

The Role of Optimism in the Emotion Regulation of Athletes with Disabilities

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Abstract Athletes with disabilities require emotional regulation in their performances. Optimism is thought to play a role in emotional regulation. This study aims to determine the contribution of optimism to the emotional regulation of athletes with disabilities. This correlational quantitative study was conducted involving 69 athletes with disabilities in Surabaya, Indonesia. Participants aged 14–57 (mean 29.9; SD 12.04) were grouped into categories of physical disability, intellectual disability, and sensory disability. The instruments used in this study were the optimistic scale and the Indonesian Emotion Regulation Questionnaires for Sport. Jeffreys's Amazing Statistics Program software was used to analyze the data using linear regression. The results showed that there was an optimistic contribution of 68.1% to emotional regulation in athletes with disabilities. Through optimism, athletes with disabilities are able to have positive responses, so emotional regulation is good. This affects the sports performance of athletes with disabilities. The implication of this research is to provide assistance so that athletes with disabilities have high optimism, good emotional regulation, and optimal sports performance.

Keywords Emotion Regulation, Athletes with Disabilities, Optimism

1. Introduction

Disability is an impairment, and activity and participation restrictions refer to the negative aspects of the interaction between an individual's health conditions and their personal factors and environment [1]. It is estimated that 15.6% of the world's population, or seventy million people, are disabled [2]. The World Health Organization [2] also stated that disability is more prevalent in women, older people, and low-income countries.

Sport is an activity involving physical exertion, skill, and competition in which an individual with disabilities can participate in order to attain achievements. A disabled athlete is someone who has physical, mental, sensory, and/or intellectual limitations but consistently competes and excels in sports [3]. Athletes with disabilities may also face specific stressors (e.g., a lack of disability-specific coaching and inaccessible environments) and similar stressors to able-bodied athletes (e.g., leadership and team issues) as a result of subjective inequalities in sports organizations [4].

The Paralympics are a nationally and internationally legalized sport event in which athletes with disabilities can participate. Similar to the Olympics, there is intense pressure to win at the Paralympics. With the Paralympics

becoming more competitive, there is greater pressure on athletes with disabilities to have effective mental skills. Kirkby [5] stated that disabled athletes participate in sports in order to gain psychological advantages, such as developing self-confidence, regaining self-esteem, and achieving social benefits. Previous research found that top able-bodied and disabled athletes appear to have similar psychological skills (i.e., high self-esteem, sports competence, confidence, tactical knowledge, decision-making, and resilience), implying that athletes with and without disabilities developed similar psychological characteristics to achieve high levels of success [6].

In their lives, many athletes are faced with various stressful activities. Due to competitive and challenging activities, athletes are prone to negative emotions, fear of failure, dysfunctional thinking, and competitive anxiety [7]. Emotion regulation is one of the many important psychological factors that may influence the performance of athletes with disabilities in achieving their goals [8].

Individuals' inability to regulate their emotions optimally is linked to high levels of stress and the possibility of psychopathological symptoms (e.g., anxiety disorders, obsessive-compulsive disorders, and aggressive behavior) as a result of the demands of these activities, as opposed to having good psychological functioning. On the contrary, the ability to regulate one's own emotions is linked to emotional well-being. Therefore, athletes may need to be taught to apply psychological strategies to support their achievement. Research by Dieffenbach and Statler [9] shows that high-level paralympic athletes employ psychological strategies to regulate their emotions and psychological responses.

Optimism influences one of the skills of emotional regulation. Athletes who have high levels of optimism tend to respond adaptively to failure, adversity [10], or stressful situations. Optimism is defined as an individual's expectation that he will receive positive results in general [10]. That being said, optimistic athletes are more likely to apply adaptive strategies to manage emotions [11] (e.g., perceived disappointments). Nes and Segerstrom [12] showed in their research that optimism is positively related to coping strategies that can help individuals reduce or manage stressors and the disturbing emotions that accompany these stressors.

Optimism is influenced by situational or environmental factors [13]. However, it can help change an individual's perspective on difficult situations or events [13]. Environmental and situational factors for athletes with disabilities in Indonesia, one of which is reflected in the views that Indonesian people have towards disabled people. Data shows that the majority of people think that people with disabilities are people who do not have perfection, as much as 37.35 percent, and as many as 24.24 percent think they are people who deserve pity [14]. The social stigma attached to athletes with disabilities can be an encouraging challenge for Indonesian athletes with disabilities. This is one of the reasons that being a disabled athlete in Indonesia

is not an easy thing.

Previous research on athletes with disabilities included an examination of the optimism of track and field athletes with disabilities [15], the activation of emotional regulation of sports achievements, and the Covid-19 pandemic's consequences on the preparation of athletes with disabilities for the championship of 7-a-side football [16]. The effect of optimism on emotional regulation has not been widely studied. Therefore, this research is expected to help determine the effect of optimism on the emotional regulation of athletes with disabilities in Indonesia, with the hypothesis proposed that optimism has an effect on the emotional regulation of athletes with disabilities in Indonesia.

2. Materials and Methods

2.1. General Background

The quantitative method is used in this type of research. The quantitative method is a research method that is carried out by collecting research data and analyzing it in the form of numbers that can only be applied to research and that describes something to reveal correlations between research variables or to carry out dissimilarity tests between two or more groups of objects to be studied [17].

Before conducting the research, the researcher carried out the preparatory stage, which included conducting a preliminary study to identify problems based on the researcher's track record, checking in the field, and searching the literature. Then, compile research proposals and schedules, compile research instruments, and conduct the final test of the instrument.

2.2. Participants

This research involved 69 athletes with disabilities (male = 56 and female = 13) from the National Paralympic Committee Indonesia as research participants. Participants were in the age range of 14–57 years (mean 29.9; SD 12.04). Athletes with disabilities were grouped into three categories: physical disabilities, intellectual disabilities, and sensory disabilities. In this research, subjects came from ten types of sports, namely athletics, boccia, badminton, chess, blind judo, shooting, archery, swimming, cerebral palsy soccer, and table tennis.

2.3. Instruments and Procedures

The instruments used in this study were the Optimism Scale and the Indonesian Emotion Regulation Questionnaire for Sport (IERQ4S) [18]. Each instrument consists of 10 items with four alternative answer choices.

The results of the construct validity analysis for the Optimism Scale are in the range 0.408-0.490, with a reliability coefficient of 0.671. The results of the IERQ4S

construct validity were 0.490-0.562, with a correlation coefficient of 0.854.

Based on the number of items and answer choices, the instruments were grouped into 3 levels, namely high, medium, and low. High level is a score of 30 or more; medium level is a score of 20–29; and low level is a score of 10–19.

2.4. Data Analysis

The data analysis technique used in this study was linear regression. The data analysis tool was performed using the Jeffreys' Amazing Statistics Program (JASP) version 0.14.1.0 application.

3. Results

A total of 69 athletes with disabilities were involved in

this study. The description of the research subject is as follows:

The data in Table 1 shows that the majority of research participants were male; according to the types of sports, they were in track and field. Meanwhile, based on the category of disability, the majority are physically disabled.

The description of the research data in Table 2 shows the score of optimism and emotion regulation. It shows that the majority of research subjects are at a moderate level of optimism (73.9%) and emotion regulation (71%). The low level between the emotion regulation, which scored 27.5%, and the optimism, which scored 5.8%, shows that there is a significant difference between them. At the high level, emotion regulation scored significantly lower than optimism, with scores of 20.3% and 1.45%, respectively.

The result of statistical calculations through the calculation of statistical data using the JASP application version 0.14.1.0 for Windows is as follows:

Table 1. Demographics Data

Aspect	Characteristic	Amount
Sex	Male	56
	Female	13
Age	14–57 years old	69
Categories of disabilities	Physical	38
	Intellectual	5
	Sensory	26
Types of sport	Archery	3
	Badminton	9
	Blind Judo	4
	Boccia	3
	Chess	10
	CP Soccer	9
	Shooting	3
	Swimming	8
	Table Tennis	8
	Track & Field	12

Table 2. Levels of Optimism and Emotion Regulation

Score	Levels	Frequency of Optimism	Percentages	Frequency of Emotion Regulation	Percentages
10–19	Low	4	5.8	19	27.5
20–29	Moderate	51	73.9	49	71
30–40	High	14	20.3	1	1.45

Table 3. Statistical Results

Model Summary – Optimism ER				
Model	R	R ²	Adjusted R ²	RMSE
H ₀	0.000	0.000	0.000	3.276
H ₁	0.825	0.681	0.676	1865

The correlation coefficient value of 0.825 as a result of the statistical tests indicates that there is a relationship between optimism and emotion regulation in athletes with disabilities. The value of R² is 0.681, meaning that optimism contributes 68.1 percent to emotion regulation.

Another result of this study is a test of differences in emotion regulation and optimism based on gender, as follows:

Table 4. Emotion Regulation and Optimism Based on Gender

Independent Samples T-Test			
	t	df	p
ER	0.128	67	0.898
OP	1.937	67	0.057

Note. Student's t-test.

Based on Table 4, regarding the differences in emotional regulation between male and female athletes with disabilities, statistically, it showed data $t = 0.128$ with $p = 0.898$ (> 0.05). Meaning that there are no significant differences in emotional regulation scores between male and female athletes with disabilities. Optimism data showed a value of $t = 1.937$ with a value of $p = 0.057$ (> 0.050). This data indicated that there are no significant differences in optimism scores between male and female disabled athletes.

This research also studied the differences in emotion regulation and optimism based on the types of sport, with the results as follows:

Table 5. Differences in Emotion Regulation Based on the Types of Sport

ANOVA - ER					
Cases	Sum of Squares	df	Mean Square	F	p
Types of Sport	88.223	9	9.803	0.901	0.530
Residuals	641.719	59	10.877		

Note. Type III Sum of Squares

According to Table 5 above, based on the analysis of variance results, the F value was 0,901; $p = 0,530$ ($> 0,05$), indicating that the emotion regulation scores between the types of sports do not differ significantly.

Table 6. Differences in Optimism Based on Types of Sport

ANOVA - OPTIMISM					
Cases	Sum of Squares	df	Mean Square	F	p
Types of Sport	153.999	9	17.111	1.089	0.385
Residuals	927.247	59	15.716		

Note. Type III Sum of Squares

According to Table 6 above, based on the analysis of variance results, the F value was 1,089; $p = 0,385$ ($> 0,05$), indicating that the optimism scores between the types of sports do not differ significantly.

4. Discussion

This research suggests that optimism has a considerable contribution to emotion regulation at 67.6%. Any athlete with disabilities is expected to accomplish some feats during their career. To achieve this success, athletes can rely on emotion regulation that is supported by optimism. An athlete in the study by Ferguson et al. [19] stated that having control over the negative and positive emotions they experience is important for athletes to flourish. Optimism is found to be positively associated with a sense of control [20]. This statement implies that optimists also have control over their feelings or emotions. This supports the findings of this study that optimism contributed to positive and negative emotional control in athletes with disabilities.

This research revealed that there are no significant gender differences in emotion regulation and optimism between female and male athletes with disabilities. Regarding emotion regulation, this finding is in line with previous research [21]. However, previous research also reported that there were gender differences in emotion regulation [22]. This study's discovery of no significant gender differences in optimism is also supported by previous research [23]. The inconsistency of gender differences in optimism could be attributed to the demographic characteristics of the sample population [23] and athletes' environments. Whereas the inconsistent results of gender differences in emotion regulation may be the product of disparities in cognitive processes (i.e., emotional regulation and reactivity) [24] and expressiveness [25] of the selected female and male subjects.

This research discovered no differences in emotion regulation across types of sports. However, previous research stated that there were differences in emotion regulation between individual and collective sports athletes [26]. This discrepancy could be linked to the fact that disabled athletes from individual sports made up the majority of the sample population in this study.

Optimism could support athletes' ability to control their emotions—especially in stressful situations. It can be argued that optimism can help disabled athletes regulate their emotions by controlling their thoughts and perceived emotional experiences through the use of problem-focused and/or emotion-focused coping strategy. This statement is supported by Thompson and Gaudreau [27], who in their research stated that an optimist uses certain strategies to regulate emotions that can help them overcome difficult situations. These strategies are mental imagination, relaxation, relaxation-autogenic, expressive writing, meditation-autogenic, mind control, logical analysis, and judgment [27]. In other words, optimism influences the emotion regulation of athletes with disabilities.

An optimist is associated with better mood and emotional adaptation and is not associated with mental health problems due to stress [28]. This tendency is linked to a positive attitude that is less reactive to life's stressors, causing people to perceive life as less stressful. It lends credence to this research findings that optimism can significantly aid disabled athletes in emotional regulation.

Emotion regulation is defined as a process that allows individuals to modify emotions or situations that generate these emotions so that they can respond accordingly to the demands of their environment [29]. Emotion regulation can support hedonic goals or motivation to feel more positive and encourage individual's instrumental motivation, for example, by modifying emotions and preventing the emergence of negative emotions so that they support long-term goals [30]. This means optimism that makes individuals able to adapt emotionally well can support the implementation of emotion regulation, namely by supporting emotional management which can then produce an adaptive response. Gross stated in their theory that by regulating their emotions, individuals can maintain, increase, or reduce the emotions they experience.

5. Conclusions

In conclusion, this research confirmed the contribution of optimism to emotion regulation in athletes with disabilities. Furthermore, the considerable relationship between optimism and emotion regulation suggests that optimism can help disabled athletes better regulate their emotions. It is suggested to further investigate the other variables that have influenced emotion regulation in athletes with disabilities.

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