






SPORTS PERFORMANCE IN FUNCTION OF SELF-EFFICACY: A SYSTEMATIC REVIEW

RENDIMIENTO DEPORTIVO EN FUNCIÓN DE LA AUTOEFICACIA: REVISIÓN SISTEMÁTICA

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Abstract

The self-efficacy on sport performance has been a widely studied topic, but without reaching a consensus yet. Professionals in sports psychology highlight the importance of understanding the psychological state of the athlete, including their level of confidence and attitude to challenges to perform adequately in their discipline. For this reason, the objective of the study is to analyze the existing studies on the influence of self-efficacy on sport performance. The review was performed under the PRISMA methodology, 304 articles were identified and analyzed under the criteria of eligibility and methodological quality by the AXIS tool; finally, 10 articles were included. The results mostly indicate that self-efficacy is present in different sports, it is an element of impact, which will predict sporting behavior and consequently its success. Performance measures differ in each discipline, according to the particularity of each sport. Self-efficacy can be part of an explicative model of the athlete's personality. The information presented allows for greater clarity in the theories of response to the sports phenomenon and to contribute to the design of intervention tools that strengthen the appropriate psychological processes. Results found shouldn't be generalized, due to the limitations in the performance measurement, other variables to be considered and the virtues of each discipline.

Keywords: Sport psychology, physical activity, achievement, self-efficacy.

Resumen

La autoeficacia en el rendimiento deportivo ha sido un tópico estudiado ampliamente, pero sin llegar todavía a un consenso. Los profesionales en psicología deportiva resaltan la importancia de conocer el estado psicológico del atleta, incluyendo su nivel de confianza y actitud frente a los retos para desempeñarse adecuadamente en su disciplina. Por lo anterior, el objetivo de la investigación fue analizar los estudios existentes sobre la influencia de la autoeficacia en el rendimiento deportivo. La revisión se realizó bajo la metodología PRISMA, se identificaron 304 artículos que fueron analizados bajo los criterios de elegibilidad y calidad metodológica por la herramienta AXIS, finalmente se incluyeron 10 artículos. Los resultados indican mayormente que la autoeficacia está presente en distintos deportes, es un elemento de impacto, que puede influir en el comportamiento deportivo y por ende en su éxito. Las mediciones del rendimiento difieren en cada disciplina, debido a la particularidad de cada deporte. La autoeficacia puede ser parte de un modelo explicativo de la personalidad deportiva. La información presentada permite tener mayor claridad en las teorías de respuesta al fenómeno deportivo y aportar al diseño de herramientas de intervención que fortalezcan los procesos psicológicos adecuados. No se deberán generalizar los resultados, debido a limitaciones en la medición del rendimiento, otras variables involucradas y las virtudes de cada disciplina.

Palabras clave: Psicología deportiva, ciencia deportiva, actividad física, logro, autoeficacia.



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Introduction

Sports performance, as defined by Ericsson and Charness (1994), refers to the highest possible performance given the current knowledge and training methods existing in the specific domain of practice. On the other hand, Conejero et al. (2017) define performance as the final result of a motor action, considering the characteristics of each discipline. If each sport has different traits, its evaluation will have different indicators and possibly a concept adapted to its operationalization.

Bloom (1985) investigated different sports activities and disciplines to find patterns and similar characteristics in individuals who had developed their activity to levels of excellence. Through various case studies that included swimmers, tennis players, pianists, sculptors, and scientific specialists in the fields of mathematics and neurology, he found that most had a playful motivation at an early age, presence of motivation generators towards the activity of interest, and a strong parental bond that conveyed the importance of excellence.

In the sports aspect, the development of skills focuses on successfully anticipating future events and skillfully coordinating overlapping movements. It has been mentioned that sports performance is the result of extreme adaptation, achieved through lifetime effort, including adaptive changes at the physiological level and specific motor skills. For psychology, the study of performance was out of reach for many years, as research focused on studying the innate (physiological) conditions of the subject (Ericsson & Charness, 1994). With the arrival of sports psychology, a professional field oriented towards creating and evaluating programs and techniques to develop psychological skills (Cantón, 2010) that will impact sports performance was established.

Sports performance is a central element in sports sciences and “congruently for sports psychology.” Optimal performance allows achieving success and desired results. Therefore, it is important to consider: What factors influence sports performance? What sports settings have considered self-efficacy as an object of study? What evidence has sports psychology found in relation to athlete performance and with what type of scope? (Ursino et al., 2018).

We understand self-efficacy as the assessment an individual gives to their capacity to achieve a specific goal (Bandura, 1977). It is likely that an individual with a high degree of self-efficacy will exert greater effort to complete a task despite environmental threats.

Self-efficacy belongs to the construct of success, which etymologically has its origin in the English noun *success* and its verb form *succeed*, which does not come directly from Latin but was incorporated through the French spoken by the conquerors. It is composed of “su/sub” (under) and *cedere* (to go towards), which refers to going under or going behind (Klein, 1966). Success is explained through Nicholls’ (1984) achievement goal theory, which states that the main objective of a subject in competitive environments is to demonstrate ability based on two conceptions: task orientation, which refers to mastery of the activity; and ego orientation, which refers to the outcome, where success comes from victory over each rival by demonstrating greater ability. It is important to consider that the dimension of the concept allows us to analyze it from different representations, as it is a concept relative to each individual’s interpretation, often related to problem-solving, passing tests, or progressing towards a specific point. Therefore, it can be analyzed as a phenomenon with various research dimensions.

The following of a psychological stimulus can be determinant for reaching maximum performance levels (Bloom, 1985). On the other hand, each sports discipline is considered a subculture with its particular systems and values (Malico et al., 2008), making each sport a relevant object of study concerning the same psychological variable, such as self-efficacy. The review by Ursino et al. (2020) provides clarity on the advances in the study of sports performance as a polysemic term sensitive to each discipline. However, it is of utmost importance to understand the state of knowledge related to psychological aspects to generate appropriate strategies for athletes in training and for new emerging sports.

Objective

The objective of this paper was to conduct a systematic review of existing studies on the influence of the *self-efficacy* variable on *sports performance*, in the main international databases.

Research Question

How does the perception of self-efficacy influence the athletic performance of athletes?

Materials and Methods

Search Strategy

In this systematic review, the PRISMA statement (Page et al., 2020) was used, which consists of 27 items divided into seven sections, ensuring that the information is transparent, reproducible, and systematic.

Studies were identified through electronic databases: Scopus, VHL (Virtual Health Library), EBSCOhost, MEDLINE, and Google Scholar.

Two semantic fields were used, one pertaining to the area of sports performance and the other describing the perception of self-efficacy. Search terms, both in English and Spanish, were: *Sport* performance/rendimiento deportivo, athletic performance/rendimiento atlético, psychomotor performance/desempeño psicomotor, sport* achievement/logro deportivo, and sport* result/resultado deportivo*, combined with *success/éxito, self-efficacy/autoeficacia, success attribution*/atribuciones de éxito, and achievement/logro*. Searches were conducted using the Boolean operators "AND" and "OR" (Table 1).

Table 1
Search strategies

Database	Search Strategy
Google Scholar	allintitle: "Sport* performance"OR"athletic performance"OR"Psychomotor Performance"OR"Sport* achievement"OR"sport* result" "success"OR"self-efficacy"OR"success attribution*"OR"achievement" allintitle: "Rendimiento deportivo"OR"Rendimiento atlético"OR"Desempeño psicomotor"OR"Logro deportivo"OR"Resultado deportivo" "éxito»OR»autoeficacia»OR»atribuciones de éxito»OR»logro"
VHL – Virtual Health Library	(Sport* performance) OR (athletic performance) OR (Psychomotor Performance) OR (Sport* achievement) OR (sport* result) AND (success) OR (self-efficacy) OR (success attribution) OR (achievement) (Rendimiento deportivo) OR (Rendimiento atlético) OR (Desempeño psicomotor) OR (Logro deportivo) OR (Resultado deportivo) AND (Éxito) OR (Autoeficacia) OR (Atribuciones de éxito) OR (Logro)
Scopus	TITLE ("Sport* performance" OR "athletic performance" OR "Psychomotor Performance" OR "Sport* achievement" OR "sport* result" AND "success" OR "self-efficacy" OR "success attribution*" OR "achievement") AND (LIMIT-TO (PUBYEAR, 2023) OR LIMIT-TO (PUBYEAR , 2022) OR LIMIT-TO (PUBYEAR , 2021) OR LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2018) OR LIMIT-TO (PUBYEAR , 2017)) TITLE ("rendimiento deportivo" OR "rendimiento atlético" OR "desempeño psicomotor" OR "logro deportio" OR "resultado deportivo" AND "éxito" OR "autoeficacia" OR "atribuciones de éxito" OR "logro") AND (LIMIT-TO (PUBYEAR, 2023) OR LIMIT-TO (PUBYEAR , 2022) OR LIMIT-TO (PUBYEAR , 2021) OR LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2018) OR LIMIT-TO (PUBYEAR , 2017))
EBSCO-HOST	(TI "Sport* performance" OR TI "athletic performance" OR TI "Psychomotor Performance" OR TI "Sport* achievement" OR TI "sport* result") AND (TI "success" OR TI "self-efficacy" OR TI "success attribution*" OR TI "achievement") (TI "Rendimiento deportivo" OR TI "Rendimiento atlético" OR TI "Resultado deportivo" OR TI "Desempeño psicomotor" OR TI "Logro deportivo") AND (TI "éxito" OR TI "autoeficacia" OR TI "atribuciones de éxito" OR TI "logro")
MEDLINE	(sport* performance[Title] OR athletic performance[Title] OR psychomotor performance[Title] OR sport* achievement[Title] OR sport* result[Title]) AND (success[Title] OR self-efficacy[Title] OR success attribution*[Title] OR achievement[Title]) Filters: from 2017 – 2023 (rendimiento deportivo[Title] OR rendimiento atlético[Title] OR desempeño psicomotor[Title] OR logro deportivo[Title] OR resultado deportivo[Title]) AND (éxito[Title] OR autoeficacia[Title] OR atribuciones de éxito[Title] OR logro[Title]) Filters: from 2017 – 2023

Inclusion and Exclusion Criteria

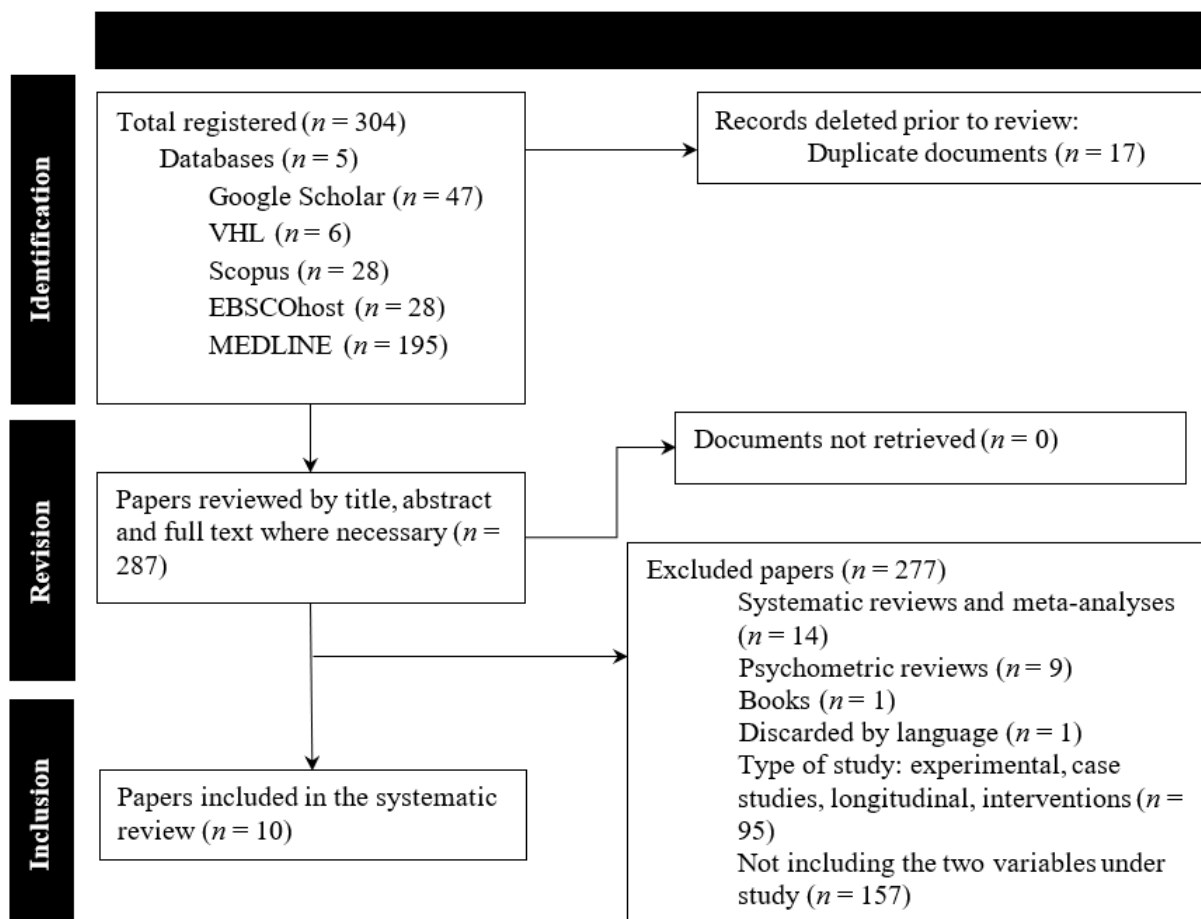
Studies that met the following inclusion criteria were selected: a) type of document source (scientific articles); b) empirical cross-sectional designs with athlete, sportsmen, or player participants; c) documents in English or Spanish; d) studies that included a variable related to self-efficacy or concepts related to the construct (success, attributions, and achievement) and a variable related to the player's sports performance; and e) studies from the year 2017 to 2023 to include the most up-to-date literature, following the review period by Ursino et al. (2020), which considered previous years.

Based on the exclusion criteria, theses, scientific meetings, outreach journals, systematic reviews, meta-analyses, and books were discarded. It was considered that the information from these sources would be included in the highest-prestige sources.

Study Selection Process

The systematic search process (Figure 1) identified a total of 304 articles. Seventeen studies were eliminated as duplicates. Subsequently, title and abstract were examined, and “when necessary” the full text was reviewed. From the analysis, studies were discarded based on inclusion criteria of language (English and Spanish) $n = 1$, article type ($n = 1$) as it was a book, discarded for being systematic reviews and/or meta-analyses ($n = 14$), psychometric reviews ($n = 9$), for not including both study variables ($n = 157$), and for the study type ($n = 95$), which included: experimental research, case studies, longitudinal studies, interventions, and others whose methodology was not cross-sectional. Finally, a result of $n = 10$ was included in this review.

Figure 1
PRISMA diagram



Methodological Quality Assessment

To evaluate the methodological quality of the selected studies, the assessment tool for cross-sectional studies AXIS (Downes et al., 2016) was used, which aims to assist in systematic interpretation by informing about the quality of the research. It contains 20 items divided into five sections that evaluate the introduction, method, results, discussion, and others. Therefore, a total percentage is obtained that describes the quality, validity, accuracy, relevance, and design of the study.

The evaluation criteria are scored with one or zero for each of the 20 items to describe the methodological content that should be considered in each study. Finally, the obtained score is summed and a rule of three is used to determine the percentage of each study. Of the 10 reviewed articles, an index of 75% or more was considered acceptable for inclusion in the study (Table 2), none of which were eliminated as all met the desired minimum scores.

Table 2
Assessment of methodological quality

No.	Introduction	Method																				Results	Discussion	Other	%	
		Items																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20					
	Studies	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20					
1	Baretta et al. (2017)	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	95%
2	Hepler et al. (2017)	1	1	-	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	85%
3	Sklett et al. (2018)	1	1	1	1	1	1	-	1	-	1	1	1	1	1	-	1	1	-	1	1	1	1	1	1	80%
4	van Raalte & Posteher (2019)	1	1	-	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	85%
5	Ahmed et al. (2020)	1	1	-	1	1	1	1	1	1	-	1	1	1	-	1	1	1	-	1	1	1	1	1	1	80%
6	Koper et al. (2020)	1	-	1	1	1	-	-	1	1	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	80%
7	Li et al. (2020)	1	1	-	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	85%
8	Çakiroğlu (2021)	1	1	1	1	1	1	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	90%
9	Djurovic (2021)	1	1	-	1	1	-	1	1	-	1	-	1	1	1	1	1	1	1	-	1	1	1	1	1	75%
10	Peng & Zhang (2021)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100%

Note: 1 = Were the study objectives/goals clear?, 2 = Was the study design appropriate to the stated objective(s)?, 3 = Was the sample size justified?, 4 = Was the target population clearly defined?, 5 = Was the sampling frame taken from an appropriate population base to closely represent the target population?, 6 = Was the selection process likely to select participants who were representative of the target population being investigated?, 7 = Were steps taken to address and categorize nonresponders?, 8 = Were the risk factor and outcome variables measured in accordance with the study objective?, 9 = Were the risk factor and outcome variables correctly measured using instruments that had been previously tested, piloted, or published? 10 = Is it clear what was used to determine statistical significance and/or precision estimates (e.g., p values, confidence intervals) ?, 11 = Was the method sufficiently described to allow for replication?, 12 = Were the baseline data adequately described?, 13 = Does the response rate raise concerns about nonresponse bias?, 14 = Was information about nonresponding participants described?, 15 = Were the results internally consistent?, 16 = Were the results presented for the analyses described in the method?, 17 = Were the authors' discussions and conclusions justified by the results?, 18 = Were the limitations of the study discussed?, 19 = Were there any funding sources or conflicts of interest that may affect the authors' interpretation of the results?, 20 = Was ethical approval or consent obtained from the participants?, 20 = Was ethical approval or consent obtained from the participants?

Data Extraction

For data extraction, the following information was recorded: author, year, country, number of participants (including sex and age range/average), type of sport (including years of experience), instruments used, variable related to self-efficacy, variable related to sports performance, main results, and limitations (Table 3).

Results

The ten studies included in this review were mostly conducted in Europe (n = 4) (Baretta et al., 2017; Durovic, 2021; Koper et al., 2020; Sklett et al., 2018), followed by Asia (n = 4) (Ahmed et al., 2020; Çakiroğlu, 2021; Li et al., 2020; Peng & Zhang, 2021), and finally, two in America, specifically in the United States (Hepler et al., 2017; van Raalte & Posteher, 2019).

Regarding the population, most of the studies included both men and women in their samples (n = 6) (Baretta et al., 2017; Durovic, 2021; Hepler et al., 2017; Koper et al., 2020; Li et al., 2020; Peng & Zhang, 2021), followed by studies that only considered men (n = 2) (Ahmed et al., 2020; Sklett et al., 2018) and studies that did not specify the gender of their population

($n = 2$) (Çakiroğlu, 2021; van Raalte & Posteher, 2019). The average age was 26.65 years ($n = 6$), with only one study (Ahmed et al., 2020) indicating that their population was under 20 years old, and three studies not mentioning the age range or average age (Çakiroğlu, 2021; Sklett et al., 2018; van Raalte & Posteher, 2019).

Regarding the sample size, it ranged from 40 to 459 participants, with an average of 154.1. In terms of sports, the studies included various disciplines such as boccia, competitive apnea, handball, soccer, water polo, skiing, basketball, darts, taekwondo, and athletics; the study by Çakiroğlu (2021) did not specify the practiced disciplines. Likewise, the experience in sports ranged from 4.26 to 9.72 years of experience, considering the studies that reported it ($n = 4$) (Baretta et al., 2017; Li et al., 2020; Peng & Zhang, 2021; van Raalte & Posteher, 2019).

Table 3
Articles included in the systematic review

N° Reference		Method				Results		
Author, year and country	Participants	Sport and/or years of experience	Instruments	Variable of self-efficacy evaluated	Variable of sport performance evaluated	Main results	Limitations	
1	Baretta et al. (2017) Italy	Athletes ($n = 129$), 86 males and 43 females, mean age 39.76.	Dynamic freediving (DYN) 4.26 average years of experience and constant weight freediving (CWT) 5.58 average years of experience.	BSSS Vertical self-efficacy scale Horizontal self-efficacy scale	Perceived self-efficacy	DYN and CWT Apnea Performance.	Self-efficacy can partially predict performance in horizontal and vertical apnea.	Not generalizable due to cross-sectional design and non-equivalent samples.
2	Hepler et al. (2017) United States	Student Players ($n = 84$), 42 females and 42 males, mean age 20.23 years old.	Darts (participants practiced: baseball, softball, soccer, basketball or field hockey).	Self-efficacy scale - throwing Self-efficacy scale - shooting	Self-efficacy	Indoor and outdoor shooting scores, in competitive and target conditions.	Self-efficacy has a significant relationship with shooting performance, but no significant differences if performed outdoors or indoors.	Participants' darts experience was varied; therefore, task objectives may be biased by being more difficult for some participants.
3	Sklett et al. (2018) Germany	Athletes ($n = 40$), males.	World Cup Ski Jumping.	FSS PANAS PSWQ Self-efficacy scale - jump	Self-efficacy	Ski jumping performance.	Self-efficacy is predictive of ski jumping performance.	Consider environmental effects such as weather and athlete environment as a factor.
4	van Raalte y Posteher (2019) United States	Athletes ($n = 459$).	18 different sports, 9.72 average years of experience.	SLSI SSS NGSE PPAA	Perceived self-efficacy	Self-reported sport performance.	There is a positive effect between self-efficacy and performance. In addition, Self-efficacy can partially mediate stress and performance.	Measurement of performance was self-reported.
5	Ahmed et al. (2020) Iraq	Athletes ($n = 45$), males under 20 years of age.	Track and field ($n = 10$ discus throw, $n = 11$ shot put, $n = 10$ hammer throw, $n = 14$ javelin throw).	MSAM TSCI.	Sports self-confidence	Achievement in throwing events.	Self-confidence can predict achievement outcomes in athletes.	Pay attention to other psychological components such as motivation and stress. Need to construct achievement motivation and self-confidence instruments for other sport disciplines.

6	Koper et al. (2020) Poland	Athletes (n = 109), 24 females and 85 males between 16 and 54 years old.	Boccia	AIMS SES SSA AMS STAI STPQ	Self-efficacy for physical activities	Place in individual competitions.	Athletes with higher levels of self-efficacy and expectations and lower levels of athletic identity and anxiety have better athletic outcomes.	Analysis based on self-reported data and cross-sectional design. Sample size and underrepresentation of women (22%).
7	Li et al. (2020) China	Taekwondo athletes (n = 332), 187 males and 145 females, mean age 18.32.	Taekwondo with 5.81 years of experience.	BIF - 44 AQ CES-D UCLA EQ ASC IC SSEQ	Self-efficacy	Performance in rankings and positions in competitions.	Self-efficacy is part of an athlete profile, which includes: Extraversion, healthy habits, impulse control and ethics; inconsistent results were obtained to explain a significant association with players' success.	Insufficient measures were included to account for an athlete's personalities and emotions. Measurements of variables were self-reported, so may involve bias.
8	Çakiroğlu (2021) Turkey	Athletes (n = 186).	NS	ASEQ APerfectQ APerfoQ	Perceived athletic self-efficacy	Self-reported athletic performance.	Athletic self-efficacy has a significant positive effect on athletic performance.	NS
9	Durovic (2021) Serbia	Athletes (n = 76), 53 males and 23 females, mean age 18.38.	Team sports (handball 71%, soccer 18%, water polo 11%).	CSAI-2R, GSE, Self-assessment of performance.	General self-efficacy	Self-reported athletic performance.	Self-efficacy can mediate sport anxiety and performance, in addition to being a predictor of performance in team sports.	NS
10	Peng y Zhang (2021) China	Players (n = 81), 40 females and 41 males, mean age 20.26 years old.	College basketball with 6.54 average years of sports experience	SCAT TEOSQ GSES CSAI-2R	General self-efficacy	Performance in free throw competition.	Self-efficacy has a positive effect on motor performance in competitive and non-competitive conditions alike.	Results not generalizable to broader athletic population. Sample of Chinese athletes only.

Note: n = sample size, NE = not specified, AIMS = Athletic Identity Measurement Scale, SES = Self-Esteem Scale, SSA = Self-Efficacy for Sport Activities Scale, AMS = Achievement Motives Scale, STAI = State Trait Anxiety Inventory, STPQ = Self- and Task-Perception Questionnaire, ASEQ = Athletic Self-Efficacy Questionnaire, APerfectQ = Athletic Perfectionism Questionnaire, APerfoQ = Athletic Performance Questionnaire, SLSI = Student-Life Stress Inventory, SSS = Social Support Scale, PPAA = Perceptions of Performance Academic and Athletic, NGSE = new general self-efficacy scale, BSSS = Brief Sensation Seeking Scale, CSAI-2R = The Revised Competitive State Anxiety Inventory, GSE = General Self-Efficacy, FSS = Flow State Scale, PANAS = Positive- and Negative Affect Schedule, PSWQ = Penn State Worry Questionnaire, SCAT = Sport

Competitive Anxiety Test, TEOSQ = Task and Ego Orientation in Sports Questionnaire, GSES = General Self-Efficacy Scale, BIF-44 = Big Five Inventory - 44, AQ = Aggression Questionnaire, CES-D = Center for Epidemiologic Studies Depression Scale, UCLA = Loneliness Scale, EQ = Envy Questionnaire, ASC = Athlete Self-Control, IC = Impulse Control, SSEQ = Sport Self-efficacy Questionnaire, MSAM = Measuring Sport Achievement Motivation, TSCI = Trait Sport Confidence Inventory.

The instruments used to assess perceived self-efficacy in the athlete were GSES or GSE (General Self-Efficacy Scale) in two studies (Durovic, 2021; Peng & Zhang, 2021), which is a general self-efficacy scale designed by Baessler and Schwarzer (1996) and aims to assess the stable feeling of competence to effectively handle stressful situations. Followed by the Ski Jumping, Throwing, and Dart Throwing Self-Efficacy scale ($n = 2$) (Hepler et al., 2017; Sklett et al., 2018), which were created from Bandura's (2001) Self-Efficacy Scale Construction Guide, which describes the construct structure and provides steps to design, write, and validate a scale adapted to the required environment. The study by van Raalte and Postheer (2019) relied on the NGSE (New General Self-Efficacy Scale), which is a new scale developed by Chen et al. (2001), which aims to measure individuals' perception of their ability to perform successfully in a variety of different situations. For the work of Koper et al. (2020) they relied on the SSA (Self-Efficacy for Sport Activities Scale), which is a scale of self-efficacy in sport environments and represents the extent to which a person is convinced of his or her ability to follow an exercise program, even under unfavorable conditions. Subsequently, Ahmed et al. (2020) used the TSCI (Trait Sports Confidence Inventory), which was created by Vealey (1986) to measure confidence traits when performing a sport activity. In the case of the study by Li et al. (2020), the SSEQ (Sport Self-efficacy Questionnaire), a questionnaire developed to measure athlete self-efficacy under training and competition conditions by the athlete, was applied (Wei et al., 2008). In the study by Çakiroğlu et al. (2021), the variable was assessed using the ASEQ (Athletic Self-Efficacy Questionnaire), which is validated to provide information on the perception of self-efficacy in athletes (Sahraian et al., 2016). Finally, in the study by Baretta et al. (2017), two scales created through expert opinion in freediving were used to express perceived self-efficacy in both modalities of the discipline (vertical and horizontal). Regarding validity and reliability, two studies (Djurovic, 2021; Sklett et al., 2018) showed no evidence in this regard, the rest, ($n = 8$) used instruments that had been piloted, tested or used previously.

Regarding the tools used to evaluate sport performance, mostly ($n = 5$) discipline-specific measures were used. For example, in the study by Baretta et al. (2017) it was determined from distance and depth in the two types of apnea evaluated (horizontal and vertical); for the work by Sklett et al. (2018) it was calculated from ski jump scores; Peng and Zhang (2021) evaluated free throw scores in closed and open space, as their population was basketball players; Hepler et al. (2017) used the sum of the scores obtained from the dartboard when throwing darts; and Ahmed et al. (2020) evaluated performance from the throws of track and field competitors as they were all throwers. On the other hand, in the studies of Koper et al. (2020) and Li et al. (2020) used as a measure of performance the place obtained in the competition event, being Boccia and Taekwondo the evaluated disciplines, respectively. In the case of van Raalte and Postheer (2019), the PPAA (Perceptions of Performance Academic and Athletic) scale was used, which measures the perception of athletic and academic performance (Rees & Hardy, 2004). Çakiroğlu (2021) used a scale (Athletic Performance Questionnaire) validated and created by Charbonneau et al. (2001), which from five items assesses perceived athletic performance. Finally, Djurovic (2021) used self-assessments of athletic performance designed for the study.

Regarding the results, most studies ($n = 7$) indicate that self-efficacy can have a significant relationship and influence on performance in a sport discipline and can even be considered a predictor in freediving and ski jumping (Baretta et al., 2017; Sklett et al., 2018). Only the study by Li et al. (2020) showed inconsistent results to relate it to athletes' self-efficacy. The above confirms that the self-efficacy perceived by an athlete when practicing a discipline is a relevant factor in their sport performance. It can also influence an athlete's motor abilities under competitive and non-competitive conditions, which will largely determine his or her outcome (Peng & Zhang 2021). Most studies indicate a relationship between the self-efficacy variable and the athlete's competitive status. Therefore, the level of self-confidence can determine the way of facing challenges; before, during and after the competition.

The main limitations mentioned in the studies are: the research design does not allow generalization to the whole sport context ($n = 4$), being cross-sectional and with purposive or non-equivalent samples due to the availability of the players. There is a risk of bias, due to the fact that performance data were obtained from subjective measures ($n = 3$) (Koper et al., 2020; Li et al., 2020; van Raalte & Postheer, 2019) which, is confirmed in the review by Ursino et al. (2020), as performance assessment continues to show shortcomings, by employing unreliable analysis methodologies, resorting to self-reported and contextual measures, for example the outcome of a single competition, it would be valuable to include more consistent measures such as aerobic capacity and athlete mobility. Other articles indicate that it is important to consider more variables to explain the phenomenon of sport performance, such as environmental influences (Sklett et al., 2018), internal motivation (Ahmed et al., 2020) and personality (Li et al., 2020). In addition to analyzing the sport contexts (coach, family and professionals) that could, or could not, have an impact on the athlete (García-Naveira, 2018).

Also, it is recommended to control for years of sport experience and to solve the need for more standardized instruments to assess self-efficacy.

Conclusions

The present work aimed to perform a systematic review of existing studies on self-efficacy and sport performance, considering the period from 2017 to 2023. For several decades, studies have aimed to find the factors involved in athletes' sports performance. Sport psychology proposes to examine factors unrelated to physical ability, which have a great impact on the state before, during and after sports practice. Therefore, the self-efficacy perceived by the athlete will have a relevance in the outcome of the sport practice. Programs focused on improving the athlete's confidence can greatly complement the achievement of expected goals in high performance.

Studies allow us to observe that the athlete's perceptions about what he/she can achieve, regardless of whether or not he/she has the physical conditions, will make him/her face challenges, difficulties and competitions in a different way. In this way, the beliefs about one's own capabilities have a great power of action.

The synthesis of the information reviewed allows us to conclude that the variable of self-efficacy is present in different sports, as it is an element of impact, which will predict sporting behavior and therefore "its result". On the other hand, there are few inconsistencies in the relationship between the variables, which are due to limitations or particular considerations of each study. It is evident that sport psychology has an area of opportunity to strengthen the operationalization and evaluation of those psychological constructs that can influence sport performance, because it is one of the main conditions that limit the generalization of results.

Finally, despite the evidence found, the relevance of replicating the studies in different populations and sports should be considered. Exploring in depth each variable and its combination, as part of explanatory models of behavior. This will allow us to have greater clarity in the theories of response to the sports phenomenon, and thus be able to design intervention tools that strengthen the appropriate psychological processes that help the optimal sports development; achieving an impact on the permanence, motivation and satisfaction in the execution of physical activity, which will contribute positively to overall health.

Ethics Committee Statement

Not applicable because the study is a systematic review.

Conflict of Interest Statement

The authors declare that they have no conflicts of interest; the funding institutions had no influence on the design of the study, the analysis of the data or the interpretation of the results.

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Authors' Contribution

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Data Availability Statement

Data are not available because the paper is a systematic review.

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