



Mental Practice for Adolescent Tennis Players: Mental Imagery, Self-Talk, and Goal Setting

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Author note

As an avid tennis player and passionate researcher, it has been an incredible journey to delve into the intricate relations between the mind and the sport of tennis. Drawing on the latest research in sports psychology, I have strived to provide a comprehensive overview of the physiological underpinnings of mental skills and how they can be applied to tennis. By examining the cognitive processes involved, this review should provide valuable insights into the development and refinement of mental skills for tennis players. May this review inspire you to explore greater depths of your mental capacities and empower you to achieve new heights in your tennis game.



Abstract

Studies show that mental imagery, self-talk, and goal setting are three important aspects of developing a well-rounded and strong tennis player (Chandler et al., 2022). Mental imagery can enhance vivid visualization; self-talk can positively influence emotions and attitude; and goal setting is essential to creating the right path for any tennis player. This paper will provide suggestions for young tennis players to improve mental practice that contributes to the game to enhance performance in the long run. It is recommended that coaches and athletes incorporate mental imagery, self-talk, and goal-setting practices into their training regime as it is likely to lead to positive results.

Keywords: mental imagery, self-talk, goal setting, mind, performance



Introduction

Tennis is not just a physical game, but also a psychological one. Coaches spend a significant amount of time working and fine-tuning their players' technical side of the game but it is important to realize the mental side of tennis as well. The purpose of this review is to increase the youth tennis community's awareness of the importance of psychological strategies as coaches and players do not spend enough time working on it (Chandler et al., 2022). The review seeks to inform youth players about three aspects of the mental side of tennis: mental imagery, self-talk, and goal setting.

In general, sports practice involving both physiological - technical strategy and physical components (fitness, athleticism) and psychological strategies - like visualizing your best shots in practice allowing you to gain confidence during matches increases the likelihood of athletic success (Smith, 2007). For example, mental imagery can help players with visualization during or before a tennis match (Dana & Gozalzadeh, 2017). It is a widely known technique used to create detailed vivid imagery of specific aspects of the game, such as ball placement or wanted outcome.

This review will cover the different variations of mental imagery, which would in turn help players in overall performance, confidence, technique, and tactics. Other research papers have studied this topic but mainly on mental imagery, my research paper also includes how to talk to your inner mind and how to create effective goals for your future (Chandler et al., 2022; Pearson et al., 2015).

Additionally, this review will highlight how self-talk can help boost energy and confidence during a match. Self-talk is how our inner voice communicates with one's mind (The Inner Game of Tennis, 1997)

It often influences emotions and ultimate performance and results on the court. Positive self-talk can help a player get through tough moments during matches; however, negative self-talk can contribute to defeating thoughts and lowering their confidence on the court (The Inner Game of Tennis, 1997). Through this review, readers will learn different self-talk strategies and techniques to enhance young players' self-talk and performance on the court.

The final section of this review will address goal setting to help set players on the right path to success (Locke & Latham, 1985). Goal setting is crucial in helping a player progress towards a wanted outcome. It is a way for players to keep track of their progress, stay motivated, and have a clear specific goal to work towards. By setting realistic and effective goals, which will be discussed later in this review, players can maximize their potential on the right path and mindset. Readers will learn about SMART goals, the different types of goals, and most importantly having an effective end goal.

Tennis is a sport that requires a tremendous amount of mental and physical capacity under the boiling heat of the sun for hours. What separates the good and the best players is their skillset to maintain focus and composure in the face of adversity (e.g., hitting a bad shot, accepting it, moving on, forgetting the past, and staying in the present) (The Inner Game of Tennis, 1997). By implementing these physiological techniques and strategies mentioned above into players' training regimes, young rising tennis players can work towards achieving their highest potential.



Mental Imagery

Mental imagery is one of the main tools professional athletes use to enhance their athletic performance. It is a multi-sensory process that allows your mind to create a vivid mental image of a particular situation (Quinn, 2021). For example, tennis players create explicit and specific situations on the court in their minds, whether it be serving or hitting an unbelievable shot. Visualizing specific occasions in their minds repeatedly helps build confidence, improves muscle memory, and reduces pressure (Chandler et al., 2022). This technique has gained international popularity among athletes from different sports. For instance, Seve Ballesteros's (Former World no.1 Golfer) used the mental imagery technique on the way to one of the most prestigious golf tournaments of all time, the Augusta National Masters tournament. His friend gave him a fake audio tape that announced the winner of the Masters tournament where he was interviewed at the prize ceremony. Seve listened to this fake audio tape over and over again before the tournament until the fake news became a reality in his mind. Seve ultimately won the tournament, and when he was interviewed, he stated that he was not surprised as he had already lived through that moment in his mind (The Inner Game of Tennis, 1997).

Visualization enables athletes to build muscle memory and practice their mental image in a safe environment (Quinn, 2021). When athletes create a self-mental image of themselves performing a specific action, they repeat the action again and again in their minds without the risk of sustaining an injury that could happen during physical practice. In a study evaluating adolescent tennis players, researchers found that *internal mental imagery* (a form of imagery in which subjects imagine what they would feel inside their bodies) practice led to benefits in their serve performance while *external mental imagery* (occurs when people view themselves performing an act from the perspective of an external observer) was preferred for improving

ground strokes (Dana & Gazalzadeh, 2017). This data suggests that coaches should consider what type of mental imagery they are suggesting to their athletes.

Athletes can be creative with their mental imagery, imagining unique situations to prepare for unlikely events. This can support preparation for the unexpected in important matches. Creating different strategies to play out in their minds is also a possibility. There are an endless number of scenarios and ways to use your mind, especially when it comes to mental imagery, which makes the technique powerful and useful for many athletes (Chandler et al., 2022).

Athletes also benefit from mental imagery as it can contribute to overcoming anxiety and improving their concentration and focus (Quinn, 2021). Creating positive situations in athletes' minds promotes self-belief and confidence in their sport (Chandler et al., 2022). It also reduces negative thoughts that can break down an athlete's mindset during a match and allows the athlete to lose focus and confidence. Negative thoughts (e.g., thinking of all of one's errors) can make an athlete feel helpless during a match as such thoughts can lower an athlete's confidence. In a competitive match, confidence is one of the key elements determining a win or a loss. Mental imagery helps athletes focus and visualize their opponent's moves ahead of time (Pearson et al., 2015). Thinking ahead using mental imagery with time and practice can make an athlete stronger and can often help them transition to the next level of their sport. At such a high level of sport, everyone can perform well during practice and training. What matters is how they act and react to certain important moments during a match. It often all comes down to a player's mental strength (Chandler et al., 2022).

In conclusion, mental imagery is an advantageous technique that should be part of an athlete's daily training routine. Mental imagery does not work like magic; it requires a lot of practice. After mastering these methods of visualization, athletes will benefit greatly by

improving muscle memory, reducing pressure, and understanding the sport at a different level. Mental imagery is key to self-confidence. It trains one's mind to think they are capable of executing all the different scenarios. As it continues to play through one's mind, the more practice an athlete has using visualization, the more confident they will be able to be (Pearson et al., 2015). Apart from this technique, many other techniques can also provide improvement towards an athlete's mental strength, including self-talk.

Self-Talk

Self-talk, the way a person talks to themselves, or a person's inner self/voice can contribute positively or negatively to an athlete's game (Ireland, 2022). Self-talk is most effective when used at the right time, whether before, during, or even after a match (Hardy et al., 2001). When self-talk is used before a match, it usually sets a player's mind with the necessary mindset and goals to start the match. During the match, self-talk can help players stay motivated and concentrated. After the match, self-talk usually is for match analysis and is an opportunity for players to learn from their mistakes.

A study by Van Raalte et al. (1994) evaluated the consequences and factors of self-talk in competitive junior tennis players by measuring observable self-talk and gestures during a match. The results showed that negative self-talk was associated with losing points while positive self-talk was associated with winning points and higher-quality performance.

Negative self-talk can be extremely damaging to players (Theodorakis, 2008). When a player talks negatively to themselves, it is essentially reminding the subconscious mind that the player made a mistake. One of the most important things about self-talk is that the player aims to motivate themselves to be in the present. If a player constantly dwells on past mistakes instead

of being in the present (using positive self-talk to motivate oneself for the current situation), they can lose focus on the task at hand. Novak Djokovic (former world number 1 and 23-time Grand Slam champion) once said before his 2023 Wimbledon final: “If you are not present, things will go wrong for you. I think the recovery of how long you stay in that negative emotion is what differentiates you from the others as it is almost impossible to always stay in the present.”

On the other hand, positive self-talk can enhance a player’s level. A study evaluating the effects of motivational self-talk on self-efficiency and performance on 46 adolescent tennis players showed that the group focused on motivational self-talk had a significant increase in their performance level, including consistency, timing, and shot placement (where the ball lands) (Hatzigeorgiadis et al., 2008). This suggests that players and coaches should practice positive self-talk during matches, as it will benefit the players positively.

If used at the right time with the right words and intention for example just saying this to yourself “forget about this point let’s focus on hitting the ball earlier on the next”, the positives of self-talk could be magnified. Using specific cue words just like the example above and motivational words that relate to a meaningful purpose significantly improves a player’s game (Landin & Hebert, 1999). In another study (Vidic & Burton, 2010) that specifically focuses on the implementation and development of self-talk to improve the volleying of female players, researchers experimented with inputting a “Self-Talk” strategy into a player’s game. After the strategy was implemented, the data showed that players who used this method had their volley skills improve in all different aspects including timing, technique, and consistency. The results suggest that players can use this information in practice to ultimately benefit themselves in a match.

Overall, substantial research has been done on self-talk with consistent positive results. Coaches and players should develop their self-talk methods together to improve. Learning to engage in self-talk is one thing, but learning to deal with self-talk under pressure and managing it when facing adversity takes practice. Setting short-term goals may help players implement these strategies to increase their focus and performance during a match.

Goal Setting

Goal setting is a process in which athletes and coaches establish aims for where they want to be in the future. It is a way for athletes to seek motivation, track progress, and set themselves on the right path (Bird et al., 2023). There are three main types of goals: process goals, performance goals, and outcome goals (Weinberg & Butt, 2014). Outcome goals usually refer to the result. These goals tend to be more straightforward and results-based. For example, reaching the finals of a national tournament or ending the year with a certain rank. Performance goals are more specific. They identify a specific area in which someone wants their game to improve. For example, increasing a serve speed from 100 kilometers (km)/hour (hr) to 110 km/hr. By checking serve speed at different intervals with access to video analysis, these goals become more trackable and are up to one's self to improve. Players have more control of their performance goal outcome than outcome goals. Performance goals have a few variables that players cannot control (e.g., wind, sun, opponent). Process goals deal with the more technical and strategic side of the game. These goals are established based on personal standards and differ from player to player as different players have different levels and expectations. For example, consistently placing a drop shot with its second bounce before the service line 70% of

the time during a match could be a process goal. These goals help players focus on their controlled actions and do not depend on any other variables.

Goals influence and help players at high levels improve in the mental aspect of the game. In an article that measured the improvement of female collegiate tennis players, a quasi-experimental 8-week goal-setting program improved motivation, confidence, and performance (Vidic & Burton, 2010). Dedication to skill development and making effective goals led to these beneficial performance outcomes. This suggests that goal-making has a significant upside and positive effect on players. Thus, coaches should set aside time to instruct their athletes on how to set effective and meaningful goals.

Setting goals in tennis allows a player to maintain focus and stay motivated as they practice and compete, increasing the effort players put in as there is a wanted desire and a goal (Weinberg et al., 1997). With the knowledge of how goals can impact a tennis player's game positively, players need to know how to make an effective goal.

One such example is SMART goals (S: Specific, M: Measurable, A: Achievable, R: Relevant, T: Time-bound) (Rubin, 2002). The specifications for SMART goals are as follows. Specific: What will you achieve? What is the purpose of this goal? Measurable: What and how you will use data to decide your progress on the goal? Achievable: Is this goal realistic? Do you have the resources and skills to reach it? Relevant: How does this goal benefit you or your community? Time-bound: What is the time frame for this goal? Having these parameters in your goal allows it to be realistic and attainable within a certain timeframe (Rubin, 2002).

For example, a SMART goal would be: "By the end of the year, I will improve my serve consistency by increasing my first serve percentage from 60% to 75% in competitive matches." Specific: The goal specifies the aspect of the game to be improved, which is the serve

consistency, focusing on the first serve percentage. Measurable: The goal is measurable as it can be tracked by recording the percentage of successful first serves in competitive matches. Achievable: The goal is achievable as it sets a reasonable increase from the current first serve percentage of 60% to 75% over the course of a year. It allows for gradual improvement and practice. Relevant: The goal is relevant to the player's overall performance in tennis, as a strong and consistent serve can provide a competitive advantage and help dictate the flow of the match. Time-bound: The goal has a specific time frame of one year, providing a clear deadline for the player to work towards and evaluate their progress. By setting a SMART goal like this, the tennis player can establish a focused objective, track their progress, and work diligently towards improving their serve consistency within a realistic timeframe.

SMART goals are designed to be extra specific and clear. They have a clear outcome, process, and performance goal all in one. When a goal contains all these elements, it becomes easier and clearer for an athlete to track, follow, and accomplish the goal that they have set. Using the SMART acronym format to create goals simplifies the process rather than making a goal without a format (Bird et al., 2023). With these principles, players can have an increased chance of success and a more desired outcome (Rubin, 2002).

Conclusion

Mental imagery, self-talk, and goal setting are three effective tools young tennis players can use to enhance their mental aspect of the game. Mental imagery contributes to the amount of focus and precision that can be put on the court and off the court. Practicing positive self-talk allows players to gain confidence and energy during a match. Implementing practical and effective methods of goal setting allows players to have a clear focus and more purpose (Quinn, 2021). Thus, if young players start to practice these aspects in their regular training regime, they may be able to reach a higher potential. Coaches should consider these important physical and technical practices as they work together with their athletes to strategize on how to incorporate these skills into their game. Implementing these practices takes time, dedication, and consistent practice to master. These findings can be used to help young players improve their mental exercise of tennis and unlock their full potential.

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