

Review

The Role Of Karate Training In Improving Psychosocial Skills In Karateka: A Scoping Review Study

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Abstract: The purpose of this study is to provide a scoping review on how karate training helps karate practitioners develop their psychosocial abilities. (1) What psychosocial skills are most commonly identified? is the first research question, (2) Which aspect of karate instruction makes the biggest contribution?, (3) What are the primary areas that require additional research in the existing literature on the connection between karate training and psychosocial skills?. The research method used was a scoping review. The research stages consisted of (1) determining the title, (2) formulating research questions, and (3) searching for article data through Google Scholar, Wiley, Scopus, and ScienceDirect. The keywords used are Boolean “psychosocial” and “karate”. The complete search yielded 1358 data, which were then filtered to find relevant studies, yielding 11 data. These data were then filtered based on the full abstract text, focused on open access and in English, yielding the final data of 8 articles. (1) Resilience, self-efficacy, self-control, perseverance, behavioral and emotional regulation, and social competence are the psychosocial skills most frequently linked to karate training. (2) A system of progression and gradual mastery, a disciplined and repetitive training structure, internalization of the dojo's ethical and philosophical values, social dynamics and training interactions, and pedagogical context are the elements of karate training that are most likely to support psychosocial development. (3) There is still much space for improvement in the relationship between karate training and psychosocial abilities, especially in longitudinal designs, more controlled experimental research, and investigation of the psychological and pedagogical mechanisms of karate. Conclusions: Karate training has the potential to be a strategic approach to character development and psychosocial well-being in schools and sports.

Keywords: scoping review, karate martial arts, psychosocial enhancement, young karateka

1. Introduction

Karate is a martial art that promotes mental, emotional, and social growth throughout the training process [1]. Karate, a sport that teaches punching, kicking, and stance techniques as well as self-defense principles, embodies philosophical qualities like discipline, self-control, and respect for others [2], [3]. Karate has rapidly expanded as a leisure and competitive activity worldwide, particularly among children, adolescents, and adults [4], [5], [6]. This has prompted a fresh focus on the non-physical benefits of karate training, particularly those connected to character development and psychosocial skills.

Psychosocial skills are the abilities that allow individuals to control their emotions, communicate, make decisions, and adjust to different situations [7], [8]. These skills are required for athletes to achieve peak performance, increase motivation, and maintain a healthy balance between training and personal life [9], [10]. Psychosocial skills are far

more important in martial arts since athletes must be able to control their emotions, deal with the demands of competition, and remain competitive [11], [12]. As a result, investigating how karate might improve psychosocial aspects is critical for coaches, trainers, and sports researchers.

Karate has the potential to considerably enhance psychosocial development [13]. Individuals learn self-control, focus, empathy, and emotional management by applying ancient dojo concepts like *rei* (respect), *dojo kun* (code of ethics), and discipline throughout training [13]. Competitive kumite also teaches you how to control stress, gain confidence, and deal with difficult situations. Furthermore, interactions with other karateka and coaches improve communication, cooperation, and social support [14]. Several studies have found that karate training helps boost self-esteem, discipline, and emotional control [13], [15]. However, existing research findings are conflicting and do not provide a clear picture of the veracity of these findings.

Several studies have looked into the relationship between karate training and psychosocial development. However, some research gaps are notable. First, most previous research has concentrated on one or two areas of psychosocial development, failing to cover the entire spectrum [11], [16]. Second, it is difficult to evaluate the unique impacts of karate because most research lump all martial arts together [15]. Third, to date, no systematic evaluation has been conducted to summarize and analyze empirical information on how karate training enhances psychosocial abilities in karate athletes of diverse ages and ability levels [17]. The absence of a complete scientific synthesis makes understanding past study findings difficult. As a result, coaches and sports practitioners are unable to provide evidence-based advice.

Furthermore, the elements of karate training that are most pertinent to psychosocial development have not always been determined by prior research. The social setting of training, the level of intensity, the teaching expertise, the coach's personal philosophy, and technical characteristics are only a few of the numerous facets of karate. As a result, it is challenging to conduct a scientific examination of the psychological effects of karate training.

On the other hand, psychosocial skills are becoming more widely acknowledged as being crucial in health, sports, and education. Consequently, a more thorough mapping of the literature is required. In order to give a thorough assessment of research features, idea development, and knowledge gaps in this area, the scoping review technique is pertinent. Without restricting itself to efficacy evaluations, this approach enables a better organized comprehension of the world of scientific knowledge.

Given this context, the following research issues are intended to be addressed by this study:

1. Which psychosocial abilities are most frequently linked to karate instruction in the literature?
2. Which karate training elements have the biggest impact on psychosocial skills?
3. Which major gaps in the existing research on the connection between psychosocial skills and karate training require more investigation?

This study attempts to provide a basis for the growth of evidence-based research and practice in the field of sports science by mapping and synthesizing the existing literature in order to shed light on the conceptual formulation of psychosocial skills in the context of karate.

2. Materials and Methods

Study Design

In order to methodically map and synthesize the available data about the contribution of karate training to the development of psychosocial skills in karate practitioners, this study used a scoping review technique. The Preferred Reporting Items for Systematic Reviewers and Meta-Analysis for Review of Reviews (PRISMA-ScR) guidelines are the ones that are utilized [18]. This approach evaluates the data and finds gaps related to the study issue[19].

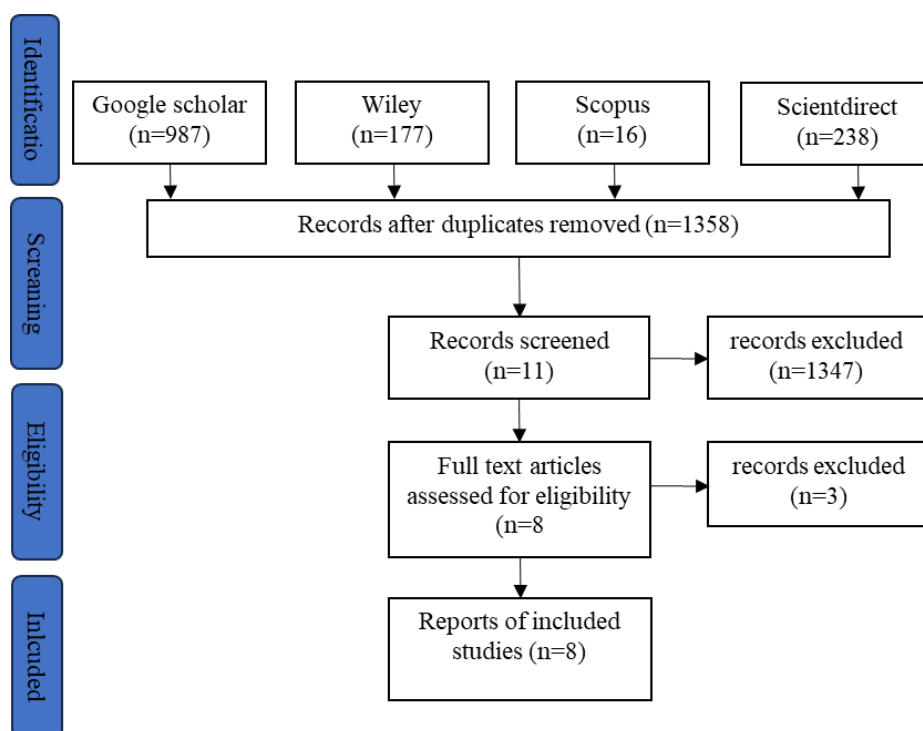
Eligibility Criteria

The inclusion criteria in this study were (1) Empirical research that evaluated karate training as an intervention or primary activity; (2) Measuring psychosocial skills, including: self-confidence, discipline, self-control, emotional regulation, social interaction, mental resilience, or other psychosocial variables; (3) Research subjects were karateka from various age groups and skill levels; (4) Using quantitative, qualitative, or mixed-method designs; (5) Articles published in reputable scientific journals (peer-reviewed); and (6) Written in English. The exclusion criteria were: (1) Focusing on other martial arts (taekwondo, silat, judo, pencak silat, and the like); (2) Not assessing psychosocial aspects; (3) Being an editorial, opinion, commentary, or unpublished thesis; and (4) Not available in full-text form.

Procedures

The research procedures were structured systematically as follows:

- a. Conducting an observational study and analyzing documents in the form of articles to define the research's theme, topic, title, and urgency.
- b. Formulating the problem to focus and meaningfully discuss it.
- c. Searching the Google Scholar, Wiley, Scopus, and ScienceDirect databases for related publications using the Boolean keywords "psychosocial" and "karate" Data were discovered in 987 Google Scholar databases, 177 Wiley, 16 Scopus, and 238 ScienceDirect databases.
- d. The data collected was examined to identify duplicate and related articles, yielding a total of 1,358 articles.
- e. The following stage involved screening the articles, which yielded 11 articles.
- f. The next stage was the screening to find articles that could be downloaded in full, resulting in 8 articles.
- g. Eight articles were decided to be included in the following step of the final paper, which was approved by the research team. For the sake of clarity, the following analysis of the preferred reporting items for systematic reviews-scoping reviews (PRISMA-Scr) is provided:

Table 1. *PRISMA-Scr* flowchart of the research process*Data analysis*

Applications like Publish or Perish, Mendeley, Wiley, Google Scholar, Springer, Scopus, and ScienceDirect helped with data collecting and filtering processes. Data analysis strategies included meaning exploration to better understand how technology affects karate performance [20]. Then, a narrative was created to describe the results of the data analysis.

3. Results

Table 1. Publication frequency 2019-2025

No	Year	Amount	Percentage
1	2019	1	13%
2	2020	0	0%
3	2021	0	0%
4	2022	1	13%
5	2023	0	0%
6	2024	4	50%
7	2025	2	25%
Total		8	100%

Table 2. Research results based on *PRISMA-Scr* analysis

No.	Author	Title	Participant	Method	Results and Conclusions
1	Greco et al. 2019[21]	Karate as an anti-bullying strategy by improving resilience and self-efficacy in school-age youth.	The sample included 50 boys and 50 girls aged 14 to 16 years.	A 12-week high school-based intervention program was examined through a randomized controlled trial. Data were gathered and recorded at the start of the study (pre-test) and 12 weeks later (post-test).	The findings suggest that a karate-based psychosocial intervention can boost young people's resilience and self-efficacy, making them less likely to participate in violent conduct or become victims of bullying. Conclusion: Karate should be viewed as an effective alternative to failed institutional anti-bullying strategies.
2	Pinto-Escalona et al. 2022 [22]	Individual responsiveness to a school-based karate intervention: An ancillary analysis of a randomized controlled trial.	children aged 7-8 from twenty schools in five European nations.	This study is a supplementary analysis of a randomized controlled experiment that evaluated the effects of a one-year school-based karate intervention	The analysis revealed statistically significant differences between the two groups. Conclusion: School-based sports (karate) programs appear to be extremely helpful for children who have psychosocial challenges and poor academic performance.
3	Purnomo et al. 2024[23]	Sports participation, family communication, and positive youth development.	The study included 105 participants: 78 boys and 27 girls. The athletes in this study have participated and trained extensively for 1-2 years.	The research design incorporated correlational methods with a quantitative approach.	The findings of this study show that all three variables are positively associated with one another. Conclusion: The researchers advocate that individuals and adolescents participate in sports activities because they improve communication skills within families, which leads to beneficial development for adolescents.
4	Simões et al. 2024[24]	Karate practice: empowering solutions to mitigate school-age bullying <i>Práctica de karate: soluciones empoderadoras para mitigar el acoso escolar en edad escolar.</i>	336 Portuguese children (79 karate practitioners and 257 non-practitioners).	The study design used a quantitative cross-sectional survey design (comparative study). Data were analyzed using the Chi-square test or Fisher's exact test and Cramer's V test.	Karate practitioners are less likely to be victims of aggression than non-practitioners ($p < 0.05$), indicating stronger resistance during the victimization process. Conclusion: Karate practice is advised for children as a means of promoting their psychosocial development.
5	Castillo et al. 2024 [25]	Measuring the Social and Emotional Skills of Hispanic American Students in an Afterschool Karate Program.	The participants were 57 mostly Hispanic students (ages 5-11) engaged in the Tiger and Dragon Youth Center program during the 2018-19 school year.	This study employed a single-stage sampling technique.	Both pre-test and post-test results revealed statistically significant gains in all three categories (persistence, self-control, and social competence). Conclusion: Using martial arts education as the foundation for an after-school program may prove to be a beneficial treatment approach in the future.
6	Pinto-Escalona et al. 2024[26]	Effects of a school-based karate intervention on academic achievement, psychosocial functioning, and physical fitness: A multi-country cluster randomized controlled trial.	The study included 721 children (344 girls and 377 boys), 333 of them were assigned to the control group and 388 to the intervention group.	Twenty schools from five different European countries took part in a cluster-randomized controlled trial.	In terms of academic achievement, the intervention group outperformed the control group by a tiny margin. Conclusion: A one-year school-based karate intervention improved academic success, behavioral difficulties, and physical fitness in elementary school students. The findings

					justify the inclusion of karate in physical education lessons.
7	Maussier et al. 2025[27]	Judo and karate in primary school as a means for the improvement of social inclusion for autistic children.	The study included 31 children with ASD ages 6 to 10, who were randomly separated into two groups.	The quantitative study utilized a one-group pretest-posttest design in an inclusive educational setting.	The study found that all children with ASD finished the program alongside their peers, with statistically significant results ($p < 0.05$) in all three categories examined. Conclusion: Judo and karate in school competitions facilitated the participation of students with ASD in the classroom.
8	Biswas et al. 2025[28]	Effects of Karate Self-Defence Program on Leadership Preferences among Women	A total of 186 female students were purposefully recruited, including 92 karate-trained and 94 untrained participants aged 18 to 22.	The study employed a cross-sectional approach to determine the effect of karate practice on leadership choices.	The findings revealed that the majority of participants (almost 80%) preferred moderate to above-average levels of democratic leadership. Women who practiced karate tended to prefer above-average democratic leadership, whereas untrained women preferred intermediate levels. This study suggests that martial arts training has a substantial impact on women's leadership preferences by supporting a democratic approach, which can improve essential social skills, including mentoring, teamwork, and effective group interactions.

The Preferred Reporting Items for Systematic Review - *scoping review* (PRISMA-Scr) analysis found key findings from eight relevant articles spanning 2019-2025. These findings reveal a pattern regarding the role of karate training in increasing psychosocial abilities in karate athletes. Based on these findings, the discussion section will go into greater detail on the justification, model, instruments, efficacy, problems, and promise of these eight articles in order to address the six research questions (RQ). These findings are intended to fill research gaps and provide insights into game-based interventions for future follow-up.

4. Discussion

RQ1 : Which psychosocial abilities are most frequently linked to karate instruction in the literature?

According to the findings of the literature review, enhanced resilience, self-efficacy, and self-control are the psychosocial abilities that are most commonly identified. According to research on school-based interventions, learning karate is linked to an improvement in participants' adaptive ability, especially when it comes to handling social stressors like bullying [21]. The most prevalent concepts were resilience and self-efficacy [21], shows that karate has the capacity to improve people's judgments of their own competence and capacity to overcome obstacles.

Furthermore, a number of research document gains in social competence, emotional control, and persistence. In line with the repeated, systematic, and rule-based nature of karate instruction, these results show a gain in self-control and perseverance. Karate demands the capacity to restrain impulses, perseverance in learning skills, and sustained concentration. The self-regulation systems that form the foundation of many psychosocial skills are implicitly trained under these conditions.

Furthermore, social skills are crucial. Karate practitioners show less propensity for violent conduct and more adaptable social functioning in comparison research. Within the training setting, the dojo functions as a structured social area that prioritizes instructional hierarchy, standards of conduct, and respect. This bolsters the notion that interpersonal behavior is influenced by social experiences in karate. The connection between karate and leadership preferences particularly among women is another intriguing discovery. [28]. This demonstrates that the psychosocial impacts of karate can encompass more intricate social elements like group dynamics and collaboration orientation in addition to self-regulation.

Resilience, self-efficacy, self-control, perseverance, behavioral and emotional regulation, and social competence seem to be the psychosocial abilities most frequently linked to karate training, according to the findings of the literature review.

RQ2 : Which karate training elements have the biggest impact on psychosocial skills?

The pattern of results enables conceptual interpretations of potentially relevant aspects of karate, even though the majority of studies do not explicitly isolate training components. The training's methodical and structured format is one important component. Karate places a strong emphasis on technique repetition, precise performance criteria, and gradual evaluation via a ranking system. Theoretically, this kind of training setting promotes the growth of self-control, perseverance, and cognitive-behavioral control.

Internalizing karate ethics and ideals is another important factor. Dojo etiquette, respect, and self-control are social conventions that influence behavior rather than being only ceremonial practices. Through the social learning process, the philosophical aspect of karate has the potential to improve social behavior and emotional control. Social interactions that take place during training also seem to play a role. Rich interpersonal experiences are produced through group dynamics, instructor corrections, and partner training. This explains why some research indicates improvements in social skills and a decline in aggressive inclinations.

The literature's predominantly school-based setting also implies that karate can have a wider influence when incorporated into educational settings. In this case, karate interacts with the school's social and educational environment rather than existing in a vacuum, which is likely to strengthen its psychological benefits. Therefore, the following elements of karate instruction are most likely to support psychological development: Internalization of the dojo's ethical and philosophical beliefs; a system of development and progressive mastery; social dynamics and interaction during training; and a pedagogical setting (such as school-based programs).

RQ3 : Which major gaps in the existing research on the connection between psychosocial skills and karate training require more investigation?

Even if the results indicate a promising trend, there are still a number of significant gaps. First, the causal processes between karate training and psychological changes are still poorly explained in the research. The majority of research document differences or correlations, but they haven't fully explained how the training process results in these modifications.

Second, the definition and assessment of psychosocial skills differ greatly. The comparability of outcomes is limited by variations in conceptual conceptions and tools. This suggests that future studies should use a more consistent theoretical framework.

Third, there is currently a dearth of research on certain training factors. A number of factors have not been thoroughly examined, including training intensity, length of commitment, teaching style, and karateka experience levels. In actuality, these factors significantly impact the training experience during sports practice.

Fourth, there are currently few generalizations to competitive athletes, adults, or non-educational contexts because most research focuses on school-based contexts and kid populations. Additionally, there aren't many longitudinal studies that document long-term psychological development.

These gaps demonstrate that there is still much space for improvement in this subject, especially in the areas of longitudinal designs, more controlled experimental research, and investigation of the psychological and pedagogical mechanisms of karate.

5. Conclusions

A scoping review of eight relevant articles found that: (1) The following psychosocial abilities are most frequently linked to karate training: social competence, self-efficacy, resilience, self-control, perseverance, behavioral and emotional regulation, and (2) the elements of karate training that are most likely to support psychosocial development: a structured, repetitive training program, progressive mastery and a progression system, Dojo ethics and philosophical values are internalized, Pedagogical context (e.g., school-based programs), social dynamics and training interactions, (3) There is still much space for improvement in the current literature gap about the relationship between karate training and psychosocial skills, especially in the areas of longitudinal designs, more controlled experimental research, and investigation of the psychological and pedagogical mechanisms of karate.

As a result, more study is needed to utilize a longitudinal design, more standardized psychosocial evaluation instruments, and to investigate mediating mechanisms that explain the impact of karate training on psychosocial development. With this methodological improvement, karate training has the potential to become a strategic approach to character development and psychosocial well-being in educational and sports settings.

Informed Consent Statement: Written consent was obtained from all research participants.

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Conflicts of Interest:

All authors declare no conflict of interest

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