## INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND ANALYSIS

ISSN(print): 2643-9840, ISSN(online): 2643-9875

Volume 06 Issue 07 July 2023

DOI: 10.47191/ijmra/v6-i7-06, Impact Factor: 7.022

Page No. 2873-2879

# Relationship between Age, Employment Status, and Availability of Sports Infrastructure on Motivation to Exercise in Yogyakarta State University Education Personnel



## Aprianisa Nur Fajrin<sup>1</sup>, Yudanto<sup>2</sup>, Oktaviarini Yahya Rahmadhanty<sup>3</sup>

<sup>1,2,3</sup>Department of Sport Science, Yogyakarta State University, Yogyakarta Indonesia

ABSTRACT: This research aims to determine: (1) the correlation between age and motivation for doing sports, (2) the correlation between the employment status and motivation for doing sports, (3) the correlation between the availability of sports facilities and motivation for doing sports, and (4) the correlation between age, employment status, and availability of sports facilities towards the motivation for doing sports. The type of this research was a correlational study with an ex post facto approach. The research population was the faculty staff (tendik) of Yogyakarta State University who were still actively working with a total of 775 people with a total sample of 194 people taken using the random sampling technique. The research instrument was a closed questionnaire for data collection on the availability of sports facilities with a total of 20 items and a Sport Motivation Scale with a total of 27 items. The instrument validity technique referred to the product moment correlation formula and reliability based on Cronbach's Alpha. The data analysis technique used multiple regression at a significant level of 0.05. The results show that: (1) there is no correlation between age and motivation for doing sports, (2) there is a correlation between employment status and motivation for doing sports, (3) there is a correlation between the availability of sports facilities towards the motivation for doing sports.

KEYWORDS: Age, Employment Status, Availability of Sports Facilities, Motivation for Doing Sports, UNY's Faculty Staff.

#### INTRODUCTION

Sport is all systematic activities to encourage, foster and develop physical, spiritual and social potential. Exercise is a necessity that every individual needs to increase body immunity. Besides that, there are many benefits that can be felt when doing sports, including exercise can prevent heart disease, diabetes, osteoporosis, cancer, obesity, and injury (Suandiana et al., 2021). Sports can also improve the quality of life that is planned with various healthy lifestyles (Zhou et al., 2020). Some of the functions of sports according to Wilkwerson and Dodder (Harsuki, 2003) namely emotional release, determining identity, social control, socialization, agent of change, collective spirit, and success. Exercise can also reduce anxiety and increase self-confidence and increase the ability to concentrate (Suandiana et al., 2021).

Sports activity can be defined as body movement produced by skeletal muscles and requires energy, besides that low physical activity is the main factor triggering the risk of chronic disease which is predicted to cause high mortality. (Kamaruddin, 2020). Various physical activities such as running, walking, working, playing, lifting weights and various other physical exercises. Physical activity is any body movement that increases energy and energy expenditure or burns calories (Pranata, 2020). Physical activity, the most popular health promotion strategy, shows great potential in reducing stress and mental health problems (Zhang et al., 2022). Involvement in sports activities has many benefits (such as improved physical health and reduced symptoms of depression or anxiety) and is associated with a variety of positive personality traits (Greitemeyer, 2022).

The COVID-19 pandemic in 2020 brought many changes to people's lives. All activities including study, work, worship, even sports are recommended at home, sports can be done outside the home or inside the home. The COVID-19 virus emphasizes everyone to keep their distance or comply with health protocols so that the impact can not occur directly (Suandiana et al., 2021). The Covid-19 pandemic that has occurred in several countries will continue until 2021 for an indefinite time limit. Vaccine injections have been carried out by almost all countries, including Indonesia, but people still have to comply with health protocols (Lasanas et al., 2021). Regular physical activity is a major health behavior from a public health perspective, because it has a tremendous impact

on health. Sports activities during the COVID-19 pandemic have increased because sport is considered to drive away boredom at home, increase immunity, fill free time, and increase energy in carrying out daily routines.

In the results of a preliminary study conducted by researchers in early 2021, which was still during the Covid-19 pandemic, it showed that most UNY employees rarely carried out sports activities either at home or in the workplace environment. This is due to the adaptation of new living habits with health protocols that must be obeyed. The successful implementation of education cannot be separated from the physical and spiritual health of its human resources. Taking into account the heavy duty of UNY officials/employees who demand prime health conditions, every UNY official/employee needs to maintain health, including by exercising regularly. Based on the Chancellor's Circular No. 10/SE/2021 concerning sports hours, Yogyakarta State University (UNY) has implemented a Physical Fitness Gymnastics program which is held every Friday morning before working hours. The main purpose of these activities is to maintain and improve the quality of health and endurance in order to support the productivity of the performance of UNY officials/employees.

In the preliminary study data through a questionnaire conducted on FIKK UNY students showed that less than 50% of FIKK students took part in gymnastics on Friday morning every Friday morning. This is what then makes the author want to know the motivation to exercise in FIKK students. In addition, according to FIKK staffing statistics, it can be seen that the age range of FIKK staff members is 25 to 53 years; FIKK staff work status is divided into two, namely PNS and Non-PNS with each number being 34 PNS and 38 Non-PNS; The average working hours of FIKK Tendik Employees for 5 days is 42 hours, with standard working hours of 8.5 hours per day.

Performance is one of the issues that is still the center of attention for organizational leaders and stakeholders. This is because performance affects the achievement of organizational goals that have been set. Performance is an achievement or result of an action taken by an employee based on the expertise he has in a particular situation(Wardoyo Putro & Nanda, 2021). Employee performance can be measured at high or low or good or bad. The result of an employee's performance depends on the factors that influence the person's performance. One of the factors considered to affect performance is age and employment status. Job status as the position of worker/employee in the organization(Julindrastuti & Karyadi, 2022). Furthermore, the position in question is whether the employee in the organization has a position as a PNS or a non-PNS employee.

The relationship between employee status and performance was also studied by(Permana & Wahyuni, 2020)who found a significant relationship. Adedeji J conducted research on government employees in Nigeria and found evidence that employee status has a significant effect on performance(Wardoyo Putro & Nanda, 2021). According to the theory of justice motivation presented by J. Stacy Adam states that a person will maintain a balance between what they contribute to the organization and what they get from the organization.(Diel et al., 2021). This means that non-PNS employees whose rights are lower than PNS employees will contribute less than PNS employees in an effort to maintain the balance of justice they receive.

According to Widiyatun(Moray et al., 2016) factors that influence human motivation to do work or activities are: 1) Physical factors and mental processes; 2) heredity, environment, and maturity or age factors; 3) One's intrinsic factor; 4) Facilities and infrastructure; 5) Situations and conditions; 6) Programs and activities; 7) Audio visual (media), etc. Motivation to exercise is influenced by internal factors and external factors (Bayupeace et al., 2022). Internal factors include the desire to grow and develop, express oneself, and hope. External factors include available facilities, facilities and infrastructure, training methods, training programs and the environment.

Moving on from the availability of sports facilities in an area, it is easier for people to use and utilize them in carrying out various sports activities according to their respective hobbies, needs and desires with the available sports facilities. However, if sports facilities are available in limited areas, the opportunity for people to perform or use sports facilities will also be limited, which will reduce their interest in and participation in sports activities. Thus the availability of sports facilities and infrastructure is very influential on a person's motivation in doing sports.

#### **METHODS**

This type of research is correlational research with an ex post facto approach with survey methods. Ex post facto research is research that aims to find causes that allow changes in behavior, symptoms or phenomena caused by an event, behavior or things that cause changes in the independent variables that have occurred as a whole. (Siyoto & Sodik, 2015). The type of data in this study is quantitative data. In this study, age, employment status, and the availability of sports infrastructure are the independent variables and the motivation to exercise is the dependent variable.

The population in this study were educational staff (tendik) at Yogyakarta State University who were still actively working with a total of 775 people. The sampling technique used Random Sampling with a total sample of 194 people. The working age range in this study was 17-65 years consisting of the categories of late adolescence, early adulthood, late adulthood, early elderly and late

elderly. (Arisandi, 2018). Meanwhile, the employment status variable is divided into two, namely PNS and Non PNS. The instrument for the availability of sports infrastructure was adopted from PP No. 16 of 2007 concerning Organizing Sports, article 89 paragraphs 2 and 3. The sports motivation instrument adapted the Sport Motivation Scale instrument from the Journal of Sport & Exercise Psychology, 17, 35-53 with the title Toward a New Measure of Instrinsic Motivation, Extrinsic Motivation, and Amotivation in Sports written by Luc G. Pelletier, Michelle Fortier, Robert J. Vallerand, Nathalie M. Briere, Kim M. Tuson and Marc R. Blais, 2016 by translating the original instrument into Indonesian (Pelletier et al., 2016).

#### **FINDINGS**

The analysis in this study is to use multiple regression analysis which aims to test the hypotheses that have been made, namely to find out the relationship of the independent variables (age, employment status and availability of sports infrastructure) to the dependent variable (exercise motivation) in a partial way (relationship between one independent variable and the dependent variable) and simultaneous (the relationship between all independent variables on the dependent variable). The following research hypotheses will be tested:

- 1. Ho: There is no relationship between age and motivation to exercise
  - Ha: There is a relationship between age and motivation to exercise
- 2. Ho: There is no relationship between work status and motivation to exercise
  - Ha: There is a relationship between work status and motivation to exercise
- 3. Ho: There is no relationship between the availability of sports facilities and the motivation to exercise Ha: There is a relationship between the availability of sports equipment and the motivation to exercise
- 4. Ho: There is no relationship between age, working hours, and the availability of sports infrastructure on the motivation to exercise

Ha: There is a relationship betweenage, working hours, and the availability of sports infrastructure on the motivation to exercise. Data processing and calculation of partial and simultaneous test statistics using the SPSS program with a significance level of 0.05 ( $\alpha = 0.05$ ) and a 95% confidence level with a total of 194 respondents.

The t test is used to see whether the independent variable has a significant effect on the dependent variable and to make a decision whether Ho or Ha is selected by calculating the significance value of the statistical results. (Sugiyono, 2012).

Table 1. Partial Multiple Regression Test Results
Coefficientsa

| Model |            | Unstandardized | d Coefficients | Standardized<br>Coefficients | t      | Sig.  |  |
|-------|------------|----------------|----------------|------------------------------|--------|-------|--|
|       |            | В              | std. Error     | Betas                        |        |       |  |
|       | (Constant) | 54,416         | 5,399          |                              | 10,078 | 0.000 |  |
| 1     | AGE        | -0.134         | 0.073          | -0.125                       | -1,823 | 0.070 |  |
| 1     | JOB STATUS | 6,000          | 1.426          | 0.282                        | 4,209  | 0.000 |  |
|       | SARPRAS OR | 1,296          | 0.178          | 0.457                        | 7,286  | 0.000 |  |

Based on the table above, the independent variable age has a significance value above 0.05, which means that hypothesis 1 has an answer that Ho is accepted and Ha is rejected. Then the variables of employment status and sports infrastructure have a significance value of less than 0.05, which means that hypotheses 2 and 3 have answers Ho is accepted and Ha is rejected. The F test is used to see the effect of the independent variables simultaneously on the dependent variable and to make a decision whether H0 or Ha is selected through calculations and the significance value(Sugiyono, 2012).

**Table 2. Simultaneous Multiple Regression Test Results** 

#### **ANOVA**a

| Model |            | Sum of Squares | df MeanSquare |          | F      | Sig.  |
|-------|------------|----------------|---------------|----------|--------|-------|
| 1     | Regression | 6275,630       | 3             | 2091,877 | 25,453 | .000b |
|       | residual   | 15615,117      | 190           | 82,185   |        |       |
|       | Total      | 21890,747      | 193           |          |        |       |

a. Dependent Variable: MOTIVATION OR

b. Predictors: (Constant), SARPRAS OR, EMPLOYMENT STATUS, AGE

Based on the table above, it can be seen that the significance value of the simultaneous test or test to find out the relationship between the independent variables simultaneously (age, employment status and availability of sports infrastructure) on the dependent variable (exercise motivation) is worth 0.000 or smaller than 0.05. This means that there is a relationship between the variables of age, employment status and the availability of sports infrastructure simultaneously on the motivation to exercise. Therefore, hypothesis 4 states that Ho is accepted and Ha is rejected.

To see the level of influence between the two variables, namely the independent variables (age, employment status and availability of sports infrastructure) on the dependent variable (exercise motivation) can be seen in the coefficient of determination table.

Table 3. The coefficient of determination R<sup>2</sup>

| _   |      |     |      |
|-----|------|-----|------|
| Sum | marv | mod | lels |

|     | •   | R     |          |   |       |       |    |     | Change Statistics |        |        |    |    |         |
|-----|-----|-------|----------|---|-------|-------|----|-----|-------------------|--------|--------|----|----|---------|
| Mod |     | Squar | Adjusted | R | std.  | Error | of | the | R                 | Square | FChan  | df | df | Sig.    |
| el  | R   | е     | Square   |   | Estin | nate  |    |     | Char              | nge    | ge     | 1  | 2  | FChange |
| 1   | .53 | 0.287 | 0.275    |   | 9,06  | 6     |    |     | 0.28              | 7      | 25,453 | 3  | 19 | 0.000   |
|     | 5a  |       |          |   |       |       |    |     |                   |        |        |    | 0  |         |

a. Predictors: (Constant), SARPRAS OR, EMPLOYMENT STATUS, AGE

Based on the table above, it can be seen that the coefficient of determination is based on the adjusted R square value of 0.287, which means that the value of the relationship between the independent variables (age, employment status and availability of sports infrastructure) to the dependent variable (exercise motivation) is 28%.

**Table 4. Effective Contribution and Relative Contribution** 

| VARIABLE   | <b>Effective Contribution</b> | Relative Contribution |
|------------|-------------------------------|-----------------------|
| Age        | 1%                            | 5%                    |
| Job status | 6%                            | 20%                   |
| Sarpras OR | 21%                           | 75%                   |
| AMOUNT     | 29%                           | 100%                  |

Based on the table above, it is known that the total effective contribution of all independent variables to the dependent variable is 29% with details of the variables age and motivation to exercise by 1%, employment status and motivation to exercise by 6%, and the availability of sports infrastructure and motivation to exercise by 21%. While the remaining 71% of the three variables above are influenced by other factors.

## **DISCUSSION**

Age as a factor influencing physical activity can be seen from the results of research by Muzamil et al. regarding age in terms of the sport of choice. Selection of the type of sport is influenced by a person's ability to age. As age increases, physical activity will also decrease (Muzamil & Martini, 2020). Regular physical exercise and sports activities with the right dose besides being beneficial physiologically increase muscle mass, help maintain the elasticity of blood vessels and blood pressure and reduce the work of the heart, increase the diffusion of oxygen from the lungs into the blood and maintain hormonal and reproductive functions (Antoni & Suharjana, 2019) (Juniarto & Subandi, 2022). Physical exercise activities can also reach mental aspects including being more confident, happy, feeling refreshed, more creative, reducing stress and tension, being more sociable and increasing spontaneity. (Mammen & Faulkner, 2013). Thus physical exercise activities have become a necessity for the purpose of improving one's health status and physical fitness.

Physical fitness is the body's ability to carry out activities without experiencing significant fatigue (November & Sugiyama, 2022). Someone will get a good level of fitness if they regularly do physical activity or exercise (Rauner et al., 2013). Physical activity carried out by humans will be closely related to quality of life, health, and well-being (Zhao & Chen, 2018). Conversely, if humans do not carry out physical activity according to their needs, they are likely to be easily infected with diseases due to sedentary (hypokinetic) conditions such as type 2 diabetes. (Taylor et al., 2013). Low levels of physical activity will increase the risk of obesity and many other chronic diseases including coronary heart disease, diabetes and colon cancer (Ogilvie et al., 2011). However, it cannot be avoided that a decrease in physical activity in general will occur in the elderly along with decreased muscle ability, the appearance of stiffness, and pain in the joints. (Oktriani et al., 2020).

Decreased health parameters such as decreased physical fitness, increased physical complaints, and increased BMI scores as a result of increasing age in the age range of 33-77 years(Tittlbach et al., 2017). The effect of age on physical fitness will be seen when a person is aged 11-18 years or during adolescence(Gakhar & Malik, 2017). From the discussion above, it means that the results of this study make new findings because they show a reality that is different from the results of previous studies. This can be influenced by other factors that are directly related to physical fitness such as an active lifestyle, a healthy lifestyle, and the type of physical activity carried out.(Ogilvie et al., 2011).

The influencing factor is employment status accompanied by a high income level which has a positive relationship/correlation with sedentary work. Financial conditions greatly affect sports participation (Zeng et al., 2019). Households with greater availability of financial resources will be able to spend their money on recreational needs, including the need to exercise. In contrast, families of low socio-economic status often neglect participation in sports, as they face a heavier financial burden (In Bartolomeo & Papa, 2019). Economic factors can play a role as one of the influential factors, for example when an economic crisis occurs it tends to increase a person's economic burden and increase psychological stress. This led to a more sedentary lifestyle. The economic crisis also affected the quality of a person's nutrition accompanied by a decrease in physical activity. Even so, various studies have shown different results.

One of the factors that influence sports motivation is environmental factors(*Participation in physical activity*Ty, 2009). Environmental factors, namely the existence of sports facilities and safety, are important factors that can affect sports activities(Abd-latif et al., 2012). The more sports facilities available, the easier it is for the community to use and utilize them for sports activities but conversely, the more limited the available sports facilities, the more limited the opportunities for the community to use and utilize for sports activities(Ferdinand et al., 2012). Other research states that the existence of sports facilities is believed to be related to motivation in exercising(Eriksson et al., 2012; Halonen et al., 2015; Limstrand & Rehrer, 2008; Ranchod et al., 2014)In particular, closer proximity to sports facilities was associated with high levels of physical activity and exercise(Addy et al., 2004).

In addition to the age factor, employment status and the availability of infrastructure that can support a person's success in carrying out exercise movements is the level of motivation he has. The amount of motivation that exists in a person will be influenced by the motives that exist in a person himself. This motive by itself will build great strength to carry out an activity that is being practiced, one of the motivations that is needed is the motivation to be healthy. If it is related to human life today, there is motivation in living a healthy lifestyle. It is known that an increasingly modern human life results in less physical activity being carried out. The large use of electronic and motorized devices adds to the lack of human activity at this time.

Exercising is believed to have several physiological benefits by doing it regularly and regularly, so that it can improve the working power of the heart, lungs, blood circulation, muscles and joints. (Di et al., 2013). By doing regular and regular sports activities can improve one's fitness and health level. When doing sports activities, it is necessary to pay attention to the duration and intensity of the exercise so that there are no mistakes when carrying out sports activities, core exercises ranging from 15 to 60 minutes aim to increase the functional capacity of the body, while high intensity exercises and short duration of exercises result in the body's response being the same as the intensity low training with a longer duration. Exercising regularly will certainly play a role in increasing bone mass and density so that the risk of joint disease can decrease(Lesmana, 2017).

The role of sports in human life is very important because through sports is part of an effort to improve the quality of life that is directed at physical, spiritual and mental fitness. This is also aimed at the formation of character, personality, discipline and high sportsmanship as well as increasing achievements that can generate national pride. At this time sports are not only used as a way to achievement, but sport has become a lifestyle. Awareness of a healthy lifestyle today is often found by people exercising in the morning and evening. The busyness that people have been through from early morning until late at night requires a new energy to carry out activities the next day. Besides that, they are susceptible to disease, so exercising is one way out to stay healthy and fit. In fact, it is often found that by exercising the body will return to health, fit, and gain ideal body weight.

### **CONCLUSION**

Based on the results of the research that has been done, it can be concluded that

- 1. There is no relationship between age and motivation to exercise in Yogyakarta State University educational staff with a p value of 0.070.
- 2. There is a relationship between employment status and motivation to exercise in Yogyakarta State University educational staff with a p value of 0.000.
- 3. There is a relationship between the availability of sports infrastructure and the motivation to exercise in Yogyakarta State University educational staff with a p value of 0.000.

4. There is a relationship between age, employment status, and the availability of sports infrastructure on the motivation to exercise in Yogyakarta State University educational staff with a p value of 0.000.

#### **REFERENCES**

- 1) Abd-latif, R., Mohd, M., & Omar-Fauzee, MS (2012). Influence of Physical Environment towards Leisure Time Physical Activity (LTPA) among Adolescents. Procedia Social and Behavioral Sciences, 38, 234–242. https://doi.org/10.1016/j.sbspro.2012.03.345
- 2) Addy, CL, Wilson, DK, Kirtland, KA, Ainsworth, BE, & Sharpe, P. (2004). Associations of Perceived Social and Physical Environmental Supports With Physical Activity and Walking Behavior. 94(3), 440–443.
- 3) Antoni, MS, & Suharjana, S. (2019). Android-based fitness and health applications: How are people's perceptions and interests? Android application in sports and health: How are society's perception and interest? 7(1), 34–42.
- 4) Arisandi, F. (2018). Factors Affecting the Productivity of Tapper Employees at PT. Bridgestone Sumatra Rubber Estate (Case Study: Dolok Batu Nanggar District, Simalungun Regency).
- 5) Bayupeace, CP, Sports, SI, Sports, FI, Surabaya, UN, Relations, A., Personnel, S., Christian, A., Krenadi, H., Puspita, ID, . J., Agung, S., Firdaus, MA, Pelletier, LG, Tuson, KM, Fortier, MS, Vallerand, RJ, Briére, NM, Blais, MR, Prasetyo, Y., ... Nofriansyah, N. (2022). No主観的健康感を中心とした在宅高齢者における 健康関連指標に関する共分散構造分析title. Journal of Sports Health, 5(2), 31–36. https://doi.org/10.17509/jtikor.v5i1.24895
- 6) In Bartolomeo, G., & Papa, S. (2019). The Effects of Physical Activity on Social Interactions: The Case of Trust and Trustworthiness. Journal of Sports Economics, 20(1), 50–71. https://doi.org/10.1177/1527002517717299
- 7) Di, K., Moewardi, R., Salim, AY, & Nurrohmah, A. (2013). No Title. 10(1).
- 8) Diel, K., Broeker, L., Raab, M., & Hofmann, W. (2021). Psychology of Sport & Exercise Motivational and emotional effects of social comparison in sports☆. Psychology of Sport & Exercise, 57(September 2020), 102048. https://doi.org/10.1016/j.psychsport.2021.102048
- 9) Eriksson, U., Arvidsson, D., & Sundquist, K. (2012). Availability of exercise facilities and physical activity in 2, 037 adults: cross-sectional results from the Swedish neighborhood and physical activity (SNAP) study. BMC Public Health, 12(1), 1. https://doi.org/10.1186/1471-2458-12-607
- 10) Ferdinand, AO, Sen, B., Rahurkar, S., Engler, S., & Menachemi, N. (2012). The Relationship Between Built Environments and Physical Activity: A Systematic Review. 102(10), 7–13. https://doi.org/10.2105/AJPH.2012.300740
- 11) Gakhar, I., & Malik, SL (2017). Physical Fitness: Age Change and sex Differences Among the Jats of Delhi Physical Fitness: Age Changes and Sex Differences Among the Jats of Delhi. 0073. https://doi.org/10.1080/09720073.1999.11890572
- 12) Greitemeyer, T. (2022). The dark side of sports: Personality, values, and athletic aggression. Acta Psychologica, 223, 103500. https://doi.org/10.1016/j.actpsy.2022.103500
- 13) Halonen, JI, Stenholm, S., Kivimäki, M., Pentti, J., Subramanian, S. V, Kawachi, I., & Vahtera, J. (2015). Is there a change in the availability of sports facilities associated with a change in physical activity? A prospective cohort study. Preventive Medicine, 73, 10–14. https://doi.org/10.1016/j.ypmed.2015.01.012
- 14) Harsuki, H. (2003). Recent Sports Developments. Education Horizon, 449.
- 15) Julindrastuti, D., & Karyadi, I. (2022). The Effect of Employment Status on Employee Performance and Job Satisfaction. Journal of Percussion, 2(2), 187–197.
- 16) Juniarto, M., & Subandi, OU (2022). Sports Education in an Effort to Improve the Fitness and Health of the People of Bekasi City, West Java Province. 20(01), 16–23.
- 17) Kamaruddin, I. (2020). Body Mass Index (BMI) on Cardiovascular Endurance. SPORTIVE: Journal Of Physical Education, Sport and Recreation, 3(2), 117. https://doi.org/10.26858/sportive.v3i2.17012
- 18) Lasanas, E., Garcia, C., Tabago, J., & Matampay, AP (2021). Municipal COVID-19 Epidemiological Response: Level of Satisfaction among Households in Esperanza, Sultan Kudarat. Indonesian Journal of Community and Special Needs Education, 1(2), 53–58. https://doi.org/10.17509/ijcsne.v1i2.33405
- 19) Lesmana, HS (2017). Exercise as a Preventive Effort for Early Osteoporosis. Journal of Sports Performance, 32–41.
- 20) Limstrand, T., & Rehrer, NJ (2008). Young people's use of sports facilities: A Norwegian study on physical activity. Nov. 2007, 452–459. https://doi.org/10.1177/1403494807088455
- 21) Mammen, G., & Faulkner, G. (2013). Physical Activity and the Prevention of Depression. American Journal of Preventive Medicine, 45(5), 649–657. https://doi.org/10.1016/j.amepre.2013.08.001

- 22) Moray, FA, Rattu, JAM, & Josephus, J. (2016). Factors Associated with Physical Activity in Pt. Bank Negara Indonesia (BNI) Manado Branch, 2015. Pharmacon, 5(1), 290–296.
- 23) Muzamil, MS, & Martini, RD (2020). Research article on the relationship between the level of physical activity and cognitive function in the elderly in Jati Village, East Padang District. 3(2), 202–205.
- 24) November, S., & Sugiyama, Y. (2022). Interaction Between Physical Fitness, Psychosocial, and Spiritual Aspects of Children in Indonesian Physical Education. Journal of Physical Education (Maringa), 33(1), 1–12. https://doi.org/10.4025/jphyseduc.v33i1.3306
- 25) Ogilvie, D., Lamb, KE, Ferguson, NS, & Ellaway, A. (2011). Health & Place Recreational physical activity facilities within walking and cycling distance: Sociospatial patterning of access in Scotland. Health & Place, 17(5), 1015–1022. https://doi.org/10.1016/j.healthplace.2011.07.003
- 26) Oktriani, S., Kusmaedi, N., Daniel Ray, HR, & Setiawan, A. (2020). Differences in Gender, Age, and Body Mass Index (BMI) Relationship with Physical Fitness in Elderly. Journal of Applied Sports Science, 5(1), 28–40. https://doi.org/10.17509/jtikor.v5i1.24895
- 27) Participation in physical activity. (2009).
- 28) Pelletier, LG, Tuson, KM, Fortier, MS, Vallerand, RJ, Briére, NM, & Blais, MR (2016). Toward a New Measure of Intrinsic Motivation, Extrinsic Motivation, and Amotivation in Sports: The Sport Motivation Scale (SMS). Journal of Sport and Exercise Psychology, 17(1), 35–53. https://doi.org/10.1123/jsep.17.1.35
- 29) Permana, E., & Wahyuni, DU (2020). The Influence of Employee Status and Work Environment on Employee Performance at Pt. Nugraha Ekakurir Line Surabaya Branch .... Journal of Science and ..., 2016. http://jurnalmahasiswa.stiesia.ac.id/index.php/jirm/article/view/3054
- 30) Pranata, DY (2020). Sports Activities Carried Out by the Community During the Covid-19 Pandemic in Banda City Based on Age. Altius: Journal of Sports and Health Sciences, 9(2), 32–38. https://doi.org/10.36706/altius.v9i2.12543
- 31) Ranchod, YK, Roux, AVD, Evenson, KR, Sánchez, BN, & Moore, K. (2014). Original Contribution Longitudinal Associations Between Neighborhood Recreational Facilities and Change in Recreational Physical Activity in the Multi-Ethnic Study of Atherosclerosis, 2000 2007. 179(3), 335–343. https://doi.org/10.1093/aje/kwt263
- 32) Rauner, A., Mess, F., & Woll, A. (2013). The relationship between physical activity, physical fitness and overweight in adolescents: a systematic review of studies published in or after 2000. 1–9.
- 33) Siyoto, S., & Sodik, A. (2015). Basic Research Methodology. In Basic Research Methodology. Literacy Media Publishing.
- 34) Suandiana, IGA, Artanayasa, IW, & Semarayasa, IK (2021). Motivation of Students to Exercise during the Covid-19 Pandemic. Indonesian Journal of Sport & Tourism, 3(2), 51. https://doi.org/10.23887/ijst.v3i2.35429
- 35) Sugiyono. (2012). Educational research methods include quantitative, qualitative, and R&D approaches. Alphabet.
- 36) Taylor, P., Gram, M., Dahl, R., Dela, F., & Dela, F. (2013). European Journal of Sport Science Physical inactivity and muscle oxidative capacity in humans. August, 37–41. https://doi.org/10.1080/17461391.2013.823466
- 37) Tittlbach, SA, Jekauc, D., Schmidt, SCE, Woll, A., Tittlbach, SA, Jekauc, D., Schmidt, SCE, & Woll, A. (2017). The relationship between physical activity, fitness, physical complaints and BMI in German adults results of a longitudinal study. 1391(July). https://doi.org/10.1080/17461391.2017.1347963
- 38) Wardoyo Putro, PU, & Nanda, R. (2021). THE EFFECT OF EMPLOYEE STATUS ON PERFORMANCE WITH COMPENSATION AS MODERATION (Study at PT. INKA). Widya Cipta: Secretarial and Management Journal, 5(1), 9–15. https://doi.org/10.31294/widyacipta.v5i1.9074
- 39) Zeng, N., Johnson, SL, Boles, RE, & Bellows, LL (2019). Social-ecological correlates of fundamental movement skills in young children. Journal of Sport and Health Science, 8(2), 122–129. https://doi.org/10.1016/j.jshs.2019.01.001
- 40) Zhang, X., Browning, MHEM, Luo, Y., & Li, H. (2022). Can sports cartoon watching in childhood promote adult physical activity and mental health? A pathway analysis in Chinese adults. Heliyon, 8(5), e09417. https://doi.org/10.1016/j.heliyon.2022.e09417
- 41) Zhao, M., & Chen, S. (2018). The Effects of Structured Physical Activity Program on Social Interaction a...: EBSCOhost. BioMed Research International, 2018, 1–14. http://web.b.ebscohost.com.lib-e2.lib.ttu.edu/ehost/pdfviewer/pdfviewer?vid=18&sid=ecc1a151-35e7-4601-b309-deac67d6d1b3%40pdc-v-sessmgr05
- 42) Zhou, Yang, & Wang. (2020). No主観的健康感を中心とした在宅高齢者における 健康関連指標に関する共分散構造分析title. file:///C:/Users/VERA/Downloads/ASKEP\_AGREGAT\_ANAK\_and\_REMAJA\_PRINT.docx, 21(1), 1–9.