

## Exploring the Correlation Between Physical Activity Levels and Mental Health among Employees at Majlis Sukan Negeri Johor

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To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v14-i3/20818>

DOI:10.6007/IJARBSS/v14-i3/20818

**Published Date:** 08 March 2024

### Abstract

Physical activity plays a pivotal role in fostering a conducive work environment by promoting the mental well-being of employees within an organization. The primary objective of this research is to investigate the correlation between levels of physical activity and mental health among employees at Majlis Sukan Negeri Johor. A total of 110 respondents (54 males and 56 females) were selected through a simple random sampling technique. A survey-based approach was adopted, utilizing a questionnaire consisting of 27 items to assess physical activity levels, employing the International Physical Activity Questionnaire Short-Form (IPAQ-SF), and mental health, using the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) questionnaire. The analysis commenced with descriptive statistics to outline the employees' physical activity levels and mental health statuses. Subsequently, Spearman's Rho correlation analysis was employed to ascertain any associations between physical activity levels and mental health among the employees at Majlis Sukan Negeri Johor. The findings reveal that the majority of employees exhibit moderate levels of physical activity, with the highest mean score observed in the Hedonic Perspective domain of mental health. However, Spearman's Rho correlation analysis did not yield a statistically significant relationship. In conclusion, the study underscores the importance of encouraging employees to engage in increased physical activity as part of their weekly routines to enhance their overall mental well-being. As a recommendation for future research, further hypothesis testing and a larger sample size are suggested to validate and expand upon the findings within this specific research domain.

**Keywords:** Physical Activity Level, Mental Health, Employees

**Introduction**

This research contributes to health by examining the relationship between physical activity levels and mental health. Nevertheless, this research has the capacity to provide a clearer understanding of the extent to which physical activity impacts the mental health of working adults. Therefore, the findings of this study can provide valuable insights for Majlis Sukan Negeri Johor in gaining a deeper understanding of the relationship between physical activity levels and mental health. This knowledge can enhance working adults' productivity and overall health in terms of their internal well-being and external performance. According to Biddle et al (2018), individuals who engage in any form of physical activity are less likely to have encountered mental health challenges in the preceding 30 days compared to their sedentary counterparts. Active employees often exhibit enhanced immune systems, increased focus and productivity, a more positive outlook, and improvements in their mental health. Consequently, physical activity has been established to positively influence mood, reducing mental health issues and fostering heightened workplace productivity and decision-making. The prevalence of mental health concerns is on the rise, impacting various facets of an individual's life, especially within the professional domain (Liu et al., 2022). In 2018, approximately 4.57 million working individuals grappled with mental health difficulties, with 29% of the workforce reporting suboptimal health conditions (Relate Malaysia, 2022). Previous research has revealed that modest levels of physical activity have minimal effects on employees' mental health, while those who engage in regular exercise tend to be more productive and perform better in their roles (Smith et al., 2019). However, numerous factors contribute to the lack of physical activity among Malaysian employees (Argus & Pääsuke, 2021). The preceding investigation by Lim et al (2020) identified that employees in the sports and leisure industry frequently encounter heightened work pressure, a factor contributing to mental health challenges linked to workplace stress and work-life imbalance. In accordance with the theory of basic psychological needs expounded by Morillo et al (2018), the presence of competence, autonomy, and relatedness at elevated levels can function as intrinsic motivators, fostering greater engagement in physical activity and yielding improved health outcomes. Furthermore, a robust hedonic perspective, as elucidated by Bell et al (2019), augments employees' job satisfaction and overall life contentment. In contrast, the eudaimonic perspective posits that employees who pursue their passions experience reduced stress and enhanced resilience. Kim (2022) also asserts that a strong sense of spiritual well-being contributes to the reduction of workplace tension and fatigue.

In addition to these psychological aspects, increased physical activity has been associated with a diminished incidence of mental health issues such as stress, depression, and anxiety, as emphasized by (Harvey et al., 2017). It is notable that physical activity can be categorized into three levels: low-intensity, moderate, and high-intensity, as outlined by Smith et al (2019), who further posits that employees who engage in regular exercise tend to exhibit heightened productivity and job performance. Clearly, maintaining a moderate level of physical activity significantly influences employees' mental health. This research adds value by examining the nexus between physical activity levels and mental health. Furthermore, it has the potential to offer a more comprehensive understanding of how physical activity affects employees' mental well-being. This study can serve as a valuable reference for future research endeavours exploring the correlation between physical activity levels and mental health among employees. Physical activity stands out as a pivotal factor in enhancing employees' mental health (Thomas et al., 2020), with regular physical activity known to boost

life satisfaction and mental well-being (Maher et al., 2017). Consequently, the findings of this study can furnish Majlis Sukan Negeri Johor with invaluable insights into the interplay between physical activity levels and mental health. This knowledge has the potential to augment employees' overall well-being and performance, both internally and externally. Therefore, the levels of physical activity among employees at Majlis Sukan Negeri Johor have a discernible impact on their overall health and well-being, encompassing mental health and job performance.

### **Methods**

The research methodology employed in this survey study aimed to gather quantitative data from a specific population. Data collection was carried out in a single instance, involving face-to-face distribution of questionnaires to participants. This study utilized both descriptive and inferential analyses. Descriptive analysis was employed to assess the levels of physical activity and mental health among employees at Majlis Sukan Negeri Johor, while inferential analysis was used to ascertain the relationship between physical activity levels and mental health among these employees. The research applied a simple random sampling method to select respondents from the employee pool at Majlis Sukan Negeri Johor, encompassing both males and females. This recruitment process encompassed five departments within Majlis Sukan Negeri Johor, from which employees were randomly chosen to participate in the study. The total employee population at Majlis Sukan Negeri Johor comprises 120 individuals (59 males and 61 females).

Utilizing the Bukhari Sample Size Calculator, the ideal sample size was determined to be 92, which is sufficient to represent the population and generalize the study's findings. A total of 110 employees in Majlis Sukan Negeri Johor participated in this study. The questionnaire utilized in this research was structured into three sections: Sections A, B, and C. Section A focused on gathering demographic information about the employees, including gender, age, race, marital status, household income, and education level. Section B assessed participants' physical activity levels using the International Physical Activity Questionnaire-Short Form (IPAQ-SF), which consisted of seven items. This instrument demonstrated a reliability coefficient of 0.73 and inquired about the amount of time spent engaged in physical activity over the preceding seven days. The data collected was subsequently categorized into low, moderate, or high activity levels. In Section C, mental health was evaluated using the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS), comprising 20 elements that encompassed hedonic perspective (14), eudaimonic perspective (14), and spiritual well-being (6). The reliability of this scale was confirmed with a Cronbach's Alpha coefficient of  $\alpha=0.91$ . Respondents used a five-point scale, ranging from "none of the time" (1) to "all the time" (5), to indicate their mental well-being across various dimensions.

### **Result**

Data collected will be analyzed using descriptive and inferential analysis. The descriptive analysis will represent the mental health mean among employees, while physical activity levels among employees will represent the frequency. Next, the inferential analysis is on the relationship between physical activity levels and mental health among employees at Majlis Sukan Negeri Johor. The questionnaires have been analyzed using the Kolmogorov-Smirnov test to determine normal distribution data. Based on the statistical analysis test of normality

Kolmogorov-Smirnov, all dimensions exceed the p-value of 0.05, which can be assumed to be normally distributed.

Table 1  
*Descriptive Statistics on Physical Activity Levels*

Gender	Low		Moderate		High	
	f	%	f	%	f	%
Male	18	16.36	22	20	14	12.73
Female	16	14.55	34	30.91	6	5.45

Table 1 shows that most employees at Majlis Sukan Negeri Johor have **moderate** levels of physical activity, with 20% (f =22) male and 30.91% (f =34) female, followed by **low** levels which 16.36% (f =18) is male and 14.55% (f =16) is female while the lowest of physical activity level is **high** with 12.73% (f =14) is male and 5.45% (f =6) is female out of a total of 110 respondents.

Table 2  
*Descriptive Statistics on Mental Health*

	Mean	Std. deviation
<i>I've been feeling useful.</i>	3.98	.835
<i>I've been feeling interested in other people.</i>	3.98	.835
<i>I have the strength to hinder wrong deeds.</i>	3.98	.835
<i>I've been dealing with problems well.</i>	4.28	.692
<i>I believe my problems could be solved easily if I am close to God.</i>	4.28	.692
.....		
<i>I think I am being guided by God.</i>	4.55	.659
<i>I've been feeling loved.</i>	4.55	.786
<i>I've been feeling cheerful.</i>	4.55	.786
<i>I've been able to make up my own mind about things.</i>	4.59	.530
<i>I've been interested in new things.</i>	4.59	.530

Table 2 shows the descriptive statistics on mental health among employees at Majlis Sukan Negeri Johor. The highest mean score of mental health level was 'I've been interested in new things' (M=4.59, SD=.530), which the item is a hedonic perspective, while the lowest mean score was 'I've been feeling useful' (M=3.98, SD=.835) which the item is eudaimonic perspective. Thus, these findings can help understand employees' mental health status and guide interventions and support systems to promote positive mental health outcomes.

Table 3  
*Domain of Mental Health*

	Mean	Std. deviation
<i>Spiritual Well-Being</i>	5.15	.72
<i>Eudaimonic Perspective</i>	6.03	.81
<i>Hedonic Perspective</i>	6.24	.66

Table 3 shows the descriptive statistics on mental health domains among employees at Majlis Sukan Negeri Johor. The highest mean score of the mental health domain is 'Hedonic

Perspective' (M=6.24, SD= .66), while the lowest mean score of the mental health domain is 'Spiritual Well-Being' (M=5.15, SD= .72).

Table 4

*The Relationship Between Physical Activity Levels and Mental Health Among employees at Majlis Sukan Negeri Johor*

Physical Activity Levels		Mental Health
	Correlation Coefficient	-.009
	Sig. (2-tailed)	.923
	N	110

Spearman's Rho was used to examine and test the strength of the associations between the variables of physical activity level and mental health. Table 4 shows the findings of the correlation analysis that examined the relationship between physical activity level and mental health. Based on the results above, the physical activity level had no significant relationship with mental health ( $\rho = -0.009$ ,  $p = 0.923$ ,  $p > 0.05$ ) among employees at Majlis Sukan Negeri Johor.

### Discussion

The present study reveals that many employees at Majlis Sukan Negeri Johor engage in leisure activities at a moderate intensity level. This is primarily attributed to their regular participation in the RiseUp Run Community Program, a weekly event held on Friday nights. The hedonic perspective is considered to have the most significant influence on the mental well-being of employees at Majlis Sukan Negeri Johor. This assertion is supported by Bell et al. (2019), who found that a strong hedonic perspective is positively associated with job satisfaction and overall life contentment among employees. Following closely is the eudaimonic perspective, as indicated Chai and Park (2022), which emphasizes aligning personal values and characteristics with one's work, leading to enhanced psychological well-being and reduced burnout. On the other hand, the domain of spiritual well-being has the least impact on mental health, although it is worth noting that individuals with a rich spiritual life tend to experience improved mental well-being, including lower rates of anxiety and depression (Smith & Jones, 2021). The findings of this study have demonstrated a non-significant relationship between physical activity levels and mental health among employees at Majlis Sukan Negeri Johor. The research objective was aligned with the findings of a previous study conducted by Harvey et al (2017), which indicated that increased physical activity levels were linked to decreased mental health issues, including stress, depression, and anxiety. Nevertheless, it is important to note that variations in the definition and measurement of physical activity's impact on mental health across different studies may have contributed to divergent findings. Moreover, external variables such as the sample size, the participants' demographic characteristics, and the specific context in which the study was conducted can influence the outcomes. Hence, it is imperative to consider these factors when determining the appropriate interpretation of various research findings on the relationship between physical activity and mental health.

### Conclusion

In summary, the study findings indicate a non-significant association between physical activity and mental health among Majlis Sukan Negeri Johor employees. This suggests that employees

should engage in more physical activity each week for improved mental health. Prioritizing regular physical activity and the cultivation of positive social relationships may equip our bodies and minds with the tools necessary to thrive. This demonstrates that a healthy lifestyle empowers people to lead a more resilient and fulfilling life. Hence, this study suggests that future studies on physical activity levels and mental health be conducted in other public or private organizations, as this study was carried out among employees in Majlis Sukan Negeri Johor. Additionally, it is recommended that future research be conducted as a longitudinal study to assess the connection between these variables. Finally, the researchers advise that future research could explore other variables such as social well-being and work performance.

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