

The Effectiveness of Visualization Techniques and Mental Log Journaling in Enhancing the Mental Toughness of a Karate Athlete: A Case Study

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ABSTRACT: The problem of mental toughness in student athletes is an important concern because it directly influences the achievement of optimal performance. This research aims to increase mental toughness through psychological interventions based on visualization and journaling techniques. The research subject was a female karate student who showed symptoms of low self-confidence, difficulty in managing emotions, and anxiety when competing. The research was conducted in three intervention sessions carried out in three meetings. Each session consists of guidance on filling out a mental log, positive visualization exercises, and reflective journal writing. Measurements were carried out before and after the intervention using the mental toughness questionnaire. The research results showed an increase in mental toughness scores from the moderate to very tough category, as well as an increase in self-confidence, emotional management, and performance during training. These findings indicate that visualization and journaling techniques are effective in supporting the strengthening of mental toughness in student athletes.

Keywords: Mental Toughness, Visualization, Journaling



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INTRODUCTION

Extracurricular activities are an integral part of the educational process at school which aims to develop students' potential and skills outside of academic learning. One of the extracurricular activities that is in great demand is sport, including karate. At Al Islam Kudus Vocational School, karate is one of the mandatory extracurriculars which is expected to form students' discipline, physical endurance and mental strength.

However, behind this success, athletes face significant psychological challenges, such as low self-confidence, anxiety before competitions, and difficulty managing stress. The interviews conducted showed physical symptoms such as weakness and nausea, which indicated emotional instability that needed to be treated psychologically. Apart from that, difficulties in managing time between academic activities and training also become obstacles in developing their potential.

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Overcoming psychological problems in student athletes is very important, especially for those who have great potential to continue to develop. Based on the situation analysis, an intervention program is needed which aims to increase the subject's mental toughness as an athlete. This intervention focuses on managing stress, increasing self-confidence, and strengthening mental aspects through a psychological approach that has been proven effective in various studies.

Several studies show that visualization and journaling techniques are effective in increasing mental toughness. Visualization helps athletes imagine positive situations and develop strategies for dealing with pressure, while journaling allows the process of reflecting on emotions and experiences experienced during training. It is believed that the combination of these two techniques can strengthen athletes' mental toughness, thus supporting improved performance when competing. According to Sheard (2012), mental toughness is a skill that can be developed consistently to achieve peak performance. Meanwhile, Gucciardi et al. (2008, in Noviansyah & Jannah, 2021) explains that mental toughness includes values, attitudes, behavior and emotional regulation that enable athletes to survive and overcome various obstacles and pressures. Additionally, Jones et al. (2007) also emphasized that mental toughness can help athletes manage anxiety and minimize the impact of external pressure during competition.

Based on this foundation, this intervention program is designed to increase the subject's mental toughness through visualization and journaling approaches. The intervention aims to help athletes build self-confidence, manage anxiety, and maintain focus and composure in competitive situations. In addition to short-term improvements in performance, this intervention is also expected to equip subjects with long-term skills that can be applied to the challenges of life and future athletic careers. The ability to manage time between academics and training is also one of the strengthening targets.

METHOD

The intervention was carried out in three meetings with the subject with the initials N, a class XI student at Al-Islam Kudus Vocational School. The subject was chosen based on his achievements in sports, especially karate, where he had just won second place in a student competition. Even though he has shown impressive achievements, the interview results show that N still experiences difficulty in managing anxiety and low self-confidence before and during the match. Based on these conditions, N was chosen as an intervention participant in the hope that it could help improve his mental toughness so that his performance in future competitions could be more optimal.

The initial stages before implementing the intervention include determining targets, developing methods, and creating intervention modules as implementation guides. After the module was completed, the intervention was carried out in three meetings using a combination approach of interviews, measurements using the Mental Toughness Questionnaire (SMTQ) Scale, as well as treatment based on journaling and visualization techniques. During the intervention process, the subject was accompanied by three facilitators who were members of one implementation team.

Each intervention session includes positive visualization exercises to imagine success and coping strategies, as well as journaling to help subjects explore emotions, experiences, and self-reflection after practice or game simulations. This process is carried out systematically and gradually with

reinforcement and direction from the companion.

RESULTS AND DISCUSSION

The intervention was given to one of the karate athletes who was a student at Al-Islam Kudus Vocational School, with the initials N. Based on the results of the initial interview, it was discovered that athlete N had a relatively low level of mental toughness, characterized by a lack of self-confidence, difficulty in managing emotions, anxiety before the match, and an inability to remain calm in stressful situations. The weakest aspects of mental toughness were identified in the dimensions of confidence and self-control. Meanwhile, in the aspect of constancy, N has shown good focus of attention during competition, although it is still accompanied by fear.

Based on these findings, the intervention provided focused on increasing mental toughness through two techniques, namely visualization and mental log journaling. Improving mental skills is considered to be in line with increasing self-confidence, which can be trained through visualization exercises. Athletes who are used to visualizing before competing generally have higher self-confidence, because they have prepared themselves mentally and understand the steps they will take, without being too burdened by the final result such as winning or losing (Jannah & Satriya, 2017).

In implementing this intervention, the researcher accompanied athlete N to carry out visualization exercises every time there was a karate training schedule. After the training session was finished, N was guided to fill in the mental log that had been prepared. The mental log contains notes about how the exercise went, evaluation of mental condition during the exercise, as well as reflections on the experiences felt. These notes are important material for identifying psychological obstacles faced by athletes, as well as being the basis for strengthening visualization in the next session. Visualization exercises are designed to help erase negative thoughts or bad experiences during training, and rebuild the athlete's confidence ahead of the next training session.

After carrying out the visualization exercise, athlete N was also directed to write down the experience in journaling form using the module provided. This journaling is a continuation of the visualization carried out, where the athlete reflects on the processes, emotions and thoughts that arise. Kosasih (2005) states that a diary is a personal record that reflects daily experiences and feelings, which functions as a forum for expressing emotions that are difficult to express to other people, such as anger, disappointment, or happiness. Apart from that, writing a diary also has benefits as a record of your life journey, a medium for creativity, storing important ideas, as a means of self-reflection, and building self-confidence through honesty in writing (Triayu & Sinaga, 2022).

Through a combination of visualization and mental log journaling, it is hoped that N athletes will be able to more easily express and understand their emotional conditions, as well as strengthen their self-confidence and mental resilience during the training process and before the competition.

Implementation of Intervention

The intervention was carried out over three meetings in accordance with the intervention module that had been prepared previously. At the first meeting, the researcher started the activity by giving a pre-test in the form of a mental toughness scale consisting of 14 items to athlete N, immediately

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after he finished the karate training session. After filling in the pre-test, the researcher distributed the mental log journaling module and guided the athletes in understanding how to fill in the module based on the experiences they had during training.

The module consists of several core parts. The first part is the mental log, which contains records of training activities as well as mental evaluations to determine the athlete's condition of determination, emotional control and self-confidence during the training session. Next, there is a daily analysis which includes reflections on things that went well, challenges faced, strategies used, and results achieved that day. Researchers read and analyzed the contents of the module that had been completed by athlete N to find out the main problems experienced, so that the visualization techniques that would be provided could be adapted to the athlete's personal needs and context.

The researcher then gave visualization exercises to the athlete by guiding N to close his eyes and imagine positive things that were the opposite of the challenges he experienced during training. This visualization focuses on imaging yourself as more confident, calm, and able to face training targets with better mental readiness. This training aims to rebuild self-confidence and the ability to control emotions in dealing with the pressure of training and competition.

After the visualization session is complete, the athlete is guided to write down the experience in journal form in the module provided. This activity includes the expression of thoughts, feelings, and mental images that emerge during the visualization process. Journal writing aims to help athletes reflect and integrate emotional and cognitive experiences that occur during visualization exercises. Thus, journaling functions as a means to strengthen self-awareness, improve emotional regulation, and build better mental readiness in facing the next exercise.

At the second meeting, the researcher again guided athlete N to fill in the mental log in the module provided. This section includes activity records during training sessions as well as mental evaluations that reflect the level of determination, emotional control and self-confidence during training. Next, athletes are directed to complete a daily analysis, which includes identifying things that went well, challenges faced, strategies used, and results achieved on that day.

After all these sections were filled in, the researcher read and understood the notes made by athlete N to identify the main problems faced during training. Based on these findings, researchers then guided athletes to carry out visualization exercises that were adapted to the context of the problems that emerged. The visualization technique is carried out following the steps outlined in the module and is actively followed by athlete N.

Athletes are then directed to write down the visualization results in the journaling section of the module after carrying out the visualization process. This article contains mental images, feelings, and meaning that emerge during the visualization process, which aims to strengthen the reflection and integration of the athlete's emotional and cognitive experiences during the session.

At the second meeting, the researcher also guided athlete N to fill in *mental log* in the module which consists of training session activities and mental evaluation to find out how firmness, emotional control and self-confidence are during training. Then you are guided to fill in a daily analysis in the form of what went well, challenges, strategies used and results achieved in that day's training. Next, the researcher read and understood the problems faced during training that day. Then the researcher guided athlete N to carry out visualization techniques based on the

problems faced during the training. The researcher carried out visualization according to the steps explained in the module and was followed by athlete N. After visualization, continued by writing what results were imagined during the visualization process in the module section *journalling*.

The third meeting was the final session in a series of interventions carried out on athlete N. As in the previous session, the researcher guided the athlete to fill out a mental log in the module, which included activities during the training session as well as a mental evaluation of self-determination, emotional control and self-confidence. Athletes are also directed to complete a daily analysis, which includes things that went well, challenges that arose, strategies used, and results achieved during that day's training.

After reading and understanding the problems noted by the athletes in the module, the researcher continued with a visualization session adapted to the obstacles faced during training. Athletes are asked to imagine positive situations that are the opposite of the problems that arise, in order to rebuild self-confidence and emotional control. After the visualization is complete, the athlete is directed to write down the visualization experience in a journal section, including feelings, mental images, and reflections during the process.

As the end of the series of interventions, athlete N was then asked to fill out a post-test in the form of a mental toughness scale with 14 items, the same as the pre-test at the first meeting, in order to measure the changes that occurred after implementing the intervention.

Based on the results of mental log journaling during the three intervention sessions, it was noted that at the first meeting, athlete N wrote that he had the determination to continue participating in training, but still had difficulty managing negative thoughts and felt less confident. In the second and third meetings, positive changes occurred: athletes began to feel more confident, were able to discard bad thoughts, and showed determination in facing training targets without giving up. This shows that visualization techniques and mental log journaling contribute to increasing aspects of mental toughness in athlete N.

This finding is supported by Yanti and Jannah (2017) who stated that in athlete programming, visualization is used to change negative thought patterns into positive ones. Athletes are invited to imagine difficult situations in training or matches, then mentally "destroy" the problem and replace it with a constructive perception. This visualization can increase motivation, concentration and self-confidence in facing competition. Meanwhile, Adi (2016) explained that visualization techniques are a form of mental training in the form of self-imaging and mental movement, which is useful in learning new movements, improving technique, training simulations, and supporting injury rehabilitation. The clearer and more realistic the mental picture that is formed, the greater the athlete's chances of achieving training and competition goals (Shope, 1982 in Purnama, 2013).

From the journalism side, Veriza et al. (2023) stated that journaling is a means of expressing thoughts and feelings into written form, which is useful for understanding ideas, notions and emotions more fully and purposefully. Journaling also helps shape and habituate positive behavior through consistent self-reflection (Sinaga, 2022 in Veriza et al., 2023).

Apart from that, athlete N also revealed that the performance displayed during training had improved after following the intervention. This is in line with the opinion of Cowden (2017) who states that the higher the level of mental toughness an athlete has, the greater the possibility of

showing the best performance on the field. On the other hand, low mental toughness will have a negative impact on performance in training and competition. Bisri et al. (2022) added that high mental toughness makes it easier for athletes to achieve optimal performance.

Thus, based on the implementation of the intervention during three meetings, it can be concluded that visualization techniques and mental log journaling are effective in improving important aspects of mental toughness, especially self-confidence, emotional control and self-determination in athlete N.

The increase in mental toughness in N athletes was evaluated using the Sport Mental Toughness Questionnaire (SMTQ) instrument compiled by Michael Sheard, Jim Golby, and Anna van Wersch in 2009. This instrument is in the form of a questionnaire consisting of 14 questions and is used in the form of a pre-test and post-test to measure the effectiveness of the intervention (Nissa & Soenyoto, 2021). SMTQ assesses three main aspects of mental toughness, namely self-confidence, constancy and self-control.

Each item in this questionnaire has four answer choices with the following rating scale:

- (1) not tough,
- (2) less tough,
- (3) tough,
- (4) very tough.

The total score classification to determine the level of mental toughness is as follows (Blegur, 2016 in Nissa & Soenyoto, 2021):

00.00–14.00: not tough

14.01–28.00: less tough

28.01–42.00: tough

42.01–56.00: very tough

Based on the pre-test results, athlete N obtained a score of 36, which is included in the tough category. After being given intervention in the form of visualization techniques and mental log journaling, athlete N again filled out the questionnaire in the post-test and obtained a score of 44, which shows an improvement to the very strong category.

Thus, these results indicate that the intervention provided was successful in increasing athlete N's level of mental toughness. Visualization techniques help build mental readiness and self-confidence through forming a positive self-image, while mental log journaling provides a space for reflection to understand emotional experiences and adaptive strategies during training. The scoring results on the SMTQ instrument provide quantitative evidence that the combination of these two techniques is effective in supporting an increase in athletes' mental toughness.

CONCLUSION

This study concludes that visualization and mental log journaling techniques significantly improved the subject's mental toughness, particularly in the dimensions of self-confidence and emotional control. Based on the Sport Mental Toughness Questionnaire (SMTQ), the subject's score increased from 36 (classified as 'tough') to 44 ('very tough'), indicating measurable progress. These techniques also facilitated better emotional regulation, enhanced concentration, and encouraged reflective practice. Therefore, the combination of visualization and journaling is recommended as a practical intervention to strengthen mental resilience in student athletes.

As a recommendation, further service programs are advised to develop intervention modules by adding other techniques such as mindfulness or relaxation, as well as testing this method on athletes from various sports to expand the generalization of the results. Continuous mentoring is also needed to ensure consistency in independent application of techniques. In addition, it is hoped that the involvement of coaches and families can strengthen emotional and social support for athletes in a more comprehensive mental development process.

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