

Effectiveness of soccer-based programs for community development: a systematic review and meta-analysis

Eficacia de los programas basados en el fútbol para el desarrollo comunitario: una revisión sistemática y un metaanálisis

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Abstract

Introduction: Soccer-based programs have gained recognition as effective tools for community development, leveraging the universal appeal of sports to foster personal and social growth. These programs address social inequality, youth empowerment, and community cohesion challenges. Purpose: This systematic review and meta-analysis evaluate the effectiveness of soccer-based interventions in promoting personal responsibility, social engagement, and overall well-being.

Methods: Six studies meeting the inclusion criteria were analyzed following PRISMA guidelines. These studies, employing experimental or quasi-experimental designs, provided quantitative data for meta-analysis. Additionally, a qualitative synthesis was conducted to explore the broader impacts of these programs on personal development and social responsibility.

Results: Findings indicate that soccer-based programs significantly enhance personal responsibility, social engagement, and psychological well-being, particularly among youth and marginalized populations. However, challenges like balancing individual autonomy with collective goals and variability in self-esteem and vitality improvements were noted. The meta-analysis demonstrated a small but statistically significant effect size (SMD = 0.21, 95% CI [0.15, 0.28]). High heterogeneity across studies ($I^2 = 100\%$) suggests variability in program design, participant demographics, and contextual factors. Conclusion: Soccer-based programs hold transformative potential for personal and community development, though further refinement is needed. Future research should explore context-specific program designs, incorporate vocational training and Social and Emotional Learning (SEL), and conduct longitudinal studies to assess long-term impacts. Despite inherent challenges, structured soccer-based initiatives remain promising tools for advancing community development goals through sport.

Keywords

Soccer-based programs; social engagement; community development program evaluation.

Resumen

Introducción: Los programas basados en el fútbol han ganado reconocimiento como herramientas eficaces para el desarrollo comunitario, aprovechando el atractivo universal de los deportes para fomentar el crecimiento personal y social. Estos programas abordan la desigualdad social, el empoderamiento de los jóvenes y los retos de cohesión comunitaria.

Propósito: Esta revisión sistemática y meta-análisis evalúan la efectividad de las intervenciones basadas en el fútbol para promover la responsabilidad personal, el compromiso social y el bienestar general.

Métodos: Se analizaron seis estudios que cumplían los criterios de inclusión siguiendo las directrices PRISMA. Estos estudios, que empleaban diseños experimentales o cuasi-experimentales, proporcionaron datos cuantitativos para el meta-análisis. Además, se realizó una síntesis cualitativa para explorar los impactos más amplios de estos programas sobre el desarrollo personal y la responsabilidad social.

Resultados: Los resultados indican que los programas basados en el fútbol mejoran significativamente la responsabilidad personal, el compromiso social y el bienestar psicológico, especialmente entre los jóvenes y las poblaciones marginadas. Sin embargo, se observaron retos como el equilibrio entre la autonomía individual y los objetivos colectivos y la variabilidad en las mejoras de la autoestima y la vitalidad. El metanálisis demostró un tamaño del efecto pequeño pero estadísticamente significativo (DME = 0,21; IC del 95% [0,15; 0,28]). La elevada heterogeneidad entre los estudios (I² = 100%) sugiere variabilidad en el diseño del programa, la demografía de los participantes y los factores contextuales.

Conclusiones: Los programas basados en el fútbol tienen un potencial transformador para el desarrollo personal y comunitario, aunque es necesario perfeccionarlos. La investigación futura debe explorar diseños de programas específicos del contexto, incorporar la formación profesional y el Aprendizaje Social y Emocional (SEL), y llevar a cabo estudios longitudinales para evaluar los impactos a largo plazo. A pesar de los retos inherentes, las iniciativas estructuradas basadas en el fútbol siguen siendo herramientas prometedoras para avanzar en los objetivos de desarrollo comunitario a través del deporte.

Palabras clave

Programas basados en el fútbol; compromiso social; desarrollo comunitario; evaluación de programas.





Introduction

In recent decades, sports-based programs have increasingly been recognized as a tool for promoting social development by addressing complex social issues through the universal appeal of sports. This is exemplified by initiatives within the Sport for Development and Peace (SDP) movement, which utilize sports as a catalyst for positive social change, tackling challenges such as poverty, health disparities, and youth development (Darnell, 2010). These outcomes align with the principles of Positive Youth Development (PYD), which emphasize the development of confidence, competence, and connection, particularly in underserved communities where structured youth engagement is critically needed (Holt et al., 2017; Strachan et al., 2018). Han et al. (2022) revealed that recreational sports play a crucial role in social well-being by enhancing health and facilitating community engagement. Similarly, Reis et al. (2016) analyzed the Vilas Olimpicas program in Brazil and demonstrated how sports can empower communities despite challenges related to limited resources and conflicting program goals. Further evidence indicates that programs integrating essential elements such as life skills training, teamwork, and mentorship not only support personal development but also create collaborative environments where young participants positively contribute to their communities (Newman et al., 2016; Kirby & Kluge, 2022). Effective sports for development initiatives often rely on sustainable local partnerships, comprehensive training for young leaders, and supportive policies that provide long-term resources for program stability (LeCrom et al., 2019; Kochanek et al., 2023). These studies show that the benefits of sports-based programs impact not only individual development but also broader community outcomes. Despite the promising social potential of sports-based initiatives, implementing these programs presents various challenges, including issues of gender equality, cultural relevance, and social marginalization. For example, Costa et al. (2023) investigated skateboarding as an alternative sport that empowers young women by providing inclusive, peer-centered spaces to overcome gender-related barriers. The importance of culturally sensitive approaches is further highlighted in studies involving indigenous populations, where integrating local values and relevant cultural practices helps build trust and ensure that programs resonate with participants (Strachan et al., 2018; Hapeta et al., 2019). These studies demonstrate that culturally informed programs not only enhance engagement but also strengthen the personal relevance of sports participation.

Sports programs also play a crucial role in enhancing social capital and community cohesion. A study by Young et al. (2024) found that these programs can build networks and connections between individuals, which are invaluable in creating social inclusion, especially in vulnerable communities. Furthermore, sports programs specifically designed for indigenous youth can support their positive development by maintaining cultural values, strengthening identity, and boosting self-confidence, as shown in findings by Strachan et al. (2018). Additionally, sports-based programs provide essential support for mental health, creating environments that foster a sense of belonging, autonomy, and positive challenges. This is particularly relevant for youth with disabilities, as discussed in a study by McKinnon et al. (2022) with these diverse advantages, sports-based programs have proven to be multifunctional tools in social development, not only strengthening individuals but also enriching and empowering communities as a whole.

One of the significant sports phenomena impacting social development in Indonesia is the behavior of soccer supporters. Soccer has become an integral part of Indonesian society, significantly influencing social, cultural, and political dynamics, creating various challenges that need serious attention, especially in relation to supporter communities and the wider society (Fuller & Junaedi, 2018). Politicians often leverage the popularity of soccer to strengthen their support base through soccer clubs and supporter organizations, which are sometimes politicized for specific interests (Fuller, 2015; Dorsey & Sebastian, 2013). Additionally, the strong emotional bond between supporters and clubs often triggers violent actions, where aggressive supporter behavior can tarnish the image of soccer as a unifying medium (Setyowati et al., 2023). The tragic incident of riots at Kanjuruhan Stadium in 2022, involving Arema FC supporters and resulting in hundreds of casualties, serves as a stark reminder of the fragility of crowd management in Indonesian soccer (Amin et al., 2024).

Reflecting on these phenomena, it becomes evident that they contrast sharply with the social development efforts carried out through sports-based programs around the world. Soccer has the potential to create environments that promote life skills, build relationships, and strengthen community bonds due





to its accessibility (Newman et al., 2016). Additionally, through participation in the same activities, community members from diverse backgrounds can connect, overcome differences, and build stronger social networks (Sherry et al., 2015). Soccer programs also facilitate beneficial collaboration for local development (Klein & Darnell, 2024). With these various advantages, soccer-based programs demonstrate their capacity as effective tools for social development, offering health benefits, promoting social engagement, and empowering communities to reach their full potential. This makes soccer an ideal sports-based program for community development in Indonesia, given its popularity and the high level of enthusiasm among its fans.

This systematic literature review aims to report findings from a systematic review and meta-analysis of soccer-based programs for community development. Specifically, this investigation seeks to answer the questions: 1) What forms of soccer-based programs have been implemented as community development efforts? and 2) Are the soccer-based programs implemented effective for use in community development? By synthesizing findings from various studies, it can provide clearer insights into best practices and explore the broader implications of soccer-based programs as a development tool. This systematic literature review highlights important approaches that prioritize community engagement to ensure that sports programs for development achieve positive and sustainable outcomes for individuals and communities. The results of this investigation are expected to serve as a reference in social development efforts in Indonesia through sports-based programs, specifically soccer.

Method

Search Strategy and Study Selection

A Systematic Literature Review emphasizes the systematic search process supported by three main steps: identification, screening, and eligibility, which aid researchers in conducting comprehensive article searches (Page et al., 2021). A systematic review was conducted to search for studies discussing the application of soccer-based programs for social development. The study search process was conducted using the Scopus and Web of Science (WoS) databases, employing Boolean search strings to identify relevant studies from these databases.

The study search incorporated a combination of keywords (("soccer" OR "football") AND ("program" OR "intervention") AND ("society" OR "community") AND ("development" OR "empowering")) with a search scope of article titles, abstracts, and keywords conducted on November, 8 2024. The reference lists of the included articles were searched to identify additional studies to find relevant articles.

The systematic review included articles that: (a) focus primarily on soccer-based programs. These programs are designed for community empowerment through soccer activities, (b) provide measurable outcomes of community empowerment, and (c) utilize an experimental design with both experimental and control groups. The exclusion criteria applied during the search process were: (a) articles not written in English, (b) manuscripts that are not peer-reviewed, not in their final stage, or not sourced from journals.

The study search was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. This choice is based on the fact that PRISMA is a protocol that does not require ethical review and is reliable due to its foundation in high-quality, reputable journals (Kapadia et al., 2016). From the keyword searches across both databases, 295 articles were initially found. After removing duplicates, 2 articles were excluded. Following a full-text screening, another 289 articles were excluded for not meeting the inclusion criteria. In the end, 6 articles fulfilled the criteria and were included in the systematic review and meta-analysis. Figure 1 depicts the process of identification, screening, and eligibility assessment of the articles.

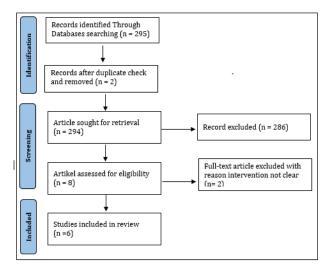
Data Synthesis and Effectiveness Calculation

The studies included in this investigation will be synthesized both qualitatively and quantitatively. The steps used adopt procedures from the systematic review study by Taheri & Welsh (2015). The investigation involves identifying the main features of these studies, which are coded as follows: authors and year, sample (number of participants, age, grade level), intervention, control group, evaluation design, and outcome measures. The subsequent analysis uses meta-analysis techniques to determine the effect



size. The effect size is calculated by taking the difference between the mean change in the control group and the mean change in the intervention group, and then dividing this difference by the pooled standard deviation from both groups. To facilitate the calculation of effect size, the investigators used Cochrane Review Manager software version 5.4.

Figure 1. Study selection PRISMA flow diagram



Results

This systematic review synthesizes findings from the investigation of six studies related to soccer-based programs in community development. The synthesis results are summarized from various studies that evaluate the effectiveness of soccer-based interventions across different populations and contexts. The studies investigated primarily used randomized controlled trial (RCT) designs or quasi-experimental designs to assess the impact of structured programs on improving physical, psychological, and social outcomes. The interventions included various demographic groups, including adolescents, adults, and specific community groups.

Martins et al. (2022) implemented the Teaching Personal and Social Responsibility (TPSR) model with male adolescents, noting significant improvements in personal and social responsibility through a combination of soccer-based physical training and classroom sessions. Additionally, Wyke et al. (2019) reported that the EuroFIT program significantly enhanced the well-being and vitality of men aged 30-65 years, while the Game Sense-based intervention by Casey et al. (2014) improved health-related quality of life among high school girls in rural and regional areas. These results underscore the importance of integrating pedagogical approaches into physical education. Both studies targeted broader health and lifestyle aspects, focusing on interventions that promote physical activity and health-related quality of life.

Furthermore, Rotheram-Borus et al. (2018) conducted an intervention that also explored multifaceted strategies by combining soccer training with vocational skills, aiming to create sustainable developmental outcomes. Although the 24-month assessment results are still pending, the randomized design highlights the potential of combining sports with vocational elements to address broader socio-economic challenges. Interestingly, not all interventions showed significant differences. For instance, the study by McFadyen et al. (2019) evaluated a web-based sustainability program in community soccer clubs, and found no significant differences in practice implementation between the intervention and control groups. This suggests that delivery mode and contextual factors might influence program effectiveness. Conversely, the institutional practice-targeted program by Milner et al. (2018) demonstrated the effectiveness of structured interventions in promoting health policies in junior sports clubs. These multifaceted programs increased the adoption of health policies, although specific outcomes related to alcohol and tobacco varied. Overall, these studies collectively illustrate the diverse approaches and impacts of





sports-based interventions. While many reports positive outcomes in skill development, health, and responsibility, some studies reveal the complexities of program implementation and sustainability. This underscores the need for context-specific designs and ongoing evaluation to optimize program impact and relevance.

The following analysis aims to determine the effectiveness of soccer-based programs for community development by comparing the mean values and standard deviations of the experimental and control groups in the included studies (see Table 2). Unfortunately, out of the six studies, only three provided data that met the desired criteria (see Table 2). Based on the review of program effectiveness, the goal of sports-based interventions is to enhance personal development, social responsibility, and overall well-being. These interventions, implemented across various populations and contexts, demonstrate the potential of structured physical activity programs in fostering social and psychological growth.

The study by Martins et al. (2022) showed that the experimental group experienced significant improvements in personal and social responsibility. However, in terms of autonomy, the experimental group showed a slight decrease (Mean = 4.58) compared to the control group (Mean = 4.94). This suggests that although the program emphasizes collective goals, it may not sufficiently support the development of individual autonomy, which is an area that could be improved in the future. The study conducted by Casey et al. (2014) reported that participants in the experimental group had higher scores compared to the control group, indicating that structured physical activity can significantly enhance overall life satisfaction. Furthermore, Wyke et al. (2019) showed improvements across all dimensions, with the experimental group outperforming the control group. Participants reported higher levels of well-being compared to the control group. There were also increases in self-esteem and subjective vitality, although the differences were relatively small. Interestingly, physical activity levels were lower in the experimental group compared to the control. This difference might reflect variations in how activity levels were measured or reported. Nevertheless, these findings emphasize the effectiveness of the program in promoting psychological and emotional well-being.

A meta-analysis was conducted by combining the results of studies that compared the effects of experimental interventions with control conditions. The results are presented as standardized mean differences (SMD) with 95% confidence intervals (CI), allowing for the comparison of effect sizes across studies (see Figure 2). Each study showed significant variation, ranging from small positive effects to non-significant or negative effects. For instance, Casey et al. (2014) reported a small but statistically significant positive effect (SMD = 0.42; 95% CI [0.25, 0.60]) in favor of the experimental group. Similarly, Wyke et al. (2019d) showed a comparable effect size (SMD = 0.41; 95% CI [0.29, 0.53]). In contrast, some studies, such as Martins et al. (2022c), showed non-significant effects (SMD = -0.01; 95% CI [-0.53, 0.55]), while Wyke et al. (2019a) reported negative effects (SMD = -2.36; 95% CI [-2.52, -2.21]) favoring the control group.

The combined analysis of all studies yielded an overall SMD of 0.21 (95% CI [0.15, 0.28]), indicating a small but statistically significant effect in favor of the experimental interventions. The overall effect test resulted in a Z value of 6.59 (p < 0.00001), demonstrating that the interventions produced measurable improvements compared to the control groups across studies. However, the analysis revealed substantial heterogeneity among the included studies ($Chi^2 = 2643.58$, p < 0.00001; $I^2 = 100\%$). This high level of heterogeneity indicates significant variation in effect sizes, likely stemming from differences in study design, sample characteristics, intervention protocols, or measurement methods.

Table 1. Summary study in systematic review

Name & year	sample	Intervention	Control Group	Evaluation	Outcome
(Rotheram-Borus et al., 2018)	1200 participants, with 400 men in each of the three conditions	ing and control condi-	no active intervention	ditions: soccer train-	the number of significant out- comes (NSO) out of 15 corre- lated outcomes, which will be assessed over 24 months comparing the three condi- tions.
(Wyke et al., 2019)	Men aged 30–65 with a self-reported BMI of ≥ 27 kg/m ²	EuroFIT programme	the intervention after 12 months	Randomized con- trolled trial with two primary outcomes	a positive impact on physical activity, well-being, self-es- teem, and subjective vitality among participants in the in- tervention group'





(Casey et al., 2014)	regional secondary schools in Victoria	Modest program designed to enhance physical activity levels and health-related quality of life, utilizing a student-centred pedagogical approach (Game Sense) and selfmanagement strategies	without any engage- ment strategy beyond those currently em- ployed by the inter- vention program part-	The RE-AIM frame- work was used to evaluate the program	significant improvements in health-related quality of life compared to the control group, with a total PedsQL score
(Martins et al., 2022)	53 male youngsters were aged between 14 and 18 years old	the Personal and Social Responsibility (TPSR) model and included 18	Physical Education classes following the national curriculum without the TPSR	pre-test and post-test	The study found significant differences in personal responsibility and social responsibility measures between the intervention and control groups,
(Milner et al., 2018)	90 clubs from eight leagues, with approxi- mately 45 clubs per group. The partici- pants are junior play- ers under 18 years old	a multicomponent program targeting health- promoting policies and practices in junior sporting clubs, focusing on alcohol and to-bacco practices, healthy food and beverage availability, and physical activity via participation in sport	The control group consists of leagues that will not receive any contact or inter- vention	The study employs a cluster randomised controlled trial (RCT) design, with random allocation of leagues to either the intervention or control group	number of health-promoting practices and policies imple- mented by the clubs
(McFadyen et al., 2019)	1006 club members	a web-based sustaina- bility program deliv- ered to community soccer clubs	clubs did not have access to the web-based program or any of the web-based resources		no significant difference be- tween intervention or control clubs

These results suggest that experimental interventions generally provide benefits, but their impact is relatively small. Significant heterogeneity requires further investigation to identify potential sources of variation. For example, subgroup analysis or meta-regression could be conducted to examine whether factors such as the type of intervention, implementation duration, or population characteristics (e.g., age, gender, or initial skill level) influence observed outcomes. Additionally, the strength of these findings should be evaluated considering the methodological quality of the included studies. Although the combined results indicate the effectiveness of the interventions, the substantial heterogeneity and variation in study-level outcomes underscore the importance of considering specific contexts when interpreting these findings. Future research should aim to refine intervention designs and standardize outcome measurement methods to reduce variability and improve the precision of effect size estimates.

Table 2. Summary of mean and standard deviation data in the included study

Auhtor & Year	Outcome maggine	Experiment			Control		
Auntor & Year	Outcome measure	Mean	SD	Total	Mean	SD	Total
	aPersonal Responsibility	4.56 4.58	1.06	27	4.08	1.33 0.97	26 26
(Martins et al., 2022)	bSelf-Direction		1.10	27	4.94		
	cSocial Responsibility	4.08	1.33	27	4.07	1.18	26
(Casey et al., 2014)	Health-related quality of life	81.3	12.0	262	76.1	12.5	259
	aPhysical activity	3.72	3.31	560	11.4	3.18	553
(Wyke et al., 2019)	bWell-being	7.6	1.2	560	7.2	1.4	553
	cSelf-esteem	23.3	4.6	560	22.2	4.8	553
	dSubjective vitality	21.2	4.6	560	19.2	5.1	553

Figure 2. The analysis to determine the effect size

ean SD 1.3 12 .56 1.06	262	Mean 76.1	\$D 12.5	Total	Weight	IV. Fixed, 95% CI	IV. Fixed, 95% CI
.56 1.06		76.1	40.5			14, 11ACU, 33/8 CI	IV, FIACU, 55/0 CI
	27		12.5	259	13.5%	0.42 [0.25, 0.60]	-
CO 4.4	21	4.08	1.33	26	1.4%	0.39 [-0.15, 0.94]	+
.58 1.1	27	4.94	0.97	26	1.4%	-0.34 [-0.88, 0.20]	
.08 1.33	27	4.07	1.18	26	1.4%	0.01 [-0.53, 0.55]	
.72 3.31	560	11.4	3.18	553	17.3%	-2.36 [-2.52, -2.21]	-
7.6 1.2	560	7.2	1.4	553	29.1%	0.31 [0.19, 0.42]	
3.3 4.6	560	0	4.8	553	7.2%	4.95 [4.72, 5.19]	· ·
1.2 4.6	560	19.2	5.1	553	28.8%	0.41 [0.29, 0.53]	
	2583			2549	100.0%	0.21 [0.15, 0.28]	•
3.58. df = 7	(P < 0.	00001):	P=10	00%		-	1 1 1 1
7 3 1	7.6 1.2 3.3 4.6 .2 4.6	7.6 1.2 560 8.3 4.6 560 .2 4.6 560 2583 58, df = 7 (P < 0.	7.6 1.2 560 7.2 7.3 4.6 560 0 7.2 4.6 560 19.2 2583 2583 58, df = 7 (P < 0.00001)	.6 1.2 560 7.2 1.4 .3 4.6 560 0 4.8 .2 4.6 560 19.2 5.1 2583 58, df = 7 (P < 0.00001); P = 10	7.6 1.2 560 7.2 1.4 553 3.3 4.6 560 0 4.8 553 3.2 4.6 560 19.2 5.1 553	.6 1.2 560 7.2 1.4 553 29.1% .3 4.6 560 0 4.8 553 7.2% .2 4.6 560 19.2 5.1 553 28.8% 2583 2549 100.0%	.6 1.2 560 7.2 1.4 553 29.1% 0.31 [0.19, 0.42] .3 46 560 0 48 553 7.2% 49.5[4.72, 5.19] .2 46 560 19.2 5.1 553 28.8% 0.41 [0.29, 0.53]





Discussion

This systematic review synthesizes findings from six studies evaluating the effectiveness of soccerbased programs in community development. These studies assess the impact of structured soccer interventions on various outcomes, including physical, psychological, and social aspects, across different populations and contexts. The collective findings underscore the ability of sports-based initiatives to serve as transformative tools for social and psychological empowerment, enabling individuals to improve their quality of life while contributing positively to their communities. These results are supported by the study conducted by (Hansell et al., 2020), which found that sports-based interventions can potentially enhance health knowledge and behaviors. Furthermore, the study by Andersen et al. (2018) revealed similar findings, showing that programs implemented through a sports approach are consistently linked to enhanced social and psychological health, regardless of the specific sport, age, physical condition, or mental health issues. Additionally, soccer-based programs have been proven to enhance overall physical fitness levels and positively influence cardiovascular health and related biomarkers (Clemente et al., 2022). Soccer programs have the potential to unite ethnically divided communities by fostering interaction and cooperation among various groups (Philip et al., 2023), enhancing social capital and fostering relationships across different cultural backgrounds (Höglund & Bruhn, 2024).

The results of this systematic review and meta-analysis indicate that soccer-based programs have the potential to support personal development, social responsibility, and well-being. However, the outcomes are not uniform, with some interventions showing small or insignificant effects. The success of interventions greatly depends on contextual approaches, implementation modes, and structured program design. Additionally, inconsistent results highlight the importance of continuous evaluation, contextual adaptation, and integration of additional intervention elements such as vocational skills or health policies. These findings also point to areas that need improvement. For instance, although Martins et al. (2022) noted increases in personal and social responsibility, a slight decrease in autonomy suggests the need for greater emphasis on balancing collective and individual goals. Similarly, the relatively small improvements in self-esteem and vitality observed by Wyke et al. (2019) indicate that program designs could benefit from a more specific focus on certain psychological outcomes. Although the achieved results have relatively small and inconsistent impacts, they should not be entirely dismissed but rather reviewed for potential enhancements. Studies have indicated that soccer peer-coaching serves as a powerful example of how training can enhance both athletic abilities and leadership within the community, nurturing a sense of belonging and purpose (Philip et al., 2023). Soccer also has a social impact especially among young people of school age as it can encourage motivation and contribute to their overall education (Almorza Gomar et al., 2020). However, it is important to note that while structured soccer programs offer numerous benefits, it is crucial to recognize the challenges faced by elite youth soccerers, who might encounter negative outcomes despite their involvement in competitive settings. To address these issues effectively, a balanced approach that integrates Social and Emotional Learning (SEL) with athletic training is essential (Blake & Solberg, 2023). Despite their potential, many soccer-based initiatives encounter challenges like participant disengagement, which can limit their overall effectiveness (Meir & Fletcher, 2017).

The meta-analysis conducted on three studies that met the required quantitative data criteria resulted in a combined effect size of Standardized Mean Difference (SMD), indicating a small but statistically significant effect in favor of the experimental group. However, high heterogeneity suggests significant variation between studies. This is likely due to differences in study design, target populations, types of interventions, or outcome measurement methods. This reinforces the idea that physical activity, when delivered in a structured and inclusive manner, can act as a powerful catalyst for personal and social development. As evidenced by the study conducted by Cunningham et al. (2020), programs like Soccer United have significantly impacted participants' life paths. Interviews with former participants showed that the connections made through these programs boosted their social capital, influenced their educational and career decisions, and promoted a commitment to community involvement. Programs based on the Teaching Personal and Social Responsibility (TPSR) model have successfully promoted social and emotional learning (SEL), highlighting themes of support, teamwork, and enhanced understanding, thereby demonstrating that soccer can be a valuable platform for cultivating essential social skills (Shen et al., 2024)





Conclusions

This systematic review and meta-analysis provide comprehensive insights into the effectiveness of soccer-based programs in fostering community development. The findings highlight their potential to promote personal growth, social responsibility, and well-being across diverse populations. Programs leveraging structured physical activity demonstrated measurable improvements in outcomes such as quality of life, psychological empowerment, and social skills. However, the results also reveal significant variability in program effectiveness, attributed to differences in study design, target populations, and implementation strategies. While many interventions reported positive impacts, the overall effect size was small but statistically significant. High heterogeneity underscores the need for context-specific program adaptations and emphasizes the importance of tailoring interventions to the cultural and social environments of participants. Moreover, challenges such as balancing individual autonomy with collective goals, addressing inclusivity, and maintaining participant engagement indicate areas requiring further refinement.

Future soccer-based programs should integrate innovative elements like vocational training and Social and Emotional Learning (SEL) frameworks to enhance their multidimensional impact. Continuous evaluation, sustainability planning, and the inclusion of marginalized groups will be crucial in ensuring longterm success and equitable access. Despite challenges, soccer's universal appeal and accessibility position it as a powerful medium for personal and social transformation, offering promising pathways for addressing complex community challenges. Future research should emphasize the development of context-specific program designs that align with local cultural, social, and economic environments. Tailoring interventions to community needs and values can enhance relevance and engagement, ensuring broader reach and greater impact. Additionally, designing programs that balance individual autonomy with collective responsibilities is essential. This includes fostering personal outcomes like self-esteem and independence while also promoting teamwork and social responsibility. Expanding the scope of outcome measures is another critical area. Beyond assessing physical and social benefits, studies should explore specific psychological outcomes such as resilience and emotional regulation, as well as longterm impacts on participants' career development and sustained community involvement. Evaluating broader community-level effects, such as improved social cohesion and reduced inequality, will also provide valuable insights.

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