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Locus of Control, Healthy Lifestyle Behavior, and Psychological Well-Being among Student Athletes in Indonesia

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Abstract

Student athletes face the dual pressures of academic and sporting demands, which make them vulnerable to mental health problems. To be able to improve psychological well-being, it is necessary to have a locus of control from within student athletes, so that they are expected to be able to control themselves to carry out healthy living behaviors, so that psychological well-being can increase. Therefore, this study aims to analyze the relationship between locus of control, healthy living behaviors, and psychological well-being in student athletes in Indonesia. This study used a quantitative approach and multiple correlation analysis design involving 418 participants from various provinces in Indonesia. This study used 3 scales consisting of, IPC LOC (Internality, Powerful Others, and Chance Locus of Control), The Health-Promoting Lifestyle Profile II, and the scale of Psychological Well-Being. The result showed a significant relationship between locus of control with psychological well-being (r = 0,758 and sig. = 0,000), and healthy lifestyle behavior with psychological well-being (r = 0,513 and sig. = 0,000). The results obtained found that locus of control and healthy lifestyle behavior have a relationship with the achievement of psychological well-being of student athletes.

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INTRODUCTION

An athlete is an individual who has demonstrated exceptional potential or ability in a particular sport, which is then developed through systematic training and competition. Student-athletes are individuals who are still enrolled as students but are also actively involved in sports, participating in competitions, and achieving accomplishments (Graupensperger et al., 2020). As a student-athlete, they also face various demands, such as the necessity to maintain good academic performance despite experiencing physical and psychological fatigue due to regular training. Some competitions have specific academic standards that must be met for student-athletes to participate. This makes student-athletes vulnerable to stress from both academic and non-academic environments, which relates to physiological, social, academic conditions, and time management (Prawistri & Masykur, 2017).

There are 322 student-athletes undergoing academic and sports education at the Center for Education and Training of Student Athletes (BPPLOP, 2022). In addition, in 2019, 285 student-athletes were registered at Senior High School 116 Jakarta, which is better known as the Student Sports Training Center of DKI Jakarta (PDTPDKI Jakarta, 2019). Furthermore, there is a study conducted by Oktavia et al, (2023) on 62 student-athletes at a junior high school in Bandung City. This study showed that among the 62 student-athlete participants, 36 had good well-being, while 6 student-athletes experienced mild depression, and 20 student-athletes experienced severe depression. This highlights the importance of attention to the psychological well-being of student-athletes.

Morris et al, (2020), in their study of 109 student-athletes in the NCAA (Native Collegiate Athletic Association) Division I, revealed that there are still student-athletes experiencing mental health issues. About 23.7% of student-athletes exhibited mild symptoms of depression, and 6.3% experienced severe symptoms of depression. This indicates a low level of psychological well-being among them. The research conducted by Weber in 2023 on 615 student-athletes in the NCAA (National Collegiate Athletic Association) Division I and II showed that 22.3% of student-athletes are at risk of experiencing depression, while 12.5% face anxiety issues. Notably, this study did not find significant differences in mental health risk based on gender or the type of sport practiced, indicating that all student-athletes are vulnerable to these issues.

These conditions are supported by survey results conducted by the researchers on 50 respondents. The researchers obtained information that many respondents have a supportive environment, such as from friends and family, but this also makes them feel dissatisfied with their performance as athletes and students. This dissatisfaction is caused by high expectations from themselves and expectations from those around them. This may indicate that athletes do not have optimal psychological well-being, as evidenced by their inability to manage stress levels, face social pressure independently, set directions and goals, control their external environment, establish good relationships with others, accept themselves, and develop their personal potential (Aulia & Panjaitan, 2019). This indicates that excessive pressure can disrupt the psychological well-being of student-athletes.

Low psychological well-being can directly affect the performance of student athletes. Stress, anxiety, and poor mood can impact motor skills, decision-making abilities, and overall competitiveness. Research shows that good psychological well-being is crucial for elite athletes, and those lacking adequate mental resilience often perform below standards (Pujianto et al., 2022). In contrast, athletes with strong psychological well-being are more satisfied with their sports environment. They show greater commitment to their teams and sports organizations. For instance, a study on university student-athletes in Japan revealed that those who received significant support from coaches and peers demonstrated higher levels of psychological well-being, thereby enhancing job satisfaction and retention rates (Katagami & Tsuchiya, 2016).

Good psychological well-being is influenced by various factors, as Pramitadewi & Hendriani, (2023) stated that there are several factors affecting psychological well-being, including employment status, social support, age, gender, religiosity, and education level. There are also other factors influencing psychological well-being, such as social support and personality (Sholichah et al., 2018). In addition to the factors mentioned, one aspect related to psychological well-being is locus of control (Griffin, 2014). Locus of control is an important factor that affects the psychological well-being of an athlete(Hough et al., 2021). Saleh (2019) explained that exercise and physical activity can enhance psychological well-being by minimizing levels of anxiety, depression, and improving quality of life.

Locus of control refers to the extent to which an individual believes they have control

over the actions they take, whether that control stems from internal or external factors (Rotter, 1966). Furthermore, Robbins and Judge (2015) define locus of control as the degree to which individuals believe they have control over their own fate. Levenson, (1973) states that locus of control consists of several components that form it: First, internality, which refers to the belief that individuals have control over the events and outcomes in their lives. Second, powerful others, indicating that events in their lives are influenced by others, such as family, friends, or authoritative figures. Third, chance, which states that events in life are influenced by luck or destiny. Student-athletes with an internal locus of control tend to experience lower levels of stress and find it easier to achieve high academics. (Parker et al., 2024) In line with this, Holden et al., (2017) stated that student-athletes with an internal locus of control are generally more motivated and perform better in both sports and academic activities. Additionally, also indicated that athletes with high stress scores also tend to have low internal locus of control scores. This suggests that student-athletes with an external locus of control are more likely to experience higher stress and are less satisfied in various life domains.

In addition to the locus of control factor, another factor studied is healthy lifestyle behavior. Healthy lifestyle behavior is a pattern of activities driven by self-motivation that supports individuals in maintaining health and personal development (Walker & Hill, 1996; Wijaya & Huwae, 2024). According to Walker & Hill (1996), healthy lifestyle behavior consists of six components: First, spiritual growth, focusing on the inner development of student athletes through connection, transcendence, and growth. Second, interpersonal relationships, the use of communication to build closeness and intimacy in relationships. Third, nutrition, food choices that significantly impact the performance, health, and well-being of student athletes. Fourth, physical activity involves various levels of physical activity ranging from light to moderate to heavy, which is planned and monitored to support the health of student-athletes. Fifth, health responsibility, how student-athletes manage and take responsibility for their own health. Sixth, stress management: the ability of student-athletes to control or reduce stress(Walker & Hill., 1996).

Student-athletes who lead an unhealthy lifestyle tend to experience high levels of stress and low self-confidence (Hanawi et al., 2020). The lifestyle habits of student-athletes involving physical activity and poor dietary patterns can increase the risk of various health issues, such as stroke, heart disease, diabetes, cancer, and depression (Plotnikoff et al., 2015). On the other hand, student-athletes who choose high-quality and healthy foods tend to achieve better performance in academic settings. Consumption of candies and sweet drinks correlates with poorer performance, while those who consume vegetables and fruits perform better academically (Maniaci et al., 2023). Healthy student athletes are able to see stress as an opportunity for growth, have a more optimistic outlook on life, and can apply effective coping strategies to address problems. They also have good stress management, which contributes to better health and quality of life (Kiani et al., 2022).

Research conducted by Baniasadi and Salehian (2021), on 100 athletes states that sports and physical activities enhance psychological well-being and reduce mental health issues. Physical health supports the development of mental health as well as the growth and advancement of cognitive well-being in individuals. Sports and physical activities can strengthen and develop psychological well-being as part of positive psychology by enhancing positive personality traits and reducing negative behaviors. In line with this, Micheletto et al. (2022), state that athletes with a high locus of control can provide a high level of self-confidence in predicting success and can develop their psychological well-being effectively. And in the previous study by Taş and İskender (2017), it was stated that a high locus of control plays a role in psychological well-being, leading to self-acceptance and experiencing positive self-growth. Therefore, based on the studies above, locus of control and healthy lifestyle behaviors are related to psychological well-being.

Although previous research found that locus of control and healthy lifestyle behaviors predict psychological well-being, the issues faced by student athletes are very complex. In the journey to becoming an athlete, there are bound to be various problems and challenges. Student athletes are required to undergo intensive training and participate in sports at a high frequency. In addition, a less supportive environment, such as strict training from coaches and bullying from teammates, can also be an obstacle for them (Simons & Bird, 2023).

The results of this study are expected to provide information and knowledge, particularly in the field of sports psychology, particularly regarding locus of control, healthy lifestyle behaviors, and psychological well-being in student athletes. Likewise this study aims to provide in-

formation for student athletes to achieve good psychological well-being by maintaining a healthy locus of control and healthy lifestyle behaviors, and for educational institutions, this research can help them identify factors that support locus of control, healthy lifestyle behaviors, and psychological well-being in student athletes.

METHODS

Table 1. Demographics of Research Participants

Participant Classification	Information	N	Percentage
Age	12 – 15 Years	100	23.9%
	16 – 18 Years	180	43.06%
	19 – 23 Years	138	33.01%
	Total	418	100%
Domicile	Sumatra	19	19.85%
	Kalimantan	5	1.2%
	Jawa	318	76%
	Sulawesi	5	1.2%
	Bali	1	0.2%
	Nusa Tenggara	2	0.5%
	Maluku	2	0.48%
	Papua	2	0.48%
	Total	418	100%
Academic Status	Junior School Student	99	23.7%
	High School Student	191	45.7%
	University Student	128	30.6%
	Total	418	100%
Sport	Gymnastik	29	6.93%
	Big Ball	122	29.18%
	Athletics	99	23.68%
	Swimming	32	7.65%
	Small Ball	111	26.55%
	Martial Arts	25	6%
	Total	418	100%

The population in this study includes all student athletes, including junior high school students, high school students, and college students in Indonesia. The sampling technique used in this study is non-probability sampling, where the sample determination starts from a small number and then expands (Sugiyono, 2017), with the criteria for participants in this study being male and female student athletes from junior high school to university with an age range of 12 to 23 years. The collected data resulted in 418 participants who met these criteria (**Table 1**).

The measurements in this study used three psychological scales, namely the locus of control scale, the healthy lifestyle behavior scale, and the psychological well-being scale. Before being distributed, permission and the creation of informed consent were carried out. This study has passed ethical approval from the ethics committee of Universitas Muhammadiyah Malang with the number E.6,m/KE-FPsi-UMM/VI/2025. The study was designed in the form of a questionnaire that was distributed through a Google form conducted from March 18, 2025, to May 25, 2025.

The measurement uses a psychological scale consisting of a locus of control scale, healthy life behavior, and psychological well-being scale. The locus of control scale is calculated using the IPC Locus of Control that refers to the aspects of locus of control by Rotter and Layenson (1981), which are I (Internality), P (Powerful Others), and C (Chance) LOCI (Locus of Control). The locus of control scale consists of 24 items with favorable statements using a Likert model scale with four response options, namely, Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The item-total correlation coefficient ranges from r = 0.397 to 0.770, with a Cronbach's alpha reliability value of 0.938.

Table 2. Blueprint Locus of Control Scale

Dimension	Item		Total
	F	Uf	
Internality	1, 4, 5, 9, 18, 19, 21, 23	-	8
Powerful Others	3, 8, 11, 13, 15, 17, 20, 22	-	8
Change	2, 6, 7, 10, 12, 14, 16, 24	-	8
Total	24	-	24

The healthy lifestyle behavior scale is measured using the Health-Promoting Lifestyle Profile II scale from Walker & Hill (1996), which includes spiritual growth, interpersonal relations, nutrition, physical activity, health responsibility, and stress management. The healthy lifestyle behavior scale consists of 30 items that have been adapted into Indonesian by Wijaya and Huwae (2024). The locus of control scale consists of 24 items with favorable statements using a Likert model scale with four response options: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The item-total correlation coefficient ranges from r = 0.365 to 0.767 with a Cronbach's Alpha of 0.941.

Table 3. Blueprint Healthy Lifestyle Behavior Scale

Dimension	Item		Total
	F	Uf	
Spiritual Growth	1, 3, 7, 8, 10, 11	-	6
Interpersonal Relations	2, 13, 14, 18, 20, 24, 27	-	7
Nutrition	4, 5, 6, 9, 19, 25, 26	-	7
Physical Activity	12, 15, 16, 20, 23, 28	-	6
Health Responsibility	17, 22	-	2
Stress Management	29, 30	-	2
Total	30	-	30

The scale of psychological well-being is measured using the Ryff Scales of Psychological Well-Being which has been adapted by Fadhil, (2021). This adaptation is based on the dimensions of psychological well-being fromRyff, (2013), which includes autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. This scale consists of 28 items that include both favorable and unfavorable statements. The scale uses a Likert scale model with four response options: Always, Often, Sometimes, and Never. The item-total correlation coefficients range from r = 0.367 to 0.764 with a Cronbach's Alpha of 0.928.

Table 4. Blueprint Psychological Well-Being Scale

Dimension	Item		Total
	F	Uf	
Self-acceptance	-	1, 2, 3, 4, 5, 6, 7	7
Positif Relations	14, 15, 16	13, 17	5
Autonomy	26, 28	27	3
Enviromental Mastery	22, 23, 24, 25	-	4
Purpose in life	18, 19, 21	20	4
Personal growth	8, 9, 10, 11, 12	-	5
Total	17	11	28

The data analysis technique in this study uses multiple linear regression. However, before the hypothesis testing in this study is conducted, the researcher has performed normality tests, linearity tests, multicollinearity tests, and heteroscedasticity tests. The data analysis process in the research is carried out using the help of SPSS version 24 for Windows.

RESULTS AND DISCUSSION

The result of the correlation test using the Spearman Correlation revealed a correlation of 0.758 (p = 0.000) between locus of control with psychological well-being, and correlation of 0.513 (p = 0.000) between healthy lifestyle behavior. The findings suggest that locus of control and healthy living behavior are the factors associated with the improvement of psychological well-being in student athletes.

Table 5. Correlation Test Result of Locus of Control and Healthy lifestyle behavior with Psychological Well-Being.

		1	2	3
Locus of control	Spearman Correlation	1		
	Sig. (1-tailed)	0.000		
Healthy Lifestyle Behavior	Spearman Correlation	0.496**	1	
	Sig. (1-tailed)	0.000		
Psychological Well-Being	Spearman Correlation	0.758**	0.513**	1
	Sig. (1-tailed)	0.000	0.000	

The results from the descriptive statistical data involving 418 participants in Table 5 show that the locus of control variable has a minimum score of 57, a maximum score of 77, an average of 66.81, and a standard deviation of 3.176. Furthermore, for the healthy lifestyle behavior variable, the minimum score is 82, the maximum score is 100, the average is 90.00, and the standard deviation is 2.941. Lastly, for the psychological well-being variable, the minimum score is 64, the maximum score is 81, the average is 72.64, and the standard deviation is 3.840.

Normality Test.

From the results of the normality test, it can be seen through the non-parametric Kolmogorov-Smirnov statistical test with a value of 0.064 and a probability (p) or significance level of 0.000 (P<0.05), that the three variables in this study do not have a normal distribution.

Linearity Test

From the results of the linearity test, the

locus of control variable value was obtained at 1458.104 with a significance of 0.000 ($p<0.05$), indicating that locus of control and psychological well-being are linear. Additionally, the healthy lifestyle behavior variable value was obtained at 886.307 with a significance of 0.000 ($p<0.05$), indicating that healthy lifestyle behavior and psychological well-being are linear.

Multicollinearity Test

From the results of the multicollinearity test, it was found that the variables studied have a tolerance value greater than 0.10 and a VIF value smaller than 10, which means that there is no multicollinearity problem with the variables used.

Heteroscedasticity Test

The results of the heteroscedasticity test in this study obtained a significance of 0.907 ($p>0.05$) for the locus of control variable and 0.223 ($p>0.05$) for healthy lifestyle behavior, indicating that the data in this variable do not contain heteroscedasticity.

Hypothesis Test

The research obtained that locus of control and healthy lifestyle behaviors can be significant predictors of psychological well-being. This is due to the Spearman correlation value of the locus of control predictor and psychological well-being being less than 0.05, indicating a significant relationship. Furthermore, the Spearman correlation value of healthy lifestyle behaviors and the predictor of psychological well-being also has a value of less than 0.05, indicating a significant relationship.

This research also shows that locus of control and healthy lifestyle behaviors can be significant predictors of psychological well-being because their contribution is 88.4%. From this research it is known that the F value of locus of control and healthy living behavior is 742.674 with a significance of 0.000 ($p<0.05$). Therefore, it can be concluded that locus of control and healthy living behavior significantly predict psychological well-being in student athletes in Indonesia.

This study also explained that locus of control and psychological well-being have a significance value of 0.000 ($p<0.05$), indicating that locus of control can significantly predict psychological well-being. Furthermore, healthy living behavior and psychological well-being also have a significant value of 0.000 ($p<0.05$), thus healthy living behavior can significantly predict psychological well-being. Therefore, it can be concluded that locus of control and healthy living behavior together can be significant predictors of psychological well-being in Indonesia.

The results of this study show that the proposed major hypothesis is accepted, with evidence that locus of control and psychological well-being simultaneously serve as significant predictors of the psychological well-being of student-athletes in Indonesia. This research is in line with Lu et al. (2018), which shows that perceptions of social support and self-control play a role in psychological well-being through certain neuropsychological mechanisms, strengthening the relationship between locus of control and psychological well-being. Additionally, Sachar & Maslihah (2023) demonstrate that locus of control and healthy lifestyle behaviors contribute to better psychological well-being. Student-athletes who have a locus of control, along with healthy attitudes and behaviors, show that individuals tend to be more compliant in maintaining health and engaging in healthy behaviors that contribute to psychological well-being.

Individuals who have full control over themselves tend to be more capable of self-regulation, accepting themselves as they are, developing their potential, and solving problems independently. This increases self-confidence, optimism, and adaptability, which contribute to higher psychological well-being (Prihartini et al., 2023). The combination of locus of control and healthy lifestyle behaviors creates a synergy that enhances psychological well-being, as individuals who can control their lives are more consistent in engaging in healthy lifestyle behaviors, which in turn enhances psychological well-being through stress reduction, increased energy, and a sense of personal achievement. A study conducted by Amar et al. (2023) found that with good self-control, athletes tend to be more confident and able to manage their emotions, leading to better psychological well-being. In the context of this study, physical activity also serves as a coping mechanism that can reduce anxiety and improve mood, thereby supporting the psychological well-being of student-athletes.

This research is significant for student athletes in Indonesia, because student athletes face the dual pressure of being both athletes and students. Rachman et al. (2024) highlight that this condition can lead to student athletes who are unable to manage stress, social pressure, and develop their potential optimally, resulting in low psychological well-being. Therefore, it is important for student athletes to have good self-control, as individuals can engage in healthy lifestyle behaviors that contribute to their psychological well-being (Sachar & Maslihah, 2023).

The locus of control itself can describe the extent to which an individual believes they have control over the events and outcomes in their life. Research conducted by Sholichah et al. (2018) found that locus of control has a positive correlation with psychological well-being, contributing effectively 53.6% to the psychological well-being of the athletes. Another study by Li et al. (2025) reinforces the findings that locus of control has a positive relationship with psychological well-being and better coping abilities in dealing with anxiety and depression. Student athletes who possess a good locus of control, which is the belief that success and failure are determined by their own efforts and abilities, have higher psychological well-being. This is because they are able to manage stress, are more proactive in facing challenges, and have a strong motivation to achieve accomplishments, thereby enhancing their performance and psychological well-being (Basri et al., 2024).

Student athletes who engage in healthy lifestyle behaviors, such as regular exercise, a balanced diet, sufficient sleep, and good hygiene habits, can strengthen their psychological well-being, as good physical fitness contributes to improved mood, reduced stress, and increased energy. Awareness of the importance of health encourages athletes to adopt healthy behaviors, which in turn enhances their psychological well-being Saufi et al. (2024). Research conducted by Indriyani et al. (2019) found that exercise acts as a mediator that strengthens the predictors of health awareness on psychological well-being. In addition, a study by Keliat et al. (2023) found a significant relationship between physical activity and mental health. Regular physical activity improves individuals' mental health. In leading a healthy life, there are three main lifestyle habits, namely physical activity, diet, and sleep habits, that contribute to psychological well-being. The results indicate that lifestyle habits significantly enhance psychological well-being and reduce symptoms of stress and anxiety (García-Pérez et al., 2025).

From the results presented, this research provides new findings in understanding the psychological well-being of student athletes. This study specifically investigates student athletes, who face dual pressures from academics and sports performance. Good psychological well-being can be achieved if student athletes have good self-control and can manage their lives to consistently maintain a healthy lifestyle, allowing them to manage stress and proactively face challenges as student athletes. Therefore, this research integrates three important concepts: locus of control, healthy lifestyle behavior, and psychological well-being in the context of student athletes in Indonesia.

Nevertheless, this study has several limitations. First, student athletes have different experiences and backgrounds, which may affect the results of the study; for instance, different training experiences may impact their mental health. Second, although this study includes student athletes from various provinces, generalizing the results may be limited due to the unique characteristics of each region. Results from one province may not be broadly applicable to other provinces with different social and cultural conditions. Third, data collection was conducted during a specific period that may not reflect normal conditions, such as before a major competition or after a competition.

CONCLUSION

The conclusion of this study is that locus of control and healthy lifestyle behavior together serve as significant predictors of psychological well-being among student athletes in Indonesia. Specifically, locus of control is a predictor of psychological well-being, and healthy lifestyle behavior also predicts psychological well-being. These findings emphasize the importance of student athletes to have good self-control because with self-control, student athletes can manage themselves to adopt a healthy lifestyle that contributes to good psychological well-being.

Based on the results of this research, there are several recommendations that can be proposed to support student-athletes. First, student-athletes are advised to have good self-control, as this allows individuals to be disciplined in their obligations as both athletes and students. Second, schools can create a supportive school environment where student-athletes can feel safe to share challenges and receive support from peers, teachers, and coaches. Third, for future researchers, conducting longitudinal studies could track changes in locus of control, healthy lifestyle behaviors, and psychological well-being of student-athletes over time, thus providing a deeper understanding of these dynamics.

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