

# Positive Relationship Between Physical Activity and Emotional Mental Health In Housewives

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## Abstract

The purpose of this study was to determine the relationship between physical activity and emotional mental health in housewives. This research is correlational with a cross-sectional study approach. A total of 35 women with criteria, namely being housewives, aged 20-30 years, living with their husbands, having children at least 2 years old, domiciled in Malang Regency, East Java, Indonesia voluntarily participated as respondents in this study by filling out and signing informed consent. The level of physical activity in this study was measured using the Global Physical Activity Questionnaire (GPAQ) and emotional mental health levels were measured using the Depression, Anxiety, and Stress Scales (DASS42). Measurements of the level of physical activity and the level of emotional mental health were carried out simultaneously. The data analysis technique used the Chi-Square test with a statistical software package for social sciences (SPSS) version 21.0 with a significance level of 5%. The results of the analysis of the average level of physical activity of housewives in the medium category were 45.72% (16 people), the low category was 25.71% (9 people) and the high category was 28.57% (10 people). The average emotional-mental health of housewives in the normal category was 45.72% (16 people), mild 17.14% (6 people), moderate 20.00% (7 people), and heavy 17.14% (6 people). The results of the Chi-Square test show that there is a positive relationship between physical activity and emotional-mental health with the Pearson Chi-Square value of 55.222 and p-value=0.000. Based on the results of the study, it was concluded that there was a positive relationship between physical activity and emotional-mental health in housewives.

Keywords: Physical activity, emotional mental health, housewives

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## 1. Introduction

Mental disorders, such as depression and anxiety, are major contributors to the global health burden (COVID-19 Mental Disorders Collaborators, 2021) and is one of the leading causes of disability worldwide (Whiteford et al., 2013). Globally, it is estimated that 264 million people suffer from depression more in women than men (GBD 2017 Disease and Injury Incidence and Prevalence Collaborators, 2018). The World Health Organization (2017) reports that the prevalence rate of the world population experiencing depression in 2015 was estimated at 4.4% or around 322 million people, consisting of 5.1% women and 3.6% men. Meanwhile, the prevalence rate of the population with anxiety disorders in 2015 was estimated at 3.6%, or around 264 million people consisting of 4.6% women and 2.6% men (World Health Organization, 2017). The increasing prevalence of mental disorders can have an impact on health problems such as disability, increased social burden, human rights, and greater medical costs worldwide (Gatner, et al., 2022; World Health Organization, 2019).

A woman consistently experiences more stress, anxiety, lifestyle changes, various health problems, and work-related musculoskeletal disorders (Panwar & Srivastava, 2018). Married women have dual roles, namely as housewives and careers. The main role of women is as a wife and mother so they have to adapt to both roles (Kartika et al., 2013). The dual role of housewives can create isolated, monotonous conditions and has the potential to cause mental health disorders, such as neurosis and psychosis which can affect the state of mind, mental health, feelings,

and individual behavior in everyday life (Gertenbach, 2020). Duncan et al. (2022) in their study reported that low levels of physical activity were associated with an increased likelihood of developing poor mental health among adults regardless of whether insomnia symptoms were present or not.

Disorders of neurosis and psychosis cause direct reactions in the body, such as an increase in the hormone cortisol, which results in a faster increase in heart rate, respiratory problems, muscle tension, cold sweats, and even prolonged stress that can cause other health problems and such as disability (Whiteford et al., 2013; Rosenbaum et al., 2014). Therefore, conditions that have the potential to cause mental health disorders must be controlled, one of them by doing physical activity in spare time, physical movement behavior through work, as well as regular sports participation can prevent and reduce stress levels. Constraints to efforts to promote physical activity tend to be from a sedentary lifestyle (Chekroud et al., 2018). Physical activity activates endorphins in the body which can reduce, prevent, and eliminate the effects of stress and anxiety, keep anger, and tension away, improve mood, and serve as a distraction for other mental health disorders, while a lack of healthy lifestyle activities makes the heart weaker. (Walker et al., 2015; Rejeki et al., 2022).

Mental health is a state where individuals understand their abilities and can handle normal stresses that exist in their daily lives, work productively and contribute to a social environment that is integrated with physical health (Biddle, 2016). Accustomed to being physically active regularly and continuously is very effective in controlling emotional and mental health, reducing psychiatric symptoms, helping in better social engagement, avoiding overreacting when faced with problems, concentrating more, always positive thinking, confident, can maintain a good mood, high motivation, increased cardiovascular function, increased respiratory capacity, weight control (Abdullah Hassan & Fahmi Mohd Teng, 2020). Exercise improves mental health by reducing anxiety, and depression, and improving mood and cognitive function (Sharma et al., 2006; Callaghan, 2004). Changes in physical activity behavior are carried out gradually until the peak of the effectiveness of moderate physical activity is balanced with sufficient motivation, which must maximize opportunities, willingness, and commitment (Saleh, 2019). Moderate-intensity physical exercise is highly recommended (Gupta et al., 2016; Fortune et al., 2021; Fortune et al., 2022). Moderate physical activity is described as an aerobic activity with a weekly count of five or more days of walking at least 30 minutes/day until the intensity reaches 600 MET, such as swimming, brisk walking, playing golf, playing volleyball, gardening, and cycling (Norton et al., 2010). ; Fortune et al., 2022). Therefore, emotional and mental health can be affected by a physical activity carried out over a long period which can have a positive effect on the physiological and psychological adaptation of the body. On this basis, the purpose of this study was to prove the relationship between physical activity and emotional mental health in housewives. We hypothesize that there is a positive relationship between physical activity and emotional-mental health in housewives.

## **2. Materials & methods**

This research is correlational with a cross-sectional study approach. A total of 35 women with criteria, namely being housewives, aged 20-30 years, living with their husbands, having children at least 2 years old, domiciled in Malang Regency, East Java, Indonesia voluntarily participated as respondents in this study by filling out and signing informed consent. Before participating in this study, all respondents had obtained information both verbally and in

writing about the research. The level of physical activity in this study was measured using the Global Physical Activity Questionnaire (GPAQ) and the level of mental-emotional health was measured using the Depression, Anxiety, and Stress Scales (DASS42). Measurements of the level of physical activity and the level of emotional and mental health were carried out simultaneously.

The data analysis technique used a statistical software packet for social science (SPSS) version 21.0 (SPSS Inc., Chicago, IL, USA). The Chi-Square test was applied to determine the relationship between the level of physical activity and the level of mental-emotional health. Data on the level of physical activity and the level of mental-emotional health are displayed in percentages. All statistical analyzes used the significance level ( $p \leq 0.01$ ).

### 3. Results

The frequency distribution of respondents based on their level of physical activity and mental-emotional health is shown in Table 1 and Table 2.

Table 1. Category of Housewife Physical Activity

No	Category of Physical Activity	Amount	Percentage
1	Low	9	25.71 %
2	Moderate	16	45.72 %
3	High	10	28.57 %
<b>Total</b>		<b>35</b>	<b>100 %</b>

Based on Table 1, shows that housewives who do moderate physical activity are 45.72% (16 people), low physical activity is 25.71% (9 people) and housewives who do high category physical activity are 28.57% (10 people).

Table 2. Categories of Housewife's Emotional Mental Health

No	Category of Reaction Speed	Amount	Percentage
1	Normal	16	45.72 %
2	Low	6	17.14 %
3	Moderate	7	20.00 %
4	High	6	17.14 %
<b>Total</b>		<b>35</b>	<b>100 %</b>

Based on Table 2, mental-emotional health are grouped into four categories, namely normal, mild, moderate, and severe. The results of the analysis showed that the average emotional mental health of housewives who had normal categories was 45.72% (16 people), light 17.14% (6 people), moderate 20.00% (7 people), and heavy 17.14% (6 people).

Table 3. Results of Analysis of the Relationship between Physical Activity and Emotional Mental Health

Parameter	Emotional Mental Health	
	Pearson Chi-Square	p-value
Physical Activity	55.575	0.000

Based on Table 3, the results of the Chi-Square test obtained  $p\text{-value} = 0.000$  or  $p \leq 0.001$ , so there is a significant relationship between physical activity and emotional mental health. The results obtained indicate that physical activity can control emotional mental health in housewives. This study shows that there is a significant relationship between physical activity and emotional mental health in housewives. The correlation coefficient from these results indicates a positive (+) direction, which means that the higher the physical activity, the better a person's emotional mental health. The correlation coefficient value obtained is 55.222 and is interpreted by the strength of the relationship at a strong level between the two variables.

#### 4. Discussion

This study aims to prove the relationship between physical activity and emotional mental health in housewives. The main finding in this study is the relationship between physical activity and emotional mental health in housewives. The correlation coefficient from these results shows the direction of a positive relationship. In line with the research of Szymczak et al. (2020) reported a relationship between physical activity and emotional mental health. Reinforced research results by Marcocin et al. (2022) showed that higher physical activity was associated with higher well-being, quality of life, and lower symptoms of depression, anxiety, and stress, regardless of age. Efforts to maintain mental health in self-accustoming by doing adequate and regular physical activity, when lazing or working beyond the ability result in emotional mental health disorders such as depression, anxiety, and stress, this occurs especially in housewives with all the influences from the environment outside and oneself. The research of Saravi et al. (2012) reported that there was no significant difference in the quality of life between working women and housewives. However, working women scored higher on the 36-item short-form survey (SF-36), especially on the role of emotional, vitality, and mental health.

Fitness is needed by everyone to carry out daily activities optimally with good body condition. One of the best ways to achieve good fitness is by doing physical activity or by exercising regularly (Rebar et al., 2017). Exercise is considered a planned, programmed, structured, and systematic physical activity with repetitive movements to maintain or improve physical health and fitness (Bull et al., 2016). Physical activity is a body movement, that works on muscles, requires more energy than rest, and has the benefits of maintaining weight, reducing the risk of suffering from diseases (mental health, cancer, and degenerative diseases), reducing the possibility of injury, tightening muscles and bones, and longer life expectancy (Kartika et al., 2013). Regular physical activity can affect the function of corticospinal stimulation and exercise flexibility in the motor cortex in one moderate or aerobic training session that requires intense or continuous exertion, rhythmic muscle movements, or requires flexibility, such as jogging, table tennis, swimming, playing with pets, cycling, playing music, brisk walking, lifting heavy luggage, doing housework (Chekroud, et al., 2018). Physical activity carried out for a long period can improve cognitive function and memory through

neuroplasticity and neuroprotection mechanisms, physiological adaptations that affect responses to body functions, improve brain performance, change responses to mental health disorders and stress, and increase cardiac performance adaptation.

Psychological well-being is characterized by satisfaction and happiness in life as an individual or as a person and in society. Satisfaction and happiness in doing sport or physical activity, with success for survival in terms of psychological conditions at a better level. Exercise is considered a planned, programmed, structured, and systematic physical activity with repetitive movements to maintain or improve health and fitness at a certain level of energy use (Lulic et al., 2017). Moderate-intensity physical activity requires a lot of energy by stimulating the performance of the heart, lungs, and muscles to work harder than usual, but habituation can train organs to function properly and be stronger. Moderate-intensity physical activity in leisure time has been shown to reduce mental health disorders (Teychenne et al., 2020).

Good sports are sports activities that are carried out with intensity regularly and continuously. Meanwhile, the submaximal in question is that there is no forcing of an individual's ability to exceed the limit of his ability, both in terms of load and intensity. Not only focused on physical health, this sport for health is also beneficial for the spiritual health and social life of the individual because apart from being safe, easy, and inexpensive, this sport can also be done en masse (Kandola et al., 2019). Emotional mental health is the ability to control one's emotions in overcoming threats faced by mental, physical, emotional, and spiritual human beings so that they can affect physical health. Normal stress is a natural reaction in the body that is beneficial because stress will increase a person's ability to cope with adversity. Homework and competition in the social environment, demands, and challenges in today's modern world become pressures and burdens of stress (tension) for housewives. Stressors that are too large to exceed the individual's endurance threshold can cause symptoms such as headaches, irritability, psychological and difficulty sleeping. Stress that has lasted a long time, the body will try to adapt so that pathological changes arise in patients (Rezaie et al., 2017). Regular physical activity becomes an effective primary and secondary preventive measure with beneficial effects, while awareness of how important physical activity is for health and prevention of chronic diseases, physical activity levels have not increased significantly and are often below the recommended threshold, increasing physical activity has become public health priorities, with national and international health organizations conducting mass media campaigns to communicate recommendations detailing desired threshold levels of physical activity (Yosika et al., 2020; Warren et al., 2010).

## 5. Conclusions

Based on the results of the study, it was concluded that there was a positive relationship between physical activity and emotional mental health in housewives. The higher the level of physical activity, the better the level of emotional mental health and vice versa. This research can be used as the basis for further research related to physical activity and emotional mental health. Further research is needed with respondents who have different professions by involving a larger number of respondents, comparing men and women, and adding research instruments to measure the level of physical health status, and mental health cellularly and molecularly.

**Conflicts of interest** – All authors declare that there is no conflict of interest.

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