

Mindfulness and Coping Skills as Predictors of Competitive Anxiety Amongst Athletes in Indonesia

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Competitive anxiety is one of the psychological factors which greatly affect athletes' performances. Competitive anxiety is divided into somatic anxiety and cognitive anxiety. This study was conducted to look at mindfulness and coping skills as predictors of competitive anxiety. Through purposive sampling techniques, some ($N = 159$) senior athletes, representatives of various sports from various provinces in Indonesia, with an age range of 18-40 years were included in this study. This non-experimental research method design used three questionnaires, consisting of AAQ-II (mindfulness), ACSI (coping skills), and CSAI-2R (competitive anxiety) as measurement tools. Statistical analysis, using multiple regression, showed that mindfulness and coping skills simultaneously have a linear relationship to competitive anxiety, and significantly predict a competitive anxiety level of 29%. This means that mindfulness and coping skills can decrease competitive anxiety in athletes. Further analysis found that mindfulness plays a greater role in reducing competitive anxiety than coping skills.

Keywords: mindfulness, coping skills, competitive anxiety, athletes

Kecemasan kompetisi merupakan salah satu faktor psikologis yang amat memengaruhi kinerja (*performance*) atlet. Kecemasan kompetisi terbagi atas kecemasan somatik dan kecemasan kognitif. Studi ini dilakukan untuk melihat kehati-hatian (*mindfulness*) dan keterampilan koping (*coping skill*) sebagai prediktor kecemasan kompetisi. Melalui teknik purposive sampling sejumlah atlet senior ($N = 159$), perwakilan berbagai jenis olahraga dari beberapa provinsi di Indonesia, berusia antara 18-40 tahun, berpartisipasi dalam studi ini. Metode penelitian dengan desain non-eksperimental ini menggunakan tiga kuesioner, terdiri atas AAQ-II (kehati-hatian), ACSI (keterampilan koping), dan CSAI-2R (kecemasan kompetisi) sebagai alat ukur. Analisis statistik, menggunakan regresi multipel, menunjukkan bahwa kehati-hatian dan keterampilan koping secara bersama-sama memiliki hubungan linear dengan kecemasan kompetisi, dan secara bermakna memprediksi aras kecemasan kompetisi sebesar 29%. Ini berarti bahwa kehati-hatian dan keterampilan koping dapat menurunkan kecemasan kompetisi para atlet. Analisis selanjutnya menemukan bahwa kehati-hatian memegang peran lebih besar dalam menurunkan kecemasan kompetisi daripada keterampilan koping.

Kata kunci: kehati-hatian, keterampilan koping, kecemasan kompetisi, atlet

Sports have a wide effect on many aspects in the life of a society. Coalter (2005) stated that playing sport has several effects, some of which are improving physical health, improving mental health and wellbeing; improving academic activity in students; improving social ability and active participation in society; reducing criminal behavior and lowering antisocial behavior; and improving economic conditions. The positive effects of sports have persuaded institutions to hold sports events, to facilitate competitive situa-

tions and stimulate the community to be actively involved in sports.

The main goal of every sports event is to achieve an optimal competitive performance from the athletes, in their efforts to gain victory. Gunarsa (2004) suggested that athletes' successes in a competition are determined by three factors, the physical factor, the technical factor, based on the sport, and the psychological factor. According to Grossbard, Smith, Smoll, and Cumming (2009), one of the most researched psychological aspects in supporting athletes' optimal performance is that of anxiety when facing competition (Bali, 2015; Dias, Cruz, & Fonseca, 2014; Neil, Wilson, Mellalieu,

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Hanton, & Taylor, 2012). Woodman, Jones, and Gould (2009) also suggested that the factor of anxiety is much more researched in sports, compared to other emotional problems and psychological factors. Other research is still today being developed, on competitive anxiety which may influence competitive performances.

One of the pieces of research done by Bali (2015) found that the psychological conditions which greatly influence competitive performance are anxiety, and stress in facing competition. In facing a competitive match, athletes are confronted with several situations which may cause stress, be it in the form of internal (wanting to be perfect, afraid to make a mistake), or external factors (pressure from the coach and team to win the match, not wanting to disappoint others). Mellalieu, Hanton, and Fletcher (2006) suggested that there are multiple factors related to competitive anxiety: competitive stress, competitive stressor, competitive strain, and competitive anxiety.

Competitive stress is the interaction between the individual and external demands, directly related to competitive performance. Competitive stressors are the external demands directly related to competitive performance, whilst competitive strain is the negative response to competitive stressors by an individual, manifested in psychological, physical, and behavioral forms. Competitive anxiety is the specific negative emotion of an individual as a response to competitive stressors. Athletes' abilities in dealing with stressful situations may help them produce their best performance, and not easily to be influenced by existing stressors; however, difficulty in dealing with a stressful situation may create a negative emotional response, in the form of competitive anxiety, which may be an obstacle to producing an optimal competitive performance.

Anxiety is a disruption in thoughts (unrealistic thoughts, unpleasant thoughts) and emotional reactions (passion, tension), when faced with competitive situations appearing difficult. Although there have been many pieces of research performed, pertaining to competitive anxiety and competitive performance, there are still differences in the views of the researchers concerning whether the condition of anxiety is seen as a supportive factor or a hindrance, in producing optimal competitive performances. To explain the effects of competitive anxiety on competitive performance, the multidimensional anxiety theory approach, proposed by Martens, Vealey, and Burton (1990) suggested that competitive anxiety can be divided into cognitive anxiety, which is debilitating (performance-inhibiting), and somatic anxiety, which can be faci-

litative (performance-inducing). Endler, Parker, Bagby, and Cox (1991) defined cognitive anxiety as a mental component of anxiety, caused by several factors, such as worry over a negative judgment of the surroundings, fear of failure, and loss of self-esteem. Meanwhile, somatic anxiety is the physical component of anxiety and is a reflection of the perception of physiological response, in such forms as increases in heart rate, respiration, and muscle tension. Some other researchers have suggested that the symptoms of anxiety may either help or hinder athletes' competitive performances; influenced by the athlete's interpretation of the situation (Hanton, Evans, & Neil, 2003; Hanton, Neil, Mellalieu, & Fletcher, 2008; Perry & Williams, 1998).

Cognitive anxiety is influenced by environmental factors, which may affect athletes' hopes of achieving success, including their perceptions of their own ability and of that of the opponents. Jones and Uphill (1990) found that cognitive anxiety is influenced by an athlete's perception of his/her preparedness when facing competition, his/her earlier competitive experiences, and how he/she reacts to the goal (if the athlete perceives that the goal is difficult to achieve or he/she is unable to achieve that goal). Owing to the close links between cognitive anxiety and the consequences of failure, cognitive anxiety has a linear negative relationship to competitive performance (Neil et al., 2012). In other words, higher cognitive anxiety may well hinder optimal performance.

Somatic anxiety is not evaluative to the situation being faced by an athlete; it is temporary and has only a short duration, being influenced by trait anxiety, causing it to rise when the athlete is facing a competitive situation. The multidimensional anxiety theory sees somatic anxiety as having a Kuznets curve relationship with competitive performance, where somatic anxiety, related to physiological symptoms, may be facilitative when the athlete is able to regulate rising symptoms, and see them as a helpful condition in preparing to face a competitive situation.

Furthermore, research concerning the correlation between somatic anxiety, cognitive anxiety, and competitive performance, was done by Neil et al. (2012). They found that levels of somatic anxiety have a reciprocal relationship with athletes' interpretations of their abilities in answer to stressful situations. Higher somatic anxiety levels will lower interpretation ability in dealing with stressful situations, where an athlete's cognitive anxiety will rise (depreciating his/her own ability, causing lowered confidence) which consequently lowers competitive performance. The opposite also applies, where good interpretation ability regard-

ing stressful situations (low cognitive anxiety) may help athletes in dealing with somatic anxiety, to achieve optimal competitive performances.

Based on the earlier explanation, a conclusion may be reached that cognitive anxiety has a more negative linear correlation to optimal competitive performance, and that low cognitive anxiety may help athletes in regulating their somatic anxiety in an optimal fashion. Therefore, it is important to know the factors which may lower cognitive anxiety, especially in order to achieve optimal performances.

One of the approaches most used to help athletes improve their cognitive abilities in dealing with emotional problems arising when facing competition is that of Psychological Skills Training (PST). PST is a technique based on the behavior and cognition modification approach, and is used to improve athletes' abilities in managing their thoughts, emotions, and behaviors (Weinberg & Gould, 2015), lowering negative thoughts, improving confidence, and lowering the impulses brought about by negative emotions, such as anxiety (Hardy, Jones, & Gould, 1996). In other words, PST is performed to improve athletes' psychological abilities when facing competitive situations. An indicator of those psychological abilities was formulated by Smith and Schutz (1995) in seven the dimensions of coping skills, measured by a tool he developed. These dimensions are coping with adversity, 'coachability', concentration, confidence and achievement motivation, goal setting and mental preparation, peaking under pressure, and freedom from worry. Smith and Schutz, suggested that athletes' coping skills are related to their mental ability in dealing with competitive situations, in which they form an important defining factor regarding sports performance. Based on earlier research, he saw that a specific mental ability may help an athlete in dealing with competitive situations and improving his/her competitive performance. The result of said research showed that coping skills are related to anxiety, measured using the Sports Anxiety Scale (SAS). Further research by Khodayari, Saiiari, and Dehghani (2011) into coping skills with athletes' anxieties, shows that such skills have a negative linear correlation regarding an athlete's anxiety, where better coping skills lower this anxiety. The result also shows that better coping skills will raise an athlete's confidence.

However, some other research did not find a consistent correlation between the lowering of negative emotions and an athlete's competitive performance, using the PST technique (Gross et al., 2016). This may be because, although PST athletes are more focused

on efforts to tackle their negative thoughts and emotions, such efforts drain their energy and lower their focus on the competition. The seven coping skills are those needing training and habituation in each dimension, so when faced with situational competitive anxiety, it is difficult for athletes to apply all the seven dimensions of coping skills effectively.

Gross et al. (2016) then compared PST with another approach, the Mindfulness-Acceptance-Commitment Approach (MAC), in achieving optimal competitive performance. The results of the research shows that MAC is more effective in lowering anxiety and psychological distress, as well as improving psychological flexibility, which supports achieving optimal competitive performances. This is because, in its technique, MAC prioritizes the athlete's alertness to the situation being faced, and acceptance of the existing situation, with full awareness but without cognitive judgment. This helps the athlete to be more focused on the task and competition being faced, without trying to tackle his/her negative thoughts and emotions.

MAC is a technique developed by Gardner and Moore (2004), adapted from Acceptance and Commitment Therapy, to be applied in a sports setting. Although not much research on mindfulness in the sports setting has been done, some research developed today have found that mindfulness is also related to the lowering of an athlete's competitive anxiety. The results of the research done by Gardner and Moore shows that, although the mindfulness therapy given is not especially aimed at lowering anxiety, an athlete's higher ability to be more focused in facing a competitive situation lowers his/her anxiety levels. Other related research by Baltzell, Caraballo, Chipman, and Hayden (2014) found that athletes' mindfulness skills are related to their abilities to resolve negative emotions and improve focus when facing competition, which lowers their competitive anxiety levels.

Mindfulness is an ability to stay focused on the situation being faced, with full awareness; not be caught by disadvantageous thoughts, and to be flexible in response to changes of situations (Harris, 2009). Bernier, Thienot, Codron, and Fournier (2009) suggested that mindfulness is defined as someone's ability to focus on current experiences, without making any judgment (Zinn, 2010). Cottraux (2007) defines mindfulness as a mental condition which is the result of someone's ability to focus his/her attention toward his/her current experience in its sensory, mental, cognitive, and emotional aspects, without trying to make any judgment. Higher mindfulness skill levels in an athlete will help him/her to stay focused on competitive situations, with-

out being easily influenced by negative thoughts about existing pressure. These skills will lower anxiety caused by negative interpretations about the situation being faced.

Based on the explanations above, it may be concluded that anxiety which rises in an athlete is his/her interpretation process when facing a competitive situation, full of external and internal demands. Bad interpretation of stressful situations will raise the intensity of anxiety in athletes. Their interpretation ability when facing competitive situations can be influenced by their mindfulness and coping skills in interpreting each pressure faced during competitions. Therefore, in anticipating competitive anxiety, which can halt optimal competitive performance, factors which may influence athletes must be considered, in this case being mindfulness and coping skills.

Based on the literature obtained by this researcher, there has been enough research done previously to learn about the factors which may influence an athletes' competitive anxiety. However, not enough research, has been done, especially in Indonesia, to show the factors which may influence competitive anxiety, particularly in elite athletes (at least at the provincial level). There is also minimal research on the correlation between mindfulness and improving competitive performance in sports, especially in looking at the effect on an athlete's competitive anxiety. Mindfulness, as one of the variables in this study, has been researched widely before, in the context of everyday life but in the sports context, mindfulness is one of the constructs which has not much been researched. What is more, this researcher has not found any previous research on mindfulness in the sports context, in Indonesia. This is what drove this researcher to undertake this research, as initial research which can become the basis of further work on the application of mindfulness therapy as an intervention to tackle competitive anxiety, and help athletes enhance their performance in the sports setting.

The aim of this research is to ascertain whether mindfulness and coping skills can be predictors of cognitive anxiety and somatic anxiety in athletes, and to discover which variable between mindfulness and coping skills has the greater role in lowering cognitive anxiety and somatic anxiety in Indonesian athletes.

Method

The research design used was a non-experimental one, to view the correlation between variables in the

research, with no intervention or control being undertaken on existing variables (Kerlinger & Lee, 2000). The researcher measured the variables, and saw the influence of the independent variable upon the dependent variable of this research.

The participants in this study were 159 senior athletes from various sports with the minimal competition level being provincial. The participants are representatives of various provinces in Indonesia. The sample consisted of 105 male athletes and 54 female athletes in the age range 18 to 40 years. The levels of participation by the subjects in the sample were 13 at the provincial level, 110 at the national level, and 36 at the international level. The types of sports were shooting (76 athletes), volleyball (23 athletes), athletics (18 athletes), martial arts (19 athletes), basketball (ten athletes), soccer (six athletes), tennis (four athletes), and other sports (three athletes).

This sample was obtained by using the purposive sampling technique, where the researcher limited the athletes' characteristics to those set for research purposes, i.e. senior athletes, experienced in official sports competitions (at least at regional/provincial levels), and ongoing active participation in the particular sport. The researcher distributed a questionnaire, utilizing an online network, through the coordinators or coaches of related sports, said questionnaires being forwarded to the relevant athletes.

The study was done in four steps, these being research question development, preparation, data collection, and results writing. The research questions development step was done by exploring the phenomena experienced by the athletes, utilizing interview and discussion methods, then a literature study the existing research into the phenomena. The preparation step was performed to determine a suitable research sample, commensurate with the research purpose. The sampling technique was begun with a search for organizations and/or sports clubs which have actively participated in competitions at least the provincial level. The researcher then obtained the necessary approval from relevant organizations, and coordinated with sports coaches (so as not to disturb training programmes).

The data collection step was implemented after gaining the necessary approval from the relevant organizations and begun by asking for the athletes' consent to becoming participants, this achieved by the filling in of the informed consent forms. The measuring tools used were AAQ-II, ACSI, and CSAI-2R, which had been adapted into the Indonesian language by the processes of back translation, expert judgment, and a comprehensibility test.

Research Tools

The measuring tool AAQ-II was used, to ascertain the athletes' mindfulness skills. AAQ-II is a measuring tool adapted from Bond et al. (2011), and used to measure psychological inflexibility, which has an Alpha Cronbach reliability coefficient value of 0.918 and consists of seven items, using the 7-point Likert scale. Lower AAQ-II scores indicate the higher flexibility of the athletes' psychological abilities, in other words, the higher mindfulness skills of the athletes, while higher AAQ-II scores show psychological inflexibility (athletes' lower mindfulness levels).

The ACSI is a measuring tool used to gauge the athletes' coping skills, and is adapted from Smith and Schutz (1995) and has an Alpha Cronbach reliability coefficient value of .803. The ACSI measuring tool consists of 28 items, using the four-point Likert scale, and gauges seven dimensions, namely Coping with Adversity, 'Coachability', Concentration, Confidence and Achievement Motivation, Goal Setting and Mental Preparation, Peaking under Pressure, and Freedom from Worry. These seven dimensions are unidimensional, therefore the scores of all dimensions are used to achieve a total, to determine the athlete's coping skills. After an adaptation process concerning 60 samples, there were six items which did not fulfill the required reliability value, therefore only 22 items were used. Higher ACSI scores showed better coping skills by the athletes in facing training and competitive situations.

Meanwhile, CSAI-2R is adapted from Cox, Martens, and Russell (2003), to measure competitive anxiety. This constitutes three dimensions (somatic anxiety, cognitive anxiety, and confidence) and is multidimensional, where every dimension is measured separately. In this study, the dimensions used were those of somatic anxiety and cognitive anxiety. Higher scores show higher athlete anxiety (both somatic and cognitive). The measuring tool CSAI-2R consists of 17 items (seven items of the somatic anxiety dimension, five items of the cognitive dimension, and five items of the confidence dimension) and has an Alpha Cronbach reliability coefficient values of .801 (somatic anxiety), .826 (cognitive anxiety), and .888 (confidence).

The results writing step was undertaken after the analysis process regarding qualitative data. Data analysis was performed by using the multiple regression method, by looking at the correlation between mindfulness and coping skills variables, as predictors of somatic and cognitive anxieties, these being the dependent variables. The data analysis process was undertaken using the IBM SPSS 16.0 program.

Results

The result of the statistic calculation is shown in following the analysis.

Table 1 shows the descriptive statistics of the studied variables, where mindfulness measure by psychological inflexibility (AAQ-II) and coping skills (ACSI) as a predicting variable as well as competitive anxiety as criterion variable. Data shown is the mean standard deviation, and the score range for each variable.

Table 2 shows the correlation between variables, where it may be seen that mindfulness has a highly significant correlation with competitive anxiety (.535) Meanwhile, coping skills have a negative linear correlation with competitive anxiety (-.283).

Criterion Variable: Competitive Anxiety

As revealed on Table 3, the value of the determination coefficient (R^2) of the two predictor variables, measured simultaneously toward the criterion variable, is .298 for competitive anxiety. This shows that the two predictor variables contribute to predicting competitive anxiety for 29.8%. Meanwhile, if R^2 is measured separately, both predictor variables show a lower score than that when compared to when measured simultaneously. In other words, the two predictor variables can strengthen each other's influences on the criterion variable.

Table 1
Research Data Descriptive Statistics

Statistic	AAQ-II	ACSI	Competitive Anxiety
<i>N</i>	159	159	159
<i>Mean</i>	17.4340	46.9874	19.4277
<i>Std. Deviation</i>	7.94086	8.88534	6.07595
<i>Minimum</i>	7.00	24.00	41.00
<i>Maximum</i>	41.00	65.00	12.00

Table 2
Inter-variable Correlation

Variables	1	2	3
1. Mindfulness (AAQ-II)	1		
2. Coping Skills (ACSI)	-.336**	1	
3. Competitive Anxiety	.535**	-.283**	1

Note. ** $p < .01$.

Table 3
Contribution of Mindfulness (AAQ) and Coping Skills (ACSI) Toward Competitive Anxiety

Model	Determination Coefficient (R^2)	Non-standardized Coefficients		Standardized Coefficients	T	Sig.
		B	$Std. Error$	β		
(Constant)		16.554	2.787		5.940	.000**
Mindfulness (AAQ-II)	.286	0.379	0.054	.496	6.961	.000**
Coping Skills (ACSI)	.080	- 0.080	0.049	- .116	- 1.634	.104
AAQ-II & ACSI	.298					.000**

To see whether the predictor variables can be predictors of the criterion variable, a multi-collinearity test is needed. One of the ways to determine multi-collinearity is to look at the default error value and beta coefficient of partial regression. In Table 3, it can be seen that the default error values of the variables mindfulness and coping skills are below 1, and the values of the beta coefficient of both variables are also below 1. Based on this, it may be concluded that low default error values and multi-collinearity are not detected (both predictor variables are not inter-correlated), so the next regression test can be performed.

Table 3 shows the results of multiple linear regression, as well as the results of predictor variables analysis, independently using the t-test. Based on the result shown on the tables, it is apparent that the mindfulness variable measured by psychological inflexibility (AAQ-II) has a positive linear correlation with competitive anxiety, where higher psychological inflexibility scores mean higher anxiety levels in athletes. This means that lower mindfulness in athletes in undertaking activities gives rise to competitive anxiety. Meanwhile, the coping skills variable has a negative linear correlation, which means higher coping skills lead to lower competitive anxiety in athletes.

Table 3 shows the coefficients of the mindfulness and coping skills variables, as predictors of competitive anxiety. Mindfulness has a highly significant effect on competitive anxiety ($\beta = .496^{**}$, $p < .001$) t [sic] have an effect on competitive anxiety ($\beta = -.116^*$). Based on that calculation, it can be concluded that the mindfulness and coping skills variables can be predictors of competitive anxiety by as much as 29.8%. Meanwhile, based on the comparative analysis between the two predicting variables, using the independent t-test, mindfulness has more of a role in determining competitive anxiety, compared to coping skills, with a significance value of below .01, while coping skills does not have an effect on competitive anxiety. Furthermore, based on the standardized coefficient score (β standardized) for each dependent variable, it seems

that mindfulness makes a bigger contribution to competitive anxiety, compared to that of coping skills. In other words, it can be concluded that the mindfulness variable can better predict competitive anxiety, both cognitively and somatically, than can the coping skills variable.

Discussion

In line with the research aim, and based on the calculation of multiple regression statistical analysis, mindfulness and coping skills simultaneously can be predictors of an athlete's competitive anxiety, both cognitive and somatic. This result is in agreement with some earlier research indicating that mindfulness can lower an athlete's anxiety before a competition (Baltzell et al., 2014; Gardner & Moore, 2004; Moghadam, Sayadi, Samimifar, & Moharer, 2013; Petrillo, Kaufman, Glass, & Arnkoff, 2009). The results of some other research, which studied mindfulness intervention on anxiety in general, show that mindfulness can lower anxiety levels (Forman, Herbert, Moitra, Yeomans, & Geller, 2007). Additionally, an athlete's coping skills, summarized in some mental coping components, can help him/her in facing competitive situations, full of pressure, and lower his/her competitive anxiety (Khodayari et al., 2011).

An athlete's mindfulness skills will allow him/her not to dwell on negative thoughts which may arise in facing competitive situations, to minimize negative thoughts causing cognitive anxiety. This is because the athlete is more focused on the task and situation faced, without trying to make any judgment or fight negative thoughts which might arise. Also, an athlete's coping skills may also help him/her to develop alternative problem-solving skills, which help eliminate negative thoughts causing cognitive anxiety.

The results of data analysis show that the contribution value of the mindfulness and coping skills variables can predict competitive anxiety for 29.8%. Meanwhile, other variables not studied in this research

contribute as much as 70.2% to competitive anxiety. Based on earlier literature and research, there are some factors which may influence competitive anxiety, trait anxiety, positive and negative effects, confidence, extraversion, tenacity, gender, skill levels, competitive experience, and type of sport (Cerin, 2004). Even so, a contribution of as much as 24.1% and 27.7% can be read as being significant enough in predicting an athlete's competitive anxiety.

Based on further analysis, it was found that mindfulness can be more of a predictor of competitive anxiety than coping skills. It was even found that coping skills do not have any effect on competitive anxiety. Based on the definition by Martens et al. (1990), competitive anxiety is divided into cognitive and somatic. Somatic anxiety is the perception of physiological symptoms arising autonomically, marked by a fast heart rate, an uncomfortable feeling in the stomach, and bodily trembling. These physiological reactions arise automatically, based on the perception of the situation being faced. High somatic anxiety does not directly correlate with bad coping skills, because somatic anxiety is physiological in nature and arises without any cognitive judging process related to the situation. Additionally, somatic anxiety can be facilitative in nature (helping in creating better competitive performance), depending on how the athlete judges the physiological reactions experienced (Parnabas, V. A., Mahamood, & Parnabas, J., 2013). Meanwhile, coping skills are more about the athlete's mental skills in cognitively anticipating the existing situation, so that, in facing more situational difficulties, coping skills do not have a significant influence.

On the other hand, the results showing how mindfulness is more significant in influencing competitive anxiety is in line with the study by Baltzel et al. (2014), which found that mindfulness improves focus on competition, lowers distraction during the match, and is related to controlling of in-game negative emotions (being calmer, more able to handle difficulties, more able to manage negative emotions). With mindfulness, an athlete can better accept the situation being faced and is not easily influenced by the competitive situation, improving his/her ability to respond more wisely.

Facing competition, an athlete will often judge competitive situations as difficult, which will give rise to negative emotions in him/herself and create stress related to the demand to win and perform well (Bali, 2015). This excessive worry can cause anxiety, both somatically and cognitively. Problems in achieving competitive performance may arise when an

athlete focuses his/her attention too much on areas not related to the task/competition (Gardner & Moore, 2004). When cognitive anxiety arises, and an athlete is too focused on thoughts outside of the competition, problems will arise in achieving optimal performance. Gardner and Moore (2007) suggested that task-oriented attention is needed to achieve ideal performance, rather than being too focused on the athlete's own thoughts and emotions. To display optimal competitive performance, an athlete must minimize self-judgment, attention to external or internal threats, and focus on in-game consequences. It is therefore more important for an athlete to be more focused on the job than to be focused his/her own self.

Mindfulness is the ability to do something without judging the situation, to focus on the task being done, and to accept the conditions as they are. Focus on the current situation, as the main purpose of mindfulness, does not prioritize focus on the self or the cognitive activities relating to events in the past or the future, but focuses the attention more on the current performance and improving the actor's flexibility (Gardner & Moore, 2004). With the improvement of mindfulness skills, negative thoughts will also be reduced, and it can also minimize negative thoughts, arising because of the situation. This, of course, will lower anxiety within the athlete (both somatic and cognitive). An athlete will accept him/herself as he/she is, not be worried about losing because he/she is more focused on what needs to be done to bring forward better competitive performance (he/she can better think about planned strategies and have options to overcome difficulties). In line with the results of the research done by Petrillo et al. (2009), on runners, improvement in mindfulness makes an athlete more able to accept experiences causing anxiety, and does not raise worries which distract from competitive performance. A good athlete is one who is not easily distracted by his/her cognition, such as excessive worry, and who does not always think about negative events which might happen during the match, because he/she is fully focusing his/her attention on the current task/competition (mindfulness).

Limitations

Some limitations to the research are the lack of specifications of the sports, because some of the respondents are athletes in both group and individual sports, thus the absence of depiction of the differences in the competitive anxiety felt in each sport. This aside, the competitive anxiety data collection

was done when the athletes were facing a competitive simulation for the purpose of team selection. Although the selection situation was a stressor for the athletes, there was the possibility that they might experience higher anxiety when facing a real competition.

Conclusion

Based on earlier discussions, it can be concluded that mindfulness and coping skills simultaneously can be predictors of competitive anxiety in athletes facing competition, both cognitive and somatic anxiety. Even so, without the involvement of coping skills, mindfulness itself can be a strong predictor of competitive anxiety in athletes. Mindfulness can significantly influence cognitive and somatic anxiety in athletes. This is because mindfulness is the ability to do something without making judgments on the situation, and prioritizing the ability to focus on it, and so can anticipate negative thoughts and improve self-control, to lower cognitive and somatic anxiety.

Meanwhile, coping skills do not at all influence competitive or somatic anxiety, because coping skills are more related to the mental ability to face competitive situations, and are not related to the effort made to lower physiological anxiety (somatic anxiety). Other than that, compared with mindfulness, coping skills do not significantly have a role in foreseeing anxiety in athletes; this may be because the measuring tool for coping skills used in the study has a wide range of dimensions in its measurement, so lacks a representation of the correlation with competitive anxiety. On the other hand, mindfulness focuses more on an athlete's ability to experience the current situation, without making judgments about what will happen, which will give rise to cognitive anxiety and indirectly influence somatic anxiety. When an athlete focuses more on the current situation, without judging, he/she will not dwell on negative thoughts, and will keep his/her focus on the goal, rather than worry about failure.

Suggestions

The measurement tool AAQ-II can be utilized to foresee the mindfulness of an athlete, which influences his/her ability to deal with competitive situations which may raise anxiety before he/she competes.

In an effort to overcome competitive anxiety in athletes, intervention to improve mindfulness in sports settings, such as the Mindfulness-Acceptance-Com-

mitment Approach developed by Gardner and Moore (2007), might be studied further.

Following researchers might undertake further study on mindfulness and competitive anxiety, by considering the more specific characteristics of the athletes, e.g. gender differences, as well as the type and characteristics of the sport (group or individual).

References

- Bali, A. (2015). Psychological factors affecting sports performance. *International Journal of Physical Education, Sports, and Health*, 1(6), 92-95.
- Baltzell, A., Caraballo, N., Chipman, K., & Hayden, L. (2014). A qualitative study of mindfulness meditation training for sport: Division I female soccer players' experiences. *Journal of Clinical Sport Psychology*, 8, 221-244. <https://doi.org/10.1123/jcsp.2014-0030>
- Bernier, M., Thienot, E., Codron, R., & Fournier, J. G. (2009). Mindfulness and acceptance approaches in sport performance. *Journal of Clinical Sport Psychology*, 4, 320-333.
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., ... Zettle, R. D. (2011). Preliminary psychometric properties of the acceptance and action questionnaire-II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy*, 42(4), 676-688. <https://doi.org/10.1016/j.beth.2011.03.007>
- Cerin, E. (2004). Predictors of competitive anxiety direction in male Tae Kwon Do practitioners: A multilevel mixed idiographic/nomothetic interactional approach. *Psychology of Sport and Exercise*, 5, 497-516.
- Coalter, F. (2005). *The social benefits of sport. An overview to inform the community planning process*. SportsScotland Research Report. University of Stirling.
- Cottraux, J. (2007). *Therapie cognitive et emotions: La troisieme vague* [Cognitive therapy and emotions: The third wave]. Paris: Elsevier Masson.
- Cox, R. H., Martens, M. P., & Russell, W. D. (2003). Measuring anxiety in athletics: The revised competitive state anxiety inventory-2. *Journal of Sport & Exercise Psychology*, 25, 519-533.
- Dias, C., Cruz, J. F., & Fonseca A. M. (2014). The relationship between multidimensional competitive anxiety, cognitive threat appraisal, and coping strategies: A multi-sport study. *International Journal of Sport and Exercise Psychology*, 10(1), 52-65.
- Endler, N. S., Parker, J. D. A., Bagby, R. M., & Cox, B. (1991). Multidimensionality of state and trait

- anxiety: Factor structure of the Endler multidimensional anxiety scales. *Journal of Personality and Social Psychology*, 60(6), 919-926.
- Forman, E. M., Herbert, J. D., Moitra, E., Yeomans, P. D., & Geller, P. A. (2007). A randomized controlled effectiveness trial of acceptance and commitment therapy and cognitive therapy, for anxiety and depression. *Behavior Modification*, 31, 772-799. <https://doi.org/10.1177/0145445507302202>
- Gardner, F. L., & Moore, Z. E. (2004). A mindfulness-acceptance-commitment-based approach to athletic performance enhancement: Theoretical considerations. *Behavior Therapy*, 35, 707-723.
- Gardner, F. L., & Moore, Z. E. (2007). *The psychology of enhancing human performance: The mindfulness-acceptance-commitment (MAC) approach*. New York: Springer Publishing Company, LLC.
- Gross, M., Moore, Z. E., Gardner, F. L., Wolanin, A. T., Pess, R., & Marks, D. R. (2016). An empirical examination comparing the mindfulness-acceptance-commitment approach and psychological skills training for the mental health and sport performance of female student athletes. *International Journal of Sport and Exercise Psychology*, 16(4), 431-451. <https://doi.org/10.1080/1612197X.2016.1250802>
- Grossbard, J. R., Smith, R. E., Smoll, F. L., & Cumming, S. P. (2009). Competitive anxiety in young athletes: Differentiating somatic anxiety, worry, and concentration disruption. *Anxiety, Stress & Coping*, 22(2), 153-166.
- Gunarsa, S. D. (2004). *Psikologi olahraga*. Jakarta: BPK. Gunung Mulia.
- Hardy, L., Jones, G., & Gould, D. (1996). *Understanding psychological preparation for sport: Theory and practice of elite performers*. Chichester, UK: Jones Wiley & Sons.
- Harris, R. (2009). *ACT made simple: An easy-to-read primer on acceptance and commitment therapy*. Oakland, CA: New Harbinger.
- Hanton, S., Evans, L., & Neil, R. (2003). Hardiness and the competitive trait anxiety response. *Anxiety, Stress and Coping*, 16(2), 167-184.
- Hanton, S., Neil, R., Mellalieu, S. D., & Fletcher, D. (2008). Competitive experience and performance status: An investigation into multidimensional anxiety and coping. *European Journal of Sport Science*, 8(3), 143-152. <https://doi.org/10.1080/17461390801987984>
- Jones, M. V., & Uphill, M. (2004). Responses to the competitive state anxiety inventory-2(d) by athletes in anxious and excited scenarios. *Psychology of Sport and Exercise*, 5, 201-212.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundation of behavioral research* (4th ed.). New York: Harcourt College Publishers.
- Khodayari, B., Saiiari, A., & Dehghani, Y. (2011). Comparison relation between mental skills with sport anxiety in sprint and endurance runners. *Procedia - Social and Behavioral Sciences*, 30, 2280-2284.
- Martens, R., Vealey, R. S., & Burton, D. (1990). *Competitive anxiety in sport*. Champaign, IL: Human Kinetics, Inc.
- Mellalieu, S. D., Hanton, S., & Fletcher, D. (2006). *A competitive anxiety review: Recent directions in sport psychology research*. New York: Nova Science Publishers, Inc.
- Moghadam, M. S., Sayadi, E., Samimifar, M., & Moharer, A. (2013). Impact assessment of mindfulness techniques education on anxiety and sports performance in badminton players Isfahan. *International Research Journal of Applied and Basic Sciences*, 4(5), 1170-1175.
- Neil, R., Wilson, K., Mellalieu, S. D., Hanton, S., & Taylor, J. (2012). Competitive anxiety intensity and interpretation: A two-study investigation into their relationship with performance. *International Journal of Sport and Exercise Psychology*, 10(2), 96-111.
- Parnabas, V. A., Mahamood, Y., & Parnabas, J. (2013). The relationship between cognitive and somatic anxiety on performance of student athletes of University of Malaysia, Perlis (UNIMAP). *Sport and Art*, 1(3), 61-66. <https://doi.org/10.13189/saj.2013.010301>
- Perry, J. D., & Williams, J. M. (1998). Relationship of intensity and direction of competitive trait anxiety to skill level and gender in tennis. *Sport Psychologist*, 12, 169-179.
- Petrillo, L. A. D., Kaufman, K. A., Glass, C. R., & Arnkoffet, D. B. (2009). Mindfulness for long-distance runners: An open trial using mindful sport performance enhancement (MSPE). *Journal of Clinical Sports Psychology*, 4, 357-376.
- Smith, R. E., & Schutz, R. W. (1995). Development and validation of a multidimensional measure of sport-specific psychological skills: The athletic coping skills inventory-28. *Journal of Sport & Exercise Psychology*, 17, 379-398.
- Weinberg, R. S., & Gould, D. (2015). *Foundations of sport and exercise psychology* (6th ed.) Champaign, IL: Human Kinetics.
- Woodman, T., Jones, G., & Gould, N. (2009). Emotions and sport performance: An exploration of hap-

piness, hope, and anger. *Journal of Sport & Exercise Psychology*, 31(2), 169-188. <https://doi.org/10.1123/jsep.31.2.169>

Zinn, J. K. (2010). *Wherever you go, there you are: Mindfulness meditation in everyday life*. London, UK: Hachette Books.