Life skills in amateur beach volleyball athletes: a comparative analysis by age group and practice time

Habilidades para la vida en deportistas amateurs de voleibol de playa: un análisis comparativo por grupo de edad y tiempo de práctica

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Abstract

Introduction: Sport is recognized as a favorable environment for the development of transferable psychosocial skills; however, scientific production involving amateur beach volleyball athletes remains limited.
Objective: To compare the perception of the development of life skills in amateur beach volleyball athletes according to age group and years of practice.
Methods: This cross-sectional, descriptive-analytical study included 238 amateur athletes, of whom 52.9% were male, with a median age of 28 years and a median of 10 years of sports experience. A sociodemographic questionnaire and the Life Skills in Sport Scale (P-LSSS), composed of 43 items, distributed across eight dimensions, were administered. Participants were stratified by median into two independent groups according to age (< 28 and ≥ 28 years) and time spent practicing the sport (< 10 and ≥ 10 years). Comparisons were performed using the Mann-Whitney U test, adopting a significance level of $p<0.05$.
Results: Athletes aged 28 or older showed significantly higher scores in goal setting ($p = 0.023$; $r = 0.15$), problem-solving and decision-making ($p = 0.014$; $r = 0.17$), emotional skills ($p = 0.004$; $r = 0.23$), time management ($p = 0.012$; $r = 0.18$), and communication ($p = 0.020$; $r = 0.16$). Similarly, athletes with ≥ 10 years of practice also obtained higher scores in these dimensions ($p \leq 0.049$; $r = 0.12–0.22$).
Discussion: Age and sports experience showed consistent associations with self-regulatory skills.
Conclusion: Older age and a longer practice time were associated with higher levels of life skills in the investigated context.

Keywords

Psychosocial aspects in sports; sports psychology; volleyball players.

Resumen

Introducción: El deporte ha sido reconocido como un entorno favorable para el desarrollo de habilidades psicosociales transferibles; sin embargo, la producción científica relacionada con atletas amateurs de voleibol de playa aún es limitada.
Objetivo: Comparar la percepción del desarrollo de habilidades para la vida en atletas amateurs de voleibol de playa según grupo de edad y tiempo de práctica.
Métodos: Este estudio transversal, descriptivo-analítico, incluyó a 238 atletas amateurs, de los cuales el 52,9% eran hombres, con una mediana de edad de 28 años y una mediana de 10 años de experiencia deportiva. Se utilizó un cuestionario sociodemográfico y la Escala de Habilidades para la Vida en el Deporte (P-LSSS), compuesta por 43 ítems distribuidos en ocho dimensiones. Los participantes se estratificaron por mediana en dos grupos independientes según la edad (< 28 y ≥ 28 años) y el tiempo de práctica (< 10 y ≥ 10 años). Las comparaciones se realizaron mediante la prueba U de Mann-Whitney, con un nivel de significancia de $p < 0,05$.
Resultados: Los atletas de 28 años o más mostraron puntuaciones más altas en establecimiento de metas ($p = 0,023$; $r = 0,15$), resolución de problemas y toma de decisiones ($p = 0,014$; $r = 0,17$), habilidades emocionales ($p = 0,004$; $r = 0,23$), gestión del tiempo ($p = 0,012$; $r = 0,18$) y comunicación ($p = 0,020$; $r = 0,16$). Los atletas con ≥ 10 años de práctica también obtuvieron puntuaciones más altas en estas dimensiones ($p \leq 0,049$; $r = 0,12$-$0,22$).
Discusión: La edad y la experiencia deportiva mostraron una asociación consistente con las habilidades de autorregulación. Conclusión: La edad avanzada y un mayor tiempo de práctica se asociaron con niveles más altos de habilidades para la vida en el contexto investigado.

Palabras clave

Aspectos psicosociales en el deporte; psicología del deporte; jugadores de voleibol.

Introduction

Sport is widely recognized as a privileged context for the development of psychosocial skills, that go beyond athletic performance and extend to different domains of daily life. Within the scope of Positive Youth Development (PYD), the role of so-called life skills stands out, understood as transferable capabilities that help individuals to effectively cope with personal, social, academic, and professional demands (Lerner et al., 2005). Although this framework was originally developed for young populations, growing evidence indicates that such skills continue to be shaped and redefined throughout adult life, especially in non-professional sports contexts (Holt & Neely, 2011).

Life skills in sport include competencies such as teamwork, leadership, communication, emotional control, goal setting, decision-making, and time management (Danish & Taylor, 1983). These skills do not emerge automatically from sports practice, but are developed from the interaction between individual characteristics, accumulated experiences, and the social environment in which the sport is experienced (Gould & Carson, 2008). In this sense, amateur sport assumes a unique role, as it combines competitive demands with greater autonomy and age diversity, and less institutional pressure when compared to high-performance sport (Eime et al., 2013).

In this sense, when athletes perceive meaning, challenge, and learning opportunities in their sporting experiences, sports practice can favor the development of life skills (Carimé & Santos, 2019). Instruments such as the Life Skills Scale for Sport (LSSS), developed by Cronin and Allen (Cronin & Allen, 2018), have allowed important advances in the measurement of these skills, consolidating empirical evidence on their association with well-being, sports engagement, and pro-social behaviors (Nascimento Junior et al., 2020).

Despite advances in the literature, much of the existing research focuses on young athletes, with less attention paid to amateur adult athletes, especially in sports practiced outside of formal club and federation structures (Cronin & Allen, 2018). This gap is relevant, considering that amateur sport represents one of the most prevalent forms of sports involvement in adult life and can function as a continuous space for psychosocial learning (Mossman & Cronin, 2019). Furthermore, the self-managed nature of these practices can distinctly influence the development of life skills.

Evidence suggests that sociodemographic and sports variables may be associated with different levels of perceived development of life skills (Fraser-Thomas et al., 2005). Age-related differences have been observed in domains such as social skills, communication, and leadership, possibly reflecting sociocultural patterns and differentiated sports experiences (Freire et al., 2021). Moreover, the accumulation of sports experiences can contribute to greater emotional maturity, problem-solving ability, and time management (Bean & Forneris 2016).

In the Brazilian context, studies with practitioners of team sports indicate positive associations between age, practice time, and specific skills, such as teamwork and goal setting (Ciocanel et al., 2017). However, the results are still heterogeneous and depend on the sporting context analyzed, the sport, and the level of organization of the practice. In sports practiced in open environments and with high athlete autonomy, such as beach volleyball, these relationships remain underexplored.

Amateur beach volleyball is characterized by intense social interaction, cooperation in small groups, rapid decision-making, and exposure to multiple competitive contexts, which can enhance the development of life skills. In addition, the wide age range of practitioners and the diversity of time involved in sport make this scenario particularly suitable for investigating differences associated with individual characteristics and sporting trajectories.

In adult amateur sport, self-regulatory skills, such as goal setting, emotional regulation, and time management may assume particular relevance due to the need to reconcile sport participation with occupational, academic, family, and social responsibilities. Unlike youth sport contexts, adult amateur athletes often engage in sport voluntarily and autonomously, which could intensify the use of organizational and self-management strategies during training and competition routines (Ouaddou et al., 2026). Furthermore, the presence of coaches and structured training environments may influence how these life skills are intentionally stimulated and transferred to contexts beyond sport. Given these considerations, the present study aimed to compare the development of life skills in amateur beach volleyball athletes according to age group and sports practice time. By exploring these comparisons in a sample of amateur

adult athletes, the study seeks to contribute to deeper understanding of the role of sport as a space for psychosocial development throughout life, expanding national evidence on this topic.

Method

Study Design

This study is characterized as cross-sectional, descriptive, and analytical in nature, with a quantitative approach, according to the methodological assumptions described by Thomas, Nelson, and Silverman (2012). This design allows for the description of the sample characteristics and the comparison of life skills based on sociodemographic and sports variables, without establishing causal relationships.

Participants

The study included 238 amateur beach volleyball athletes of both sexes, with a median age of 28 [19-35], residing in municipalities in the state of Paraná, Brazil. The sample consisted of athletes who competed exclusively at the amateur level, without professional ties to clubs, federations, or formal leagues. The participants were selected in a non-probabilistic manner, by convenience, based on their agreement to participate and availability during the data collection period.

Athletes who had been practicing beach volleyball for at least 6 months, who regularly participated in training for the sport, and who were at least 18 years of age were included in the study, ensuring minimum conditions for participation in the research. The regularity of sports practice was considered based on the participants' self-report.

Most participants reported involvement in organized amateur training contexts, frequently accompanied by coaches or instructors. The researchers did not perform any formal pedagogical intervention. The amateur nature of the practice was characterized by non-professional participation, autonomy in sports engagement, and participation in recreational and regional competitive events.

Athletes who submitted incomplete questionnaires or inconsistent answers, or who did not fully meet the previously established inclusion criteria were excluded from the sample. After applying these criteria, all eligible participants were considered for the statistical analyses of the study. Considering the use of hybrid data collection (in-person and digital), procedures were adopted to identify and exclude possible duplicate responses, to ensure that each participant was included only once in the analyses.

Instruments

Initially, a sociodemographic and sports questionnaire, specifically designed for this study, was applied to characterize the participants and provide relevant contextual information for the interpretation of the results. The instrument included questions regarding sex, age, length of time practicing beach volleyball (in months), and weekly frequency of training or games.

The development of life skills through sports practice was assessed using the Life Skills in Sport Scale (P-LSSS), developed by Cronin and Allen (2017) and adapted and validated for the Brazilian context by Nascimento Junior et al. (2020).

The P-LSSS consists of 43 items, organized into eight dimensions, which assess different psychosocial competencies associated with positive development in sport: teamwork, goal setting, social skills, problem-solving and decision-making, emotional skills, leadership, time management, and communication. These items are used to investigate the athletes' perception of the degree to which these skills are developed from their sporting experience. Responses are recorded on a five-point Likert scale, ranging from 1 (not at all) to 5 (very much), with higher scores indicating a greater perception of developing life skills through sport.

Data Collection Procedures

Data collection was carried out in person and digitally, in a standardized manner. In the in-person modality, the instruments were applied in an appropriate environment, before or after sports activities, with the accompaniment of the researchers, ensuring adequate conditions for completing the question-

naires and clarifying any doubts. In parallel, part of the collection took place remotely, through an electronic form created on the Google Forms platform. The link to the form was made available to eligible athletes, and contained the same instructions and items as the instruments applied in person.

In both data collection modalities, participants were previously informed about the objectives of the research and only answered the questionnaires after reading and accepting the Informed Consent Form, available in printed or digital format. The procedures adopted sought to ensure the equivalence of the application conditions, the confidentiality of the information, and the autonomy of the participants.

The study was conducted in accordance with the national ethical guidelines for research involving human subjects, as per Resolution No. 466/2012 of the National Health Council. The project was approved by the Research Ethics Committee of the State University of Londrina, under opinion number 5.017.741, CAAE number 13654719.2.0000.5231.

Data Analysis

Data analysis was performed using descriptive and inferential statistics. Initially, the normality of the distribution of variables was verified using the Shapiro-Wilk test, which showed the absence of a normal distribution for the life skills scores. Thus, continuous variables were described by median and interquartile range, while categorical variables were presented by absolute and relative frequencies.

For comparative analyses, participants were organized into two grouping criteria, each consisting of two independent groups: (a) age range, based on the median of the age values, to categorize athletes as younger (< 28 years) and older (≥28 years); and (b) sports practice time, also based on the median, considering athletes with less practice time (< 10 years) and with more practice time (≥ 10 years).

Comparisons between groups regarding life skills scores were performed exclusively using the Mann-Whitney U test. The effect sizes of the observed differences were estimated using the r coefficient, calculated from the Z-value of the Mann-Whitney U test, and interpreted according to the reference values (small = 0.10; moderate = 0.30; large = 0.50). All statistical analyses were conducted using IBM SPSS 29 software, adopting a significance level of < 0.05.

Results

The study included 238 amateur beach volleyball athletes of both sexes, with a median age of 28 years [19–35] and a median sports practice time of 10 years [5–15]. Of the total sample, 126 athletes (52.9%) were male and 112 (47.1%) were female. The median weekly frequency of sports practice was 3 sessions per week [2-4]. Sociodemographic and sports characteristics are presented in Table 1.

Table 1. Characterization of sociodemographic and sports variables of amateur beach volleyball athletes (n = 238).

Variable	Md [Q1 – Q3] or n=238 (100%)
Sex	-
Female	112 (47.1%)
Male	126 (52.9%)
Marital status	-
Single	154 (64.7%)
Married/Common-law marriage	72 (30.3%)
Divorced	12 (5.0%)
Education	-
Completed high school	64 (26.9%)
Incomplete higher education	71 (29.8%)
Completed higher education	83 (34.9%)
Postgraduate studies	20 (8.4%)
Occupational status	-
Employed	162 (68.1%)
Student	48 (20.2%)
Self-employed	28 (11.7%)
Time spent practicing sports (years)	10 [5 -15]
Weekly practice frequency (sessions/week)	3 [2 - 4]
Predominant practice category	-
Double	118 (49.6%)
Quartet	74 (31.1%)
Mixed	46 (19.3%)

Participation in competitions in the last year	
Yes	181 (76.1%)
No	57 (23.9%)

Note: Data presented as absolute (n) and relative (%) frequencies for categorical variables and as Md [Q1 – Q3] for continuous variables; Predominant practice category: category in which the athlete participates most frequently, the athlete may participate in more than one category; Participation in competitions in the last year: self-reported participation in competitive events.

The athletes demonstrated regular involvement in the sport, characterized by prolonged sporting experience, consistent weekly practice frequency, and recurring participation in amateur competitions. Diversity was also observed in the ways the practice is organized, encompassing different competitive categories.

In the comparisons of life skills according to age group (Table 2), significant differences were found between the groups ($p<0.05$). The results indicated that athletes aged 28 or older have greater perceptions than their peers aged under 28 years, of the development of life skills related to self-regulation, such as: goal setting ($p=0.023$), problem solving ($p=0.014$), emotional skills ($p=0.004$), time management ($p=0.012$), and communication ($p=0.020$).

In addition, comparative analysis of life skills indicated that older athletes presented significantly higher scores in some specific dimensions of the P-LSSS, especially those related to self-regulation, namely: goal setting, emotional skills, time management, communication, and problem-solving and decision-making, as shown in Table 2.

Table 2. Comparisons of life skills in amateur beach volleyball athletes, divided by age group.

Variable P-LSSS (Md [Q1 – Q3])	Age range		
	< 28 years (n= 126)	≥28 years (n=112)	p (r)
Teamwork	4.2 [3.8 - 4.6]	4.3 [3.9 - 4.7]	0.198 (0.08)
Goal setting	3.9 [3.4 - 4.3]	4.2 [3.8 - 4.6]	0.023* (0.15)
Social skills	4.1 [3.7 - 4.5]	4.1 [3.7 - 4.5]	0.114 (0.10)
Problem solving and decision making	3.8 [3.3 - 4.2]	4.1 [3.6 - 4.4]	0.014* (0.17)
Emotional skills	3.7 [3.2 - 4.1]	4.1 [3.6 - 4.5]	0.004* (0.23)
Leadership	4.0 [3.5 - 4.4]	4.1 [3.6 - 4.6]	0.287 (0.06)
Time management	3.6 [3.1 - 4.0]	4.0 [3.5 - 4.4]	0.012* (0.18)
Communication	3.9 [3.4 - 4.3]	4.2 [3.8 - 4.6]	0.020* (0.16)

Note: Data are presented as median [interquartile range] of mean scores on the dimensions of the Life Skills in Sport Scale (P-LSSS); Comparisons between groups were performed using the Mann-Whitney U test; $p<0.05$ statistically significant values; r: effect size calculated from the Z-value of the Mann-Whitney U test, interpreted as small (0.10), moderate (0.30), and large (0.50).

It was observed that older athletes presented significantly higher scores in some specific dimensions of the P-LSSS, namely: goal setting ($p=0.023$), problem solving and decision making ($p=0.014$), emotional skills ($p=0.004$), time management ($p=0.012$), and communication ($p=0.020$). The results of the comparison of life skills according to the time of sports practice are presented in Table 3.

When comparing life skills as a function of practice time (Table 3), significant differences were identified between the groups ($p<0.05$). The results showed that athletes with 10 or more years of experience in sport had greater perceptions regarding the development of life skills in the dimensions of goal setting ($p=0.006$), problem solving ($p=0.018$), emotional skills ($p=0.049$), time management ($p=0.014$), and communication ($p=0.021$).

Table 3. Comparisons of life skills according to the length of time practicing sports in amateur beach volleyball athletes (n = 238).

Variable P-LSSS (Md [Q1 – Q3])	Practice time		
	< 10 years (n=105)	≥10 years (n=133)	p (r)
Teamwork	4.0 [3.6 - 4.5]	4.2 [3.5 - 4.7]	0.221 (0.09)
Goal setting	3.6 [3.2 - 4.2]	4.0 [3.8 - 4.5]	0.006* (0.19)
Social skills	4.1 [3.7 - 4.4]	4.2 [3.6 - 4.6]	0.079 (0.11)
Problem solving and decision making	3.4 [3.0 - 4.0]	3.9 [3.5 - 4.2]	0.018* (0.22)
Emotional skills	3.5 [3.2 - 4.2]	3.9 [3.3 - 4.5]	0.049* (0.12)
Leadership	4.1 [3.4 - 4.5]	4.2 [3.4 - 4.4]	0.246 (0.05)
Time management	3.6 [3.1 - 4.0]	4.0 [3.5 - 4.2]	0.014* (0.15)
Communication	3.8 [3.5 - 4.1]	4.2 [3.7 - 4.6]	0.021* (0.17)

Note: Data are presented as median [interquartile range] of mean scores on the dimensions of the Life Skills in Sport Scale (P-LSSS); Comparisons between groups were performed using the Mann-Whitney U test; $p<0.05$ statistically significant values; r: effect size calculated from the Z-value of the Mann-Whitney U test, interpreted as small (0.10), moderate (0.30), and large (0.50).

Regarding practice time, a longer practice time was associated with higher scores in the following P-LSSS skills: goal setting ($p=0.006$), problem-solving and decision-making ($p=0.018$), emotional skills ($p=0.049$), time management ($p=0.014$), and communication ($p=0.021$). Comparisons by age group and practice time indicated a partially convergent pattern in comparisons of life skills, with differences observed mainly in dimensions related to self-regulation. Additionally, comparisons according to sex did not reveal statistically significant differences in any of the life skills dimensions assessed by the P-LSSS ($p > 0.05$).

Discussion

The current study aimed to compare the development of life skills in amateur beach volleyball athletes according to age group and time spent practicing the sport. The results showed that athletes aged 28 or older (Table 2) and with 10 or more years of practice (Table 3) demonstrated a greater perception of developing life skills related to self-regulation (goal setting, problem-solving, emotional skills, time management, and communication). These results seem to indicate that age and experience may be contributing factors to the development and acquisition of life skills through sport.

One of the main findings of this study demonstrated that older athletes (Table 2), and consequently those with greater age-related sports experience, showed higher perceptions regarding the development or acquisition of life skills through sport, especially those related to self-regulation (goal setting, problem-solving, emotional skills, time management, and communication). Thus, in the amateur context of beach volleyball in Paraná, athletes aged 28 or older tend to have a greater repertoire of personal and sporting experiences, aspects that, in turn, can contribute to a better ability to set goals, solve problems, manage time, and deal with their own emotions, as well as to communicate more effectively.

Interestingly, no significant differences were observed in the leadership dimension according to age group or practice time. One possible explanation for this finding is related to the structural characteristics of amateur beach volleyball, which is commonly practiced in pairs or small groups, with shared responsibilities and reduced hierarchical organization during matches and training sessions. In this context, opportunities for leadership may emerge in a more homogeneous manner among athletes, regardless of accumulated experience or age.

Gould and Carson (2008) point out that life skills not only contribute to an individual's performance and success in the sporting context, but also favor their performance in other environments, as these skills are transferred and effectively applied in non-sporting contexts. However, the authors emphasize that such benefits do not automatically result from simply participating in sports programs; it is necessary that the skills be intentionally promoted in appropriate environments, characterized by support from coaches, well-defined rules and responsibilities, and positive social norms.

In practical terms, skills such as goal setting and time management may extend beyond the sporting context and contribute to the organization of occupational routines, academic demands, and personal responsibilities. Likewise, emotional regulation and problem-solving abilities developed during sport participation may support coping strategies in stressful everyday situations, interpersonal conflicts, and professional decision-making processes. These findings reinforce the potential transferability of life skills acquired in amateur sport settings to multiple domains of adult life.

The research developed by Freire et al. (2021) with young participants in sports, with and without disabilities, aimed to compare the perception of the development of life skills through sport. Although the results did not indicate statistically significant differences based on age group, it was observed that athletes over 13.14 years of age showed a greater perception of acquiring life skills compared to younger athletes (under 13.14 years of age). These findings partially corroborate the results of the present study, which also showed greater perceptions among older athletes.

In the study conducted by Melo et al. (2022) with Brazilian university athletes, which aimed to compare basic psychological needs and life skills, the authors identified results distinct from those observed in the present study. The comparative analysis based on age group revealed significant differences only in the leadership dimension, indicating that athletes up to 21.78 years of age showed greater perceptions of developing this skill when compared to athletes aged over 21.78 years. On the other hand, the study conducted by Freire et al. (2023) with schoolchildren practicing futsal in Petrolina-PE partially corroborates the results found in the current work. The findings indicated that athletes over 13 years of age showed greater perceptions regarding the acquisition of life skills related to teamwork and problem-solving, when compared to participants under 13 years of age. These results suggest that advancing age may be associated with greater opportunities for experience, cognitive and socio-emotional maturity, and accumulated practice time, factors that favor the development and perception of life skills.

Another finding identified was the difference in the perception of the development or acquisition of life skills by athletes with more practice time (Table 3), indicating that a longer practice time in the sport seems to be linked to higher perceptions of the development of life skills. In this sense, athletes with 10 or more years of practice appear, during their sporting career, to have internalized more effective strategies for setting goals, solving problems, managing time, regulating their emotions, and communicating, possibly due to prolonged exposure in these contexts.

Eime et al. (2013) reinforce that continuous participation in sports programs provides positive experiences that favor the development of life skills and contribute to the reduction in negative psychological factors, such as anxiety and depression. According to the Skills Development Model, developed by Gould and Carson (2008), sport is configured as a favorable context for teaching life skills, since, in addition to valuing the development of skills, it is socially recognized, arouses the interest of children and adolescents, and provides significant returns for individuals. In this context, the sporting experience itself assumes a central role, being strongly influenced by coaches, who contribute to the creation of motivational climates and the definition of goals.

The findings of the present study partially corroborate the results found in the study conducted by Rodrigues et al. (2023) with young practitioners of collective and individual sports. The authors observed that athletes with more than five years of sports experience showed greater awareness of the acquisition of life skills, especially regarding teamwork, goal setting, time management, and communication.

Additionally, in the research conducted by Freire et al. (2023), although the results did not show statistically significant differences in the comparisons based on the length of practice, it was possible to observe that athletes with more than five years of sports experience had higher scores in all dimensions of skills when compared to their peers with less than five years of practice. Athletes with more time involved in sports tend to experience more challenging situations, favoring the acquisition and perception in the development of life skills.

The study conducted by Freire et al. (2021), aimed to compare the perception of life skills in a sample composed of 147 young athletes from Olympic and Paralympic sports. The results indicated that, when considering the time spent practicing sports, athletes with more than 7.35 years of experience showed greater perceptions in the acquisition of skills such as leadership and communication, compared to those with up to 7.35 years of practice. These findings reinforce that the time spent in sports may be linked to the development and acquisition of life skills, corroborating the literature and, partially, the results of the present study.

Another investigation conducted by Freire et al. (2020), which aimed to compare the perception of the development of life skills in 71 adolescents practicing individual sports, identified results similar to those of the current research. The authors found that athletes with 3.06 years of experience showed greater perceptions in the acquisition of skills related to teamwork, goal setting, leadership, and verbal communication, when compared to those with less sports experience. These results indicate that the length of time spent in the sports context can play an important role in strengthening psychosocial skills, suggesting, in turn, that the sports environment, regardless of the format of the sport, can favor social learning processes and personal development when there is continuity and prolonged engagement.

Regarding sex comparisons, no statistically significant differences were identified between male and female athletes in any of the assessed life skills dimensions. Although the sports psychology literature frequently suggests that sex-related socialization processes may influence psychosocial development in

sport, the present findings appear to indicate that the amateur beach volleyball environment provides relatively similar experiences of interaction, communication, cooperation, and self-regulation for both men and women. The balanced distribution of responsibilities and interpersonal dynamics commonly observed in amateur beach volleyball may partially explain these findings (Wright et al. 2025).

Although the present study presents relevant evidence on life skills in amateur beach volleyball athletes from Paraná, some limitations should be considered. The investigation focused on only one sport, which restricts the generalization of the results to other contexts. Furthermore, the cross-sectional design, with data collection carried out at a single point in time, does not allow for the establishment of cause-and-effect relationships. Therefore, it is suggested that future research should include other modalities, diverse samples, and longitudinal designs, in order to understand possible changes in these life skills over time.

The findings of the current study have relevant practical implications for coaches, instructors, and professionals involved in amateur sport settings. Beyond athletic performance, amateur beach volleyball may represent an important context for the intentional development of transferable psychosocial skills. For athletes with less experience in the sport, pedagogical strategies such as guided reflection after training sessions, collaborative goal-setting routines, shared decision-making tasks, peer communication exercises, and emotional self-monitoring practices may help to accelerate the development of self-regulatory and interpersonal skills. Furthermore, training environments that encourage autonomy, cooperation, and constructive feedback could contribute to optimizing psychosocial development independently of long-term sports experience.

Conclusion

It is concluded that amateur beach volleyball athletes with an older age (≥ 28 years) and longer sports practice time (≥ 10 years) showed higher perceptions regarding the development of life skills. These findings suggest that accumulated experience in the sports context, associated with age, can contribute to the strengthening of relevant psychosocial competencies that go beyond sports practice.

A convergent pattern can be observed between age and practice time, indicating that prolonged involvement in the sport can favor continuous learning processes, internalization of adaptive strategies, and broadening of the perception of one's own personal development. The results show theoretical consistency with the model of life skill development in sport, reinforcing the role of the amateur sports context as a potential space for psychosocial development throughout adulthood.

The findings suggest that the accumulated sports trajectory can function as a space for experimentation and improvement in cognitive, emotional, and behavioral strategies, contributing to a greater perception of competence in domains transferable beyond the sports context. Thus, amateur sport should not be understood solely as a recreational or competitive activity, but also as a potentially formative environment for skills relevant to everyday life. In this perspective, amateur sport should also be understood as a continuous learning environment, in which the sporting trajectory itself may be as relevant as competitive outcomes for personal development across adulthood.

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