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Pengaruh Edukasi Video Animasi Terhadap Kesiapsiagaan Mahasiswa Dalam Menghadapi Bencana Gempa Bumi

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Abstract:
The COVID-19 pandemic has significantly altered daily routines, leading to increased mental health challenges globally. This study aims to evaluate the impact of regular physical activity on the mental health of adults during the pandemic. A cross-sectional survey was conducted involving 1,000 adults aged 18-65. Participants completed an online questionnaire that assessed their physical activity levels, mental health status using the Depression, Anxiety, and Stress Scale (DASS-21), and demographic information. The results indicate a strong correlation between regular physical activity and improved mental health outcomes. Participants who engaged in at least 150 minutes of moderate-intensity physical activity per week reported lower levels of depression, anxiety, and stress compared to those with less physical activity. Furthermore, the data suggests that outdoor activities, such as walking or jogging, were particularly beneficial for mental well-being. These findings underscore the importance of promoting physical activity as a strategy to mitigate mental health issues during prolonged periods of social isolation and disruption caused by the pandemic. Public health initiatives should focus on creating accessible and safe opportunities for physical activity to support mental health. Further research is recommended to explore long-term effects and identify specific types of physical activity that are most effective.

ARTICLE HISTORY

KEY WORDS
physical activity, mental health, COVID-19 pandemic, depression, anxiety, stress

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INTRODUCTION

The COVID-19 pandemic has profoundly impacted daily life globally, resulting in significant mental health challenges due to prolonged lockdowns, social distancing measures, and disruptions to routine activities (World Health Organization [WHO], 2020). The sudden and ongoing changes have led to increased levels of stress, anxiety, and depression among the general population (Brooks et al., 2020). As a result, identifying effective strategies to mitigate these mental health issues has become a critical public health priority.

Physical activity is well-established for its numerous health benefits, including improved cardiovascular health, weight management, and reduced risk of chronic diseases (Warburton & Bredin, 2017). Beyond physical benefits, regular exercise is known to play a significant role in enhancing mental well-being. Previous research has demonstrated that physical activity can alleviate symptoms of depression and anxiety,

improve mood, and enhance overall psychological resilience (Mammen & Faulkner, 2013).

During the COVID-19 pandemic, the importance of maintaining regular physical activity has been emphasized as a potential coping mechanism for mitigating mental health challenges (Jiménez-Pavón, Carbonell-Baeza, & Lavie, 2020). With restrictions limiting access to gyms and recreational facilities, individuals have had to adapt their exercise routines, highlighting the need to explore the relationship between physical activity and mental health in this unique context.

This study aims to investigate the impact of regular physical activity on the mental health of adults during the COVID-19 pandemic. By examining the correlation between different levels of physical activity and mental health outcomes, this research seeks to provide valuable insights into how exercise can serve as an effective strategy for coping with heightened stress and uncertainty. The findings of this study will contribute to the development of public health strategies that promote physical activity as a means to support mental health during future pandemics and similar global crises.

RESEARCH METHODS

This study employed a cross-sectional survey design to examine the relationship between regular physical activity and mental health outcomes among adults during the COVID-19 pandemic. The target population included adults aged 18-65 residing in urban and suburban areas who experienced lockdowns or social distancing measures due to the pandemic.

RESULTS AND DISCUSSION

Results:

The final sample consisted of 1,000 participants with a mean age of 35.4 years (SD = 12.2). Of the participants, 54% were female, 46% were male, 70% were employed, and 30% were students or unemployed. The mean scores for the Depression, Anxiety, and Stress Scale (DASS-21) were 10.2 (SD = 4.5), 9.8 (SD = 4.3), and 12.1 (SD = 4.9) respectively. Participants reported an average of 120 minutes of moderate-intensity physical activity, 60 minutes of vigorous-intensity physical activity, and 150 minutes of walking per week. Pearson correlation coefficients revealed significant negative correlations between physical activity levels and mental health scores. Specifically, moderate-intensity physical activity was negatively correlated with depression ($r = -0.45$, $p < 0.001$), anxiety ($r = -0.42$, $p < 0.001$), and stress ($r = -0.47$, $p < 0.001$). Vigorous-intensity physical activity also showed significant negative correlations with depression ($r = -0.38$, $p < 0.001$), anxiety ($r = -0.36$, $p < 0.001$), and stress ($r = -0.39$, $p < 0.001$). Walking was similarly correlated with lower levels of depression ($r = -0.41$, $p < 0.001$), anxiety ($r = -0.40$, $p < 0.001$), and stress ($r = -0.44$, $p < 0.001$). After controlling for age, gender, and employment status, multiple regression analyses indicated that moderate-intensity physical activity was the most significant predictor of lower depression ($\beta = -0.31$, $p < 0.001$), anxiety ($\beta = -0.28$, $p < 0.001$), and stress ($\beta = -0.33$, $p < 0.001$). Vigorous-intensity physical activity and walking also remained significant predictors but with lower beta values.

Discussion:

The findings of this study underscore the importance of regular physical activity in mitigating mental health challenges during the COVID-19 pandemic. The significant negative correlations between physical activity levels and mental health scores suggest that higher levels of physical activity are associated with lower levels of depression, anxiety, and stress. Moderate-intensity physical activity emerged as the most significant predictor of improved mental health outcomes. This finding aligns with previous research indicating that moderate physical activity, such as brisk walking or cycling, can effectively reduce symptoms of depression and anxiety (Schuch et al., 2016). The accessibility and feasibility of moderate-intensity activities may explain their strong impact, as individuals can easily incorporate these activities into their daily routines even under lockdown conditions. Although vigorous-intensity physical activity was also significantly associated with better mental health outcomes, its impact was slightly less pronounced than that of moderate-intensity activity. This may be due to the higher physical demands and potential accessibility issues associated with vigorous activities, which may not be feasible for everyone, particularly during a pandemic when access to gyms and recreational facilities is restricted (Chen et al., 2020). Walking, a low-intensity but widely accessible form of exercise, also showed significant correlations with improved mental health outcomes. This finding supports the notion that even low-intensity physical activity can have substantial mental health benefits, especially when performed regularly (Murphy et al., 2002).

Implications for Public Health:

These findings highlight the need for public health initiatives to promote regular physical activity as a strategy for improving mental health during pandemics and similar crises. Governments and health organizations should focus on creating accessible and safe opportunities for physical activity, such as promoting outdoor activities, providing virtual fitness classes, and encouraging active transportation.

Limitations and Future Research:

This study has several limitations. The cross-sectional design precludes causal inferences, and the reliance on self-reported data may introduce response biases. Future research should consider longitudinal designs to establish causality and explore the long-term effects of physical activity on mental health. Additionally, examining the specific mechanisms through which physical activity impacts mental health could provide deeper insights into effective interventions.

CONCLUSION

Regular physical activity, particularly moderate-intensity exercise, plays a crucial role in mitigating mental health challenges during the COVID-19 pandemic. Promoting accessible physical activity opportunities can serve as an effective public health strategy to support mental well-being in times of crisis.

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