023	-1.190
24. Because I want to improve my body.	5.76	1.59	-1.281	.848
27. Because I would feel physically unattractive if I don't practice.	3.58	2.13	.255	-1.260
Sports social motives				
6. Because I like being with my friends.	4.84	1.95	-.489	-.948
15. Because I like being with others who are also interested in this activity.	5.07	1.91	-.726	-.613
21. Because I want to meet new people.	4.62	2.01	-.367	-1.050
28. To seek acceptance from others.	2.40	1.86	1.185	.261
30. Because I like spending time with others doing this activity.	4.85	2.08	-.547	-.997
Sports fitness/health motives				
1. Because I want to be in good physical shape.	5.84	1.45	-1.219	.930
13. Because I want to have more energy.	5.87	1.42	-1.278	1.179
16. Because I want to improve my cardiovascular fitness.	5.27	1.74	-.808	-.147
19. Because I want to maintain my physical strength to live healthily.	5.84	1.51	-1.339	1.228
23. Because I want to maintain my physical health and well-being.	5.82	1.54	-1.309	1.066
Sports competence motives				
3. Because I like engaging in activities that are physically challenging.	5.08	1.80	-.637	-.661
4. Because I want to develop new skills.	5.81	1.44	-1.157	.666
8. Because I want to improve the skills I have.	5.75	1.58	-1.247	.852
9. Because I like challenges.	5.38	1.66	-.872	.002
12. Because I want to maintain my current skill level.	5.83	1.46	-1.135	.693
14. Because I like activities that are physically challenging.	5.36	1.73	-.770	-.416
25. Because I want to be in good shape to carry out my activities.	5.73	1.55	-1.205	.775

Note. Factor range: 1-7, M = Mean, SD = Standard Deviation.

Figure 2 shows the revised structure of the Sports Dropout Motives Questionnaire. Based on reliability analysis, items 8 and 10 were eliminated, and the attitudinal dimension was discarded due to its low internal consistency (α = .43). These modifications improved the alpha coefficients for the personal and environmental-social dimensions, maintaining a factor structure consistent with the theoretical model.

The higher-order unifactorial model showed excellent comparative fit indices (*NFI* = .99, *NNFI* = .99, *CFI* = .99), while absolute fit indices showed moderate fit (X^2 = 363.02, p < .001; X^2/df = 8.44; *RMSEA* = .11)[22,23]. However, standardized factor loadings were high and significant (p < .001), supporting the convergent validity of the model[24,25]. Overall, although absolute fit was limited, the refinement of the instrument strengthened its factor structure and supports its utility for assessing sports dropout motives[26].

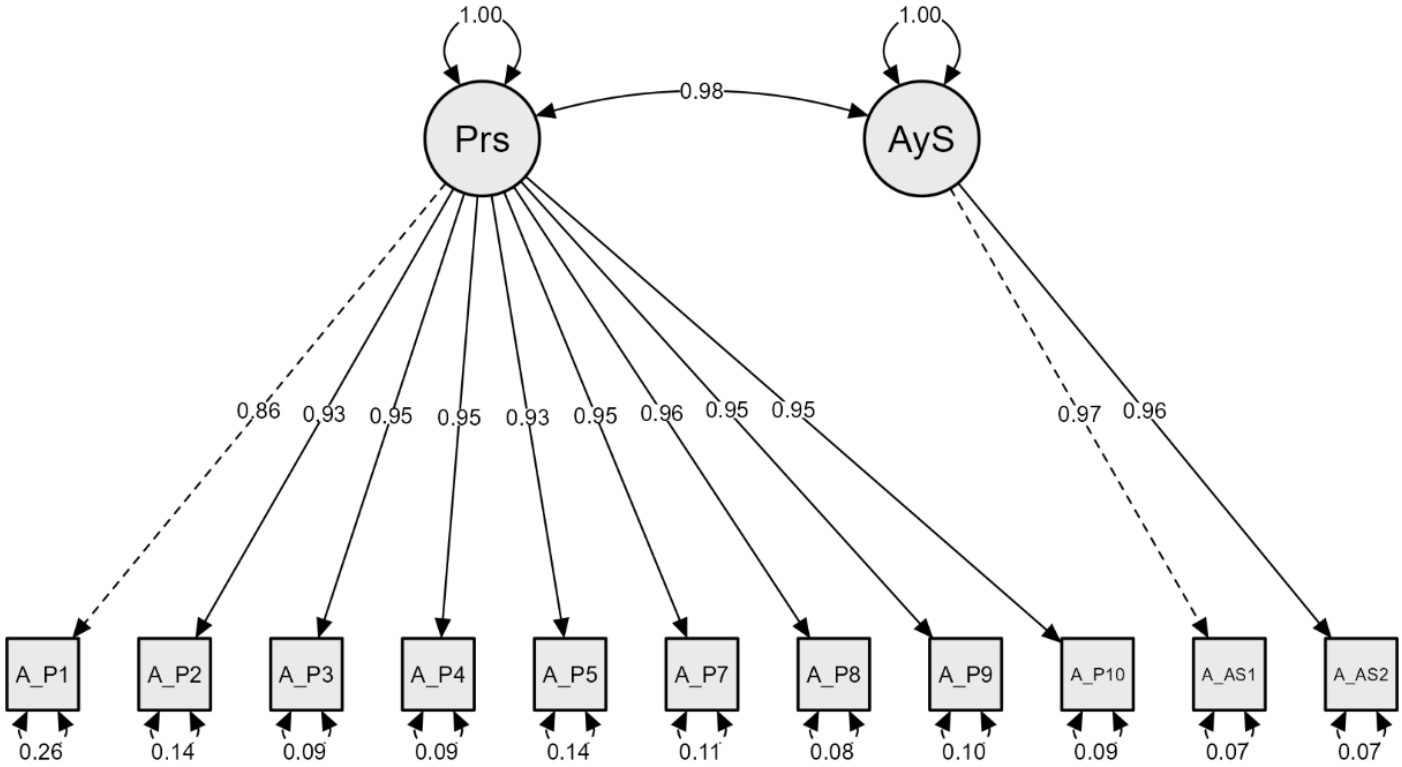

Figure 2. CFA of the Sports Dropout Motives Questionnaire
Note: Prs = Personal dropout motives; AyS = Environmental and social dropout motives.

Figure 3 shows the structure of the Sports Practice Motives Questionnaire, composed of five second-order latent factors (enjoyment, appearance, social, fitness/health, and competence) and 30 observed variables. The higher-order unifactorial model showed adequate fit (X^2 = 1255.31, p < .001; X^2/df = 3.42; df = 367; *NFI* = .99; *NNFI* = .99; *CFI* = .99; *RMSEA* = .06). Comparative fit indices indicated excellent fit (≥ .95)[24,27], while absolute fit indices (X^2/df and *RMSEA*) fell within acceptable ranges[22,28]. Overall, the model showed robust fit. Furthermore, factor loadings were high (.92 to .99) and significant (p < .001), supporting the reliability of the items and the validity of the proposed dimensions[23,26].

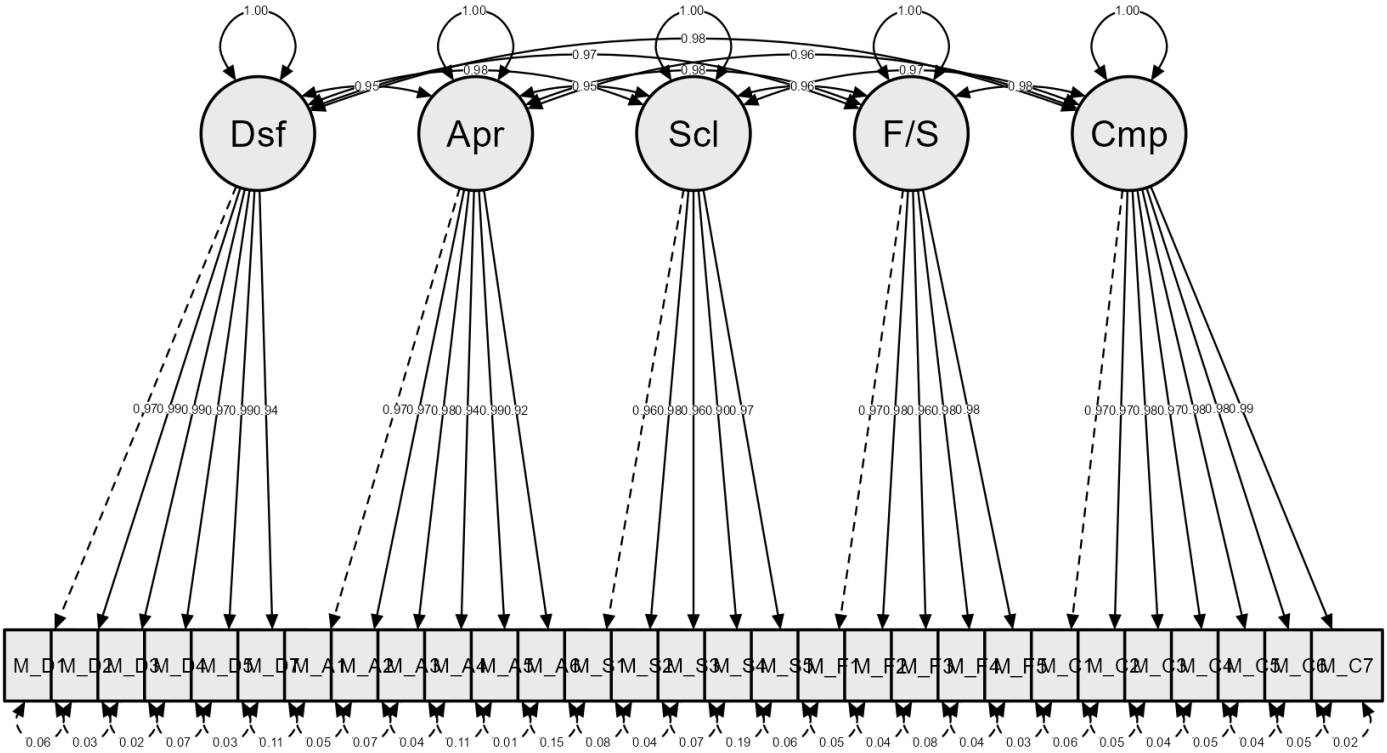

Figure 3. CFA of the Sports Practice Motives Questionnaire *Note*: Dsf = Sports enjoyment motives; Apr = Sports appearance motives; Scl = Sports social motives; F/S = Sports fitness/health motives; Cmp = Sports competence motives.

DISCUSSION

The aim of this study was to determine the prevalence of motives for sports participation and dropout among adolescents, considering personal, motivational, and contextual factors. Overall, the results confirm that adolescence constitutes a critical stage for continuity in physical activity and sports, as only 43% of participants reported currently engaging in some activity, while 50% indicated they had dropped out and 7% had never participated. These data are consistent with previous studies and with national reports showing a progressive decline in physical activity during this developmental stage[1,2].

Regarding motives for sports dropout, the results show a moderate presence of personal and environmental-social factors, without a clearly predominant motive. The highest levels of relative agreement were observed mainly in personal factors, such as perceived lack of time and self-perception of low competence, while other motives, such as lack of enjoyment or problems with the teacher or coach, showed lower levels of agreement. These findings suggest that dropout results from a combination of personal and contextual factors, rather than isolated external barriers[6,16].

From the perspective of achievement goal theory, it has been noted that motivational climates oriented toward normative performance and social comparison increase the risk of dropout, especially in adolescents with low perceived competence[3]. In this regard, the relevance of personal factors observed in this study reinforces the importance of creating contexts that favor a task orientation and the development of perceived competence. Furthermore, it has been shown that the motivational climate promoted by teachers and coaches influences sports adherence, even when conflicts with the teacher are not expressed as the main explicit reason for dropout[8].

Beyond explicit reasons for dropout, it is essential to consider the role of emotional and identity variables that operate less visibly but have a significant impact on sports continuity. Competitive anxiety, often linked to contexts where social comparison and performance pressure predominate, can erode enjoyment and generate aversive experiences associated with sports practice[8]. Likewise, perceived pressure from parents and coaches (often well-intentioned) can be internalized as excessive demands, negatively affecting self-determined motivation and increasing the risk of dropout[12]. On the other hand, physical and body identity processes acquire special relevance during adolescence, a stage in which body self-perception and conformity to beauty stereotypes influence disposition toward physical activity, particularly among girls[15]. Although these factors are not always expressed as explicit reasons for dropout in standardized questionnaires, they constitute significant barriers that need to be addressed in sports and school environments.

Conversely, motives for sports practice showed high scores, particularly in the dimensions of fitness/health, enjoyment, and competence. These results align with evidence indicating that intrinsic motivation, based on enjoyment, personal interest, and perceived health benefits, is associated with greater persistence in physical activity[4,5,9,10]. Likewise, the high valuation of competence motives suggests that challenge and skill development can foster adherence when integrated into appropriate motivational contexts.

In contrast, social and appearance motives showed greater variability across items and lower levels of agreement in some cases, such as seeking social acceptance, which coincides with previous research indicating that these factors do not always constitute the main driver of sports practice[11,13].

Although the present study did not conduct a sex-disaggregated analysis, the specialized literature consistently indicates that adolescent girls present a

higher risk of sports dropout compared to their male peers[12-16]. This phenomenon has been associated with multiple factors, including greater pressure regarding physical appearance, internalization of gender stereotypes that restrict female participation in certain sports disciplines, and lower perceived competence, often influenced by motivational climates oriented toward normative performance[13]. The results of this study, which show a high valuation of appearance motives among adolescents in general, take on a critical dimension when considering their differential impact on girls. Future analyses should delve into these differences to design interventions that specifically address the barriers faced by adolescent girls in the sports field.

Similarly, recent research has proposed considering personality variables for a broader understanding of sports dropout in young people[14].

From an applied perspective, it is relevant to consider that motives for practice may vary depending on the type of sport practiced and the level of involvement (competitive versus recreational). Although the present study did not differentiate between sports modalities or levels of practice, previous research suggests that team sports versus individual sports, as well as competitive versus recreational contexts, can modulate the relevance of factors such as competence, enjoyment, or social pressure[9-11]. This distinction is of particular interest for the design of specific programs in school and out-of-school settings, as it would allow intervention strategies to be tailored to the particular characteristics of each modality and level of demand.

Furthermore, the results underscore the need to design sports and school programs that prioritize enjoyment, personal improvement, and perceived competence, promoting task-oriented motivational climates. In this sense, it is essential to strengthen the pedagogical and motivational training of teachers and coaches, given their role in creating positive and sustainable sports experiences[8].

From an intervention perspective, the findings of this study point toward concrete strategies that teachers and coaches can implement to promote sports adherence. First, promoting a task-oriented motivational climate involves emphasizing personal improvement, effort, and learning over social comparison and normative outcomes[3,8]. This can be achieved through individualizing goals, publicly valuing personal progress, and reducing comments that compare performance among peers. Second, autonomy support (a central component of self-determination theory) can be fostered by offering choices within activities (e.g., selecting the type of exercise, role within a team, or level of challenge), providing clear rationales for required tasks, and acknowledging students' feelings when they express frustration or dislike[4]. Third, positive feedback focused on effort and progress, rather than emphasizing the final outcome or comparison with others, helps strengthen perceived competence and enjoyment[8]. Finally, designing tasks that allow for experiencing success regardless of skill level (through difficulty adaptation or role diversification) is essential to avoid the early exclusion of those adolescents with lower perceived competence. These strategies, implemented systematically in school and out-of-

school contexts, can significantly contribute to reducing sports dropout during adolescence.

In the realm of educational and physical activity promotion policies, the findings of this study underscore the need to implement strategies that transcend the exclusively normative or performance-based approach, so frequent in school and sports contexts. The evidence presented suggests that institutional programs (both state and federal) should prioritize the development of task-oriented motivational climates, continuous training for teachers and coaches in strategies to support autonomy and perceived competence, and the creation of environments that foster enjoyment as the central axis of the sports experience. Likewise, it is advisable that physical activation policies consider the diversity of adolescent motivations, avoiding homogeneous approaches and recognizing the importance of factors such as self-perception and social support, especially in populations at higher risk of dropout, such as adolescent girls.

In conclusion, the motives for sports practice and dropout in adolescents are complex and multifactorial processes, in which intrinsic motivation, perceived competence, and motivational climate play a central role. Addressing these factors comprehensively is key to promoting adherence to physical activity and the physical and psychological well-being of this population[7].

LIMITATIONS AND FUTURE DIRECTIONS

The cross-sectional design of the study limits the possibility of establishing causal relationships between motives for practice and sports dropout. Likewise, the use of self-reports and the delimitation of the sample to a specific population restrict the generalizability of the results. An additional limitation is that no differentiation was made between types of sport (individual vs. team) nor between levels of practice (competitive vs. recreational), aspects that could modulate motivational and dropout patterns. Furthermore, although the theoretical framework and literature indicate significant sex differences in motives for practice and dropout, the present study did not include disaggregated analyses that would allow for a deeper exploration of this dimension. Future research should consider longitudinal designs and analyses differentiated by sex, type of sporting activity, and level of involvement to deepen understanding of these processes and guide the design of more specific interventions in school and out-of-school contexts.

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REFERENCES

1. Granero-Gallegos A, Baena-Extremera A, Pérez-Quero FJ, Ortiz-Camacho MM, Bracho-Amador C. Motivational profiles of high school students in physical education. *J Sports Sci Med*. 2012;*11*(4):614-23.
2. Secretaría de Salud. Cartilla Mexicana de Actividad Física. Ciudad de México: Gobierno de México; 2019.
3. Cervelló EM, Santos-Rosa FJ. Motivación en las clases de educación física: un estudio de la perspectiva de las metas de logro en el contexto educativo. *Rev Psicol Deporte.* 1995;*4*(1):51-70.
4. Ryan RM, Deci EL. Intrinsic and extrinsic motivations: classic definitions and new directions. *Contemp Educ Psychol.* 2000;*25*(1):54–67. doi:10.1006/ceps.1999.1020.
5. Ryan RM, Frederick CM, Lepes D, Rubio N, Sheldon KM. Intrinsic motivation and exercise adherence using the MPAM-R. *J Sport Exerc Psychol.* 1997;*19*(1):1-18.
6. Macarro Moreno J, Romero Cerezo C, Torres Guerrero J. Motivos de abandono de la práctica de actividad físico-deportiva en los estudiantes de Bachillerato de la provincia de Granada. *Rev Educ*. 2010;*353*:495–519.
7. Torregrosa M, Ramis Y, Pallarés S, Azócar F, Selva C. Olympic athletes back to retirement: A qualitative longitudinal study. *Psychol Sport Exerc*. 2015;*21*:50–56. doi:10.1016/j.psychsport.2015.03.003.
8. García-Calvo T, Cervelló E, Jiménez R, Iglesias D, Moreno-Murcia J. Clima motivacional y su relación con la educación física. *Rev Psicol Deporte*. 2010;*19*(1):123–38.
9. Antunes H, Rodrigues A, Sabino B, Alves R, Correia AL, Lopes H. The effect of motivation on physical activity among middle and high school students. *Sports* (Basel). 2024;*12*(6):154. doi:10.3390/sports12060154.
10. Méndez-Urresta I, Martínez-Salazar C, López-Walle J, Salazar-Rojas W. Psychometric properties of the Grit Scale in adolescent martial artists. *J Hum Sport Exerc*. 2022;*17*(4):823–34. doi:10.14198/jhse.2022.17.4.09.
11. Castro-Sánchez M, Zurita-Ortega F, Chacón-Cuberos R, Martínez-Martínez A. Motivation and physical-sport participation in adolescents: gender differences. *Child Youth Serv Rev*. 2016;*61*:283–9. doi:10.1016/j.childyouth.2015.12.014.
12. Portela-Pino I, López-Castedo A, Martínez-Patiño MJ, Valverde-Esteve T, Domínguez-Alonso J. Gender differences in motivation and barriers for the practice of physical exercise in adolescence. *Int J Environ Res Public Health*. 2019;*17*(1):168. doi:10.3390/ijerph17010168
13. Monteiro D, Jacinto M, Cid L, Teixeira DS, Matos R, Amaro N, Antunes R, Rodrigues F. Examining the pivotal motivational elements that influence an individual's commitment to sports. *Motricidade*. 2024;*20*(S1). doi:10.6063/motricidade.31623.

14. Fathirezaie Z, Badicu G, Yagin FH, Aghdasi M, Zamani Sani SH, Abbaspour K, Ballı ÖM, Entezar S, Ardigò LP. Personality and motivation of physical activity in adolescent girls: effects of perceived parental support and social physical anxiety. *BMC Public Health*. 2024;*24*(1):799. doi:10.1186/s12889-024-18060-5.
15. Moreno-Vitoria L, Cabeza-Ruiz R, Antón-González L, Pellicer-Chenoll M. Factors influencing sports dropout rate among adolescent girls: a study on self-perception and sports identity. *Retos*. 2025;*70*:149–60. doi:10.47197/retos.v70.113145.
16. Tárrega-Canós J, Alguacil M, Parra-Camacho D. Análisis de la motivación hacia la práctica de actividad física extraescolar en educación secundaria. *Multidiscip J Educ Res*. 2018;*8*(3):259–80. doi:10.17583/remie.2018.3754.
17. Calculator.net. Sample size calculator [Internet]. 2024 [cited 2026 Mar 30]. Available from: https://www.calculator.net/sample-size-calculator.html
18. Macarro Moreno J, Romero Cerezo C, Torres Guerrero J. Motivos de abandono de la práctica de actividad físico-deportiva en los estudiantes de Bachillerato de la provincia de Granada. *Rev Educ*. 2010;*353*:495–519.
19. Moreno JA, Cervelló E, Martínez A. Validación de la Escala de Medida de los Motivos para la Actividad Física-Revisada en españoles: diferencias por motivos de participación. An Psicol. 2007;23(1):167–76.
20. Nunnally JC, Bernstein IH. *Psychometric theory*. 3rd ed. New York: McGraw-Hill; 1994.
21. Schmitt N. Uses and abuses of coefficient alpha. *Psychol Assess*. 1996;*8*(4):350–3. doi:10.1037/1040-3590.8.4.350.
22. Schermelleh-Engel K, Moosbrugger H, Müller H. Evaluating the fit of structural equation models: tests of significance and descriptive goodness-of-fit measures. *Methods Psychol Res*. 2003;*8*(2):23–74.
23. Byrne BM. *Structural equation modeling with AMOS: basic concepts, applications, and programming*. 3rd ed. New York: Routledge; 2016.
24. Hu LT, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Struct Equ Modeling*. 1999;*6*(1):1–55. doi:10.1080/10705519909540118.
25. Kline RB. *Principles and practice of structural equation modeling*. 4th ed. New York: The Guilford Press; 2016.
26. Brown TA. *Confirmatory factor analysis for applied research*. 2nd ed. New York: The Guilford Press; 2015.
27. Marsh HW, Hau KT, Wen Z. In search of golden rules: comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu & Bentler's (1999) findings. Struct *Equ Modeling.* 2004;*11*(3):320–41. doi:10.1207/s15328007sem1103_2.

28. MacCallum RC, Browne MW, Sugawara HM. Power analysis and determination of sample size for covariance structure modeling. *Psychol Methods*. 1996;*1*(2):130–49. doi:10.1037/1082-989X.1.2.130.