



The Effectiveness of Self-Talk in Enhancing Athletic Performance and Mental Resilience: A Systematic Review

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Abstract

Self-talk plays a crucial role in enhancing athletes' motivation and self-confidence, helping them manage anxiety, and improving overall performance. This study aims to systematically review the effectiveness of self-talk strategies in sports contexts, particularly in addressing the common issues of low motivation and self-confidence among athletes. A Systematic Literature Review (SLR) was conducted by identifying and analyzing relevant peer-reviewed articles published between 2014 and 2024 from major academic databases such as PubMed, Scopus, and Web of Science. The inclusion criteria were limited to full-text English-language articles indexed in reputable journals. The findings demonstrate that self-talk interventions significantly contribute to athletes' psychological well-being by boosting confidence, enhancing emotional regulation, and reducing performance anxiety. Furthermore, both instructional and motivational forms of self-talk have been shown to support cognitive control before and during competitions. This review highlights the value of self-talk as an accessible and effective mental training tool that should be integrated into athletic development programs across various sports disciplines.

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INTRODUCTION

Sports are a widely favored physical activity that play a vital role in human life. Beyond promoting health and physical strength, sports also serve as a means of recreation and a platform for achieving excellence (Ramadhani, 2020). Many individuals channel their hobbies through sports, which can ultimately lead to notable achievements (Mustofa, 2024). In fact, sporting success often becomes a symbol of national identity on the international stage. Various types of sports are taught from elementary to tertiary education as a means to instill values such as sportsmanship and teamwork (Widodo & Nurwidawati, 2019).

Sports can be categorized into two main types: individual and team sports. Athletes who compete individually tend to experience higher levels of anxiety compared to those in team sports. Individual athletes often engage in more intense preparation as their success is entirely dependent on personal ability and training (Kajbafnezhad et al., 2011). However, the burden of responsibility can lead to feelings of shame or guilt in the event of failure (Nixdorf et al., 2016). Additionally, sports involving direct physical contact, such as martial arts, are known to induce higher anxiety levels than non-contact sports (Sukadiyanto, 2019). Martial arts are particularly associated with heightened anxiety due to their competitive intensity and the psychological demands placed on athletes. Contributing factors include cognitive anxiety (negative thoughts and worry) and somatic anxiety (physiological responses) experienced before and during competition. Fernández (2020) found that athletes in combat sports such as judo, taekwondo, and kendo exhibited higher levels of both cognitive and motor anxiety, with judo athletes specifically reporting elevated phobic and interpersonal anxiety.

Research indicates that anxiety can significantly influence an individual's self-confidence. A study by Lee et al. (2012) found that individuals experiencing high levels of anxiety often perceive themselves as less capable and show lower levels of self-confidence in

social situations. This suggests that anxiety can act as a barrier to developing and maintaining a healthy sense of self-efficacy. Self-confidence is a crucial psychological factor that directly affects athletic performance (Kuloor & Kumar, 2020). Athletes with strong self-confidence can perform optimally even when they have technical or physical limitations (Kim et al., 2019). Nevertheless, studies reveal that many athletes across different sports such as volleyball, archery, and basketball suffer from low self-confidence, which negatively impacts their performance (Purnomo & Hariono, 2020; Yachsie et al., 2021; Tifani, 2019).

One key technique known to enhance self-confidence is self-talk—a psychological strategy where individuals speak to themselves to regulate thoughts and emotions. Self-talk helps athletes cope with pressure both before and during competition (Olisola & Olaitan, 2021). Numerous studies have demonstrated the effectiveness of self-talk in improving athletic accuracy, speed, and precision in sports like basketball, golf, and marathon running (Boroujeni & Shahbazi, 2021; Lukas, 2019; Hatziageorgiadis et al., 2019).

Adolescents, particularly those actively involved in sports, frequently face considerable mental pressures. Implementing techniques such as self-talk can be an effective tool to boost their confidence when facing such challenges. Adolescence is a critical period for athlete development, marked by physical and emotional changes that can affect self-esteem. Young athletes are especially prone to feelings of worry, fear of failure, and low self-worth (Boughattas et al., 2022). Thus, tailored mental training programs are essential to support their growth and development.

Hardy et al. (2020) advocate for the development of self-talk instruments that focus on functional objectives rather than merely distinguishing between positive and negative self-talk. This approach seeks to optimize how self-talk can be applied in enhancing athletic performance.

In summary, self-confidence is a key

determinant of athletic success. Individuals who believe in their abilities are more resilient under pressure and capable of delivering peak performance. Among various psychological strategies, self-talk has emerged as one of the most effective tools for cultivating confidence, alleviating anxiety, and reinforcing self-efficacy. Positive self-talk helps athletes stay focused, manage stress, and strengthen the belief that they can achieve their goals. Therefore, further research is necessary to develop more refined and personalized self-talk strategies tailored to the psychological needs and characteristics of athletes across different sports disciplines.

METHOD

In this systematic literature review, the search strategy was conducted by formulating relevant terms such as “self-talk,” “athlete,” “sport performance”, and other keywords related to the research topic. The literature search was focused on online databases including PubMed, Scopus, Web of Science, Semantic Scholar, and conference proceedings. Only articles published in English and available in full-text format were considered. The publication period was limited to the last ten years (2014–2024) to ensure the relevance and currency of the reviewed data.

Data Collection

The data were collected from peer-reviewed journals that investigated the effects of self-talk on sport performance or psychological variables such as anxiety, motivation, and self-efficacy. Selected studies involved athletes of various levels, ranging from beginners to elite athletes, and covered a wide range of sports, including swimming, badminton, kickboxing, and endurance sports. Priority was given to studies that employed experimental or intervention designs, whether short-term or long-term. Articles that were not aligned with the main focus of the research or were only available in abstract form without full-text access were excluded from this review.

Data Extraction Process

After identifying the relevant articles, data extraction was carried out to obtain essential information. Extracted data included the authors' names, year of publication, number of participants, athlete characteristics, research design, key findings, conclusions, and inclusion rationale. This process began with a review of article titles, followed by abstract screening, and concluded with a thorough examination of the full text. Through this systematic approach, the collected findings were analyzed in depth to understand the impact of self-talk on athletic performance and athletes' psychological outcomes.

RESULTS

Based on the search results and subsequent screening process, a total of 282 articles were initially identified. The first phase of screening involved reviewing the titles to eliminate irrelevant articles, which resulted in 38 articles deemed to meet the initial criteria. These 38 articles were then subjected to further evaluation by reviewing their abstracts and full texts. Ultimately, 11 articles were selected for in-depth analysis.

This review aims to provide an overview of the effectiveness of self-talk in the context of sports. The data sources used in this review include articles from PubMed, Scopus, Web of Science, Semantic Scholar, and conference proceedings, focusing on the topic “The Impact of Self-Talk in Sports.” After a series of systematic screening stages, the final selection consisted of 11 relevant studies, as detailed in Table 1.

Table 1 Systematic Review.

No	Penulis	Judul	Tahun	Hasil Penelitian
1	Izet Kahrović, Oliver Radenković, Fahrudin Mavrić, Benin Murić	Effects Of The Self-Talk Strategy In The Mental Training Of Athletes	2014	Atlet sukses cenderung menggunakan <i>Self-talk</i> positif lebih sering daripada yang kurang sukses. Teknik ini efektif meningkatkan performa, kepercayaan diri, dan mengurangi kecemasan di berbagai cabang olahraga.
2	Yusuf Hidayat, Yunyun Yudiana, Burhan Hambali, Kuston Sultoni, Umit Dogan Ustun, Chatkamon Singnoy	The effect of the combined self-talk and mental imagery program on the badminton motor skills and self-confidence of youth beginner student-athletes.	2023	Studi ini menemukan bahwa <i>Self-talk</i> dan <i>Mental Imagery</i> , baik sendiri maupun kombinasi, secara signifikan meningkatkan kemampuan motorik dan kepercayaan diri siswa-atlet bulutangkis pemula, mendukung efektivitasnya dalam pengembangan fisik dan psikologis.
3	Fabien A Basset, Liam P Kelly, Rodrigo Hohl, Navin Kaushal	Type of Self-talk matters: Its effects on perceived exertion, cardiorespiratory, and cortisol responses during an iso-metabolic endurance exercise.	2022	Penelitian ini menemukan bahwa <i>Self-talk</i> negatif meningkatkan upaya, ventilasi, frekuensi napas, dan kortisol lebih tinggi dibanding <i>Self-talk</i> positif atau kontrol disosiatif selama latihan ketahanan 60 menit. Manipulasi <i>Self-talk</i> , terutama negatif, memengaruhi respons hormonal, fungsi kardiorespirasi, dan persepsi usaha.
4.	Nadja Walter, Lucie Nikoleizig, Dorothee Alfermann	Effects of Self-Talk Training on Competitive Anxiety, Self-Ecacy, Volitional Skills, and Performance: An Intervention Study with Junior Sub-Elite Athletes	2019	Penelitian ini menunjukkan bahwa pelatihan <i>Self-talk</i> jangka panjang (8 minggu) lebih efektif dibanding jangka pendek (1 minggu) dalam mengurangi kecemasan, meningkatkan kepercayaan diri, efikasi diri, keterampilan mental, dan performa atlet muda. Intervensi ini membantu meningkatkan kondisi psikologis dan performa atlet junior.
5	Alexander T Latinjak, Cristina Hernando-Gimeno, Luz Lorida-Méndez, James Hardy	Endorsement and Constructive Criticism of an Innovative Online Reflexive Self-Talk Intervention.	2019	Penelitian ini menemukan bahwa intervensi <i>Self-talk</i> refleksif <i>online</i> selama 4 minggu meningkatkan kesadaran dan konten <i>Self-talk</i> atlet, mendukung emosi, motivasi, dan kepercayaan diri dalam dan luar olahraga.
6	Maamer Slimani, Abdelaziz Hentati, Majdi Bouazizi, Driss Boudhiba, Imen Ben Amar, Foued Chéour	Effects of Self-Talk and Mental Training Package on Self-Confidence and Positive and Negative Affects in Male Kickboxers	2016	Paket pelatihan mental yang menggabungkan <i>Self-talk</i> dan <i>Imagery</i> lebih efektif meningkatkan kepercayaan diri dan emosi positif dibandingkan <i>Self-talk</i> motivasi saja, dengan keuntungan tambahan dari strategi gabungan.
7	Antonis Hatzigeorgiadis and Evangelos Galanis	Self-talk effectiveness and attention	2017	<i>Self-talk</i> terbukti meningkatkan fokus, performa olahraga, dan mengatasi gangguan serta penipisan ego, dengan perhatian sebagai mekanisme utamanya.
8	Styliani Kyriaki Georgakaki, Eirini Karakasidou.	The Effects of Motivational Self-Talk on Competitive Anxiety and Self-Compassion: A Brief Training Program among Competitive Swimmers	2017	Studi ini menemukan bahwa pelatihan <i>Self-talk</i> motivasional meningkatkan penggunaan <i>Self-talk</i> , mengurangi kecemasan kompetitif, dan meningkatkan <i>self-compassion</i> pada perenang kompetitif dibandingkan kelompok kontrol.

Table 1 Systematic Review.

No	Penulis	Judul	Ta- hun	Hasil Penelitian
9	Anthony William Blanchfield, James Hardy, Helma Majella De Morree, Walter Staiano, Samuele Maria	Talking Yourself Out of Exhaustion: The Effects of Self-talk on Endurance Performance	2014	<i>Self-talk</i> yang memotivasi secara signifikan meningkatkan kinerja ketahanan, yang diukur dengan waktu untuk kelelahan selama tes bersepeda. <i>Self-talk</i> yang memotivasi secara signifikan mengurangi persepsi usaha pada 50% tes bersepeda, dibandingkan dengan kelompok kontrol.
10	Antonis Hatzigeorgiadis, Evangelos Galanis, Nikos Zourbanos, Yannis Theo-	Self-talk and Competitive Sport Performance	2014	Intervensi <i>Self-talk</i> selama 10 minggu menghasilkan peningkatan performa yang lebih besar pada perenang muda dibandingkan dengan kelompok kontrol. Temuan ini memberikan arahan untuk mengembangkan intervensi <i>Self-talk</i> yang efektif untuk meningkat-
11	K. Bradford Cooper, Mark R. Wilson & Martin I. Jones	Fast talkers? Investigating the influence of selftalk on mental toughness and finish times in 800- meter runners	2020	Intervensi <i>Self-talk</i> yang dipersonalisasi meningkatkan ketangguhan mental dan waktu penyelesaian pada pelari 800 meter, meskipun tidak konsisten memengaruhi persepsi usaha atau keinginan melambat. Peserta mencatat peningkatan signifikan meski merasa telah berusaha maksimal sebelumnya.

DISCUSSION

The reviewed studies consistently highlight the significant impact of self-talk on athletic performance, psychological variables, and emotional regulation. For example, Kahrović et al. (2014) found that successful athletes utilized more positive self-talk than their less successful counterparts. This technique was shown to improve athletic performance, boost self-confidence, and reduce anxiety. These findings are further supported by Hatzigeorgiadis and Galanis (2017), who emphasized that self-talk enhances attentional focus and helps athletes overcome distractions, thereby improving performance.

The effectiveness of self-talk is also evident when combined with other mental training strategies. Slimani et al. (2016) demonstrated that the combination of self-talk and mental imagery yields greater benefits than self-talk alone, particularly in enhancing self-confidence and emotional regulation among kickboxing athletes. This underscores the value of a comprehensive mental training approach.

Furthermore, the duration of self-talk

training plays a role in its effectiveness. Walter et al. (2019) found that long-term self-talk training (8 weeks) was more effective than short-term interventions (1 week) in reducing anxiety, enhancing self-efficacy, and strengthening willpower. This suggests that extended practice may lead to more substantial and sustainable improvements.

Several studies also explored self-talk's influence on specific variables such as endurance performance and competitive anxiety. Blanchfield et al. (2014) observed that motivational self-talk significantly improved endurance during cycling tests by reducing perceived exertion. Meanwhile, Georgakaki and Karakasiadou (2017) noted that motivational self-talk not only lowered competitive anxiety but also enhanced self-compassion, reflecting its dual benefit for both performance and athlete well-being.

A recent study by Hidayat et al. (2023) further revealed that combining self-talk with mental imagery improved motor skills and self-confidence in beginner student-athletes, particularly in badminton. This supports the notion that self-talk strategies can be effectively

adapted for novice athletes and still yield significant outcomes.

In addition, Latinjak et al. (2019) developed an online reflective self-talk intervention that helped athletes enhance their awareness of their self-talk content. This intervention allowed for refinement of self-talk strategies to better support emotions, motivation, and confidence, both within and outside the sporting context.

Collectively, these studies offer a comprehensive perspective on the benefits of self-talk—whether used independently or alongside other techniques. As such, self-talk training can be considered a vital component of mental skills development programs designed to enhance athletes' performance and psychological resilience.

CONCLUSION

Extensive research indicates that self-talk, or the internal dialogue individuals have with themselves, has a significant influence on athletic performance across a wide range of sports. Positive self-talk consistently enhances athletic performance, boosts confidence, and reduces anxiety, whereas negative self-talk tends to have the opposite effect. Long-term self-talk training has been shown to be particularly effective in improving both psychological outcomes and performance metrics. Self-talk serves as a valuable tool for managing anxiety, sharpening attentional focus, and enhancing endurance during physical activity. Personalized self-talk interventions are more effective than generic ones in optimizing performance and building mental toughness. Positive self-talk works through multiple mechanisms, including increasing motivation, lowering anxiety, improving concentration, and enhancing resilience. Athletes aiming to improve their performance through self-talk should engage in consistent practice, tailor their self-talk to personal goals, and integrate it with other mental training strategies. Self-talk is a powerful psychological strategy that can help athletes realize their full potential.

Collaboration with qualified professionals is recommended to develop customized self-talk programs that align with individual psychological needs and sport-specific demands.

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