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Quality of Life of Adolescents in City and Village Areas

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Abstract Various factors influence the quality of life of adolescents, including physical and psychological well-being, self-perception, autonomy, relationships with parents, home life, and lifestyle. Health and satisfaction with health status, personal appearance, and lifestyle are also important factors that influence the quality of life of adolescents. Apart from that, high fat mass and low physical activity are also important factors that influence teenagers' quality of life. This research used quantitative descriptive method, conducted by a survey of 408 respondents who are teenagers aged 14–21 years in the West Java province. Respondents were 306 teenagers from urban areas and 102 people from rural areas. The survey was conducted to analyze the quality of life of teenagers and see the impact of regional demographics (rural and urban) on the quality of life of teenagers. The results of this study show that the overall quality of life of teenagers in both rural and urban areas is in the high category. The analysis shows a significant difference in quality of life between teenagers in rural and urban areas with a significance value of 0.00; however, teenagers in rural areas have a better quality of life than teenagers in urban areas. Additionally, the study found that 3% of teens were obese, 32% were underweight, and 8% were overweight. To improve the quality of life of teenagers, both in cities and in rural areas, participation in sports is very important because it can significantly improve a person's quality of life, especially in terms of health.

Keywords Quality of Life, Teenagers, Health Sports, Physical Activity

1. Introduction

In today's society, the concept of quality of life plays an important role in assessing the well-being and progress of individuals and society [1]. Many factors contribute to quality of life, including physical health, mental well-being, social relationships, and access to basic needs and resources [2]. Understanding and measuring quality of life allow for a comprehensive evaluation of an individual's overall satisfaction and happiness, as well as identification of areas requiring improvement [3]. The study and measurement of quality of life have evolved over the years, considering its multidimensional nature and including

subjective well-being as an important component [4]–[6].

A number of studies have explored the quality of life in different contexts. Varaksina et al [7] carried out a comprehensive assessment of the quality of life of rural residents in the Kulundinsky district of the Altai Territory, noting improvements in both objective and subjective components. Fouad et al [8] focus on the quality of urban life in Nasr City, Egypt, especially as it relates to a road network reform project. Research by Nakova [9] highlights the similarities and differences in quality of life in the two countries, while a systematic review by Chang & Smith [10] emphasizes the importance of smart living and citizen participation in smart cities. These studies collectively underscore the multifaceted nature of quality of life and the need for a contextual approach to its assessment and improvement.

Quality of life conditions after COVID-19 recovery show a significant impact on physical, emotional, and social well-being [11], [12]. This is especially seen in persistent symptoms such as pain and discomfort, as well as interference in daily activities [13]. The presence of these symptoms, especially in the areas of mobility and pain, can cause a decrease in quality of life [14]. Factors such as age, employment status, and comorbidities can also influence the quality of life of recovered patients [15]. These findings highlight the need for ongoing support and rehabilitation programs for COVID-19 survivors to improve their quality of life.

The quality of life of adolescents is influenced by various factors, including physical and psychological well-being, self-perception, autonomy, parental relationships, and home life [16]. Research shows that girls tend to report a lower quality of life than boys, and older adolescents may also experience a poorer quality of life [17]. Socioeconomic factors, such as a low father's education and low material status in the family, are also associated with a low quality of life for adolescents [18]. Health and satisfaction with health status, personal appearance, and lifestyle are also important factors that influence the quality of life of adolescents [19]. Obesity and overweight impact the health-related quality of life of adolescents, and it was found that there is a significant reduction in physical well-being [20]. Lack of physical fitness in adolescents is associated with high fat mass and low physical activity [21]. Better supervision should be carried out with children and adolescents [22]. In contrast, [23] found that adults exercise less.

Based on the Environmental Performance Index (EPI), Indonesia ranks 133rd out of 178 countries with a score of 46.92, which indicates that the quality of the environment in Indonesia is still relatively low [24]. In the context of children with thalassemia, a study found that the average quality of life ranged from 50% to 67.2% [25]. For the elderly, a study found that the majority had a moderate level of quality of life without significant differences in terms of gender differences [26].

2. Methods

This research used quantitative descriptive method, conducted by a survey of 408 respondents who are teenagers aged 14–21 years in the West Java province, with 154 male respondents and 254 female respondents. Respondents were 306 teenagers from urban areas and 102 people from rural areas.

The physical education study program at the Indonesian Education University's faculty of sports education and health conducted this research, and the respondents gave their consent to participate by completing the consent form the author provided.

Instrument

The instrument used in this research is WHOQOL-BREF [27], [28], an instrument developed by the World Health Organization and translated into Indonesian by the team of researchers from the Ministry of Health. This instrument measures a person's quality of life and consists of 26 questions consisting of four dimensions, namely physical health, psychological health, social relationships, and environment.

Hypotheses and Data Analysis

In this study, the data were analyzed using descriptive statistics, which included body mass index (BMI) demographics, quality of life category analysis, dimensions of physical health, social relationships, psychology, and the environment, correlation tests to see the relationship of each dimension to life skills, as well as a comparative analysis of the quality of life of teenagers in villages and cities using an independent sample t-test, and data analysis was performed using SPSS version 16.0. The author believes that there is a significant difference in the quality of life of teenagers in urban and rural areas, and this is the hypothesis proposed in this research, namely: is there a significant difference in the quality of life of teenagers in urban and rural areas?

3. Results

The results of the questionnaire filled out regarding the respondents' BMI are shown in Figure 1. Analysis related to BMI in this study shows the following data: in urban areas, there are 4 obese teenagers, 14 are overweight, 51 are in the normal category, and no teenagers are underweight. While in rural areas, 7 people are in the obese category, 20 are overweight, 182 are normal, and 97 teenagers are in the underweight category.

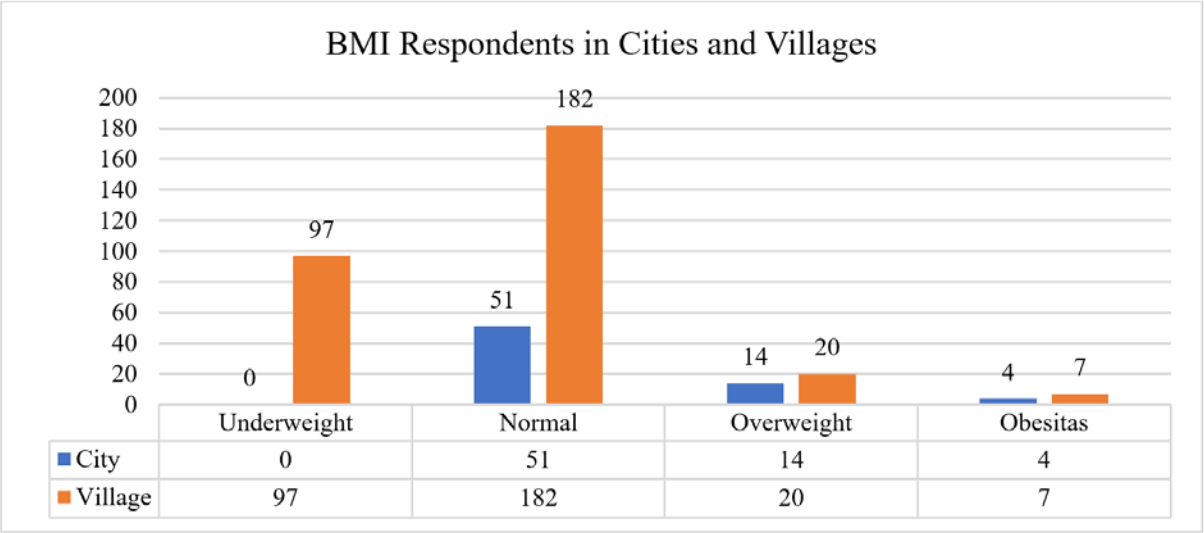

Figure 1. Demographics of Respondents' Body Mass Index (BMI)

The next analysis is to look at the categories of each quality of life dimension in rural areas as listed in Table 1. The physical health dimension with a mean of 3.18 and a st.dev of 0.54 is in the high category, the psychological dimension with a mean of 3.52 and a st.dev of 0.60 is in the high category, the social relationships dimension with a mean of 3.76 and a st.dev of 0.71 is in the high category, and the environment dimension with a mean of 3.58 and a st.dev of 0.60 is also in the high category. Meanwhile, the analysis of each dimension of quality of life in urban areas as listed in Table 2 shows that the physical health dimension with a mean of 3.04 and a st.dev 0.541 is in the high category, the psychological dimension with a mean of 3.35 and a st.dev of 0.61 is in the high category, the social dimension relationships with a mean of 3.43 and a st.dev of 0.75 are in the high category, and the environment dimension with a mean of 3.26 and a st.dev of 0.62 is also in the high category.

Table 1. Category for each dimension of quality of life in the city

Dimensions	Rural Areas		
	Mean	St.Dev	Category
Physical Health	3.18	0.54	High
Psychological	3.52	0.60	High
Social Relationships	3.76	0.71	High
Environment	3.58	0.60	High

Table 2. Category for each dimension of quality of life in the village

Dimensions	Urban Area		
	Mean	St.Dev	Category
Physical Health	3.04	0.51	High
Psychological	3.35	0.61	High
Social Relationships	3.43	0.76	High
Environment	3.26	0.62	High

The results of the regression analysis presented in Table 3 show a coefficient of determination (adjusted R square) of 0.991, which means that physical health, psychological, social relationships, and environmental variables as a whole have an influence of 99.1% on the quality of life.

In testing the research hypothesis, the analysis was carried out using the independent samples t-test. After being analyzed using SPSS, demographic data on quality of life in rural and urban areas were obtained (table 4) and independent samples were used to test the quality of life in rural and urban areas (table 5). Table 4 shows the number of respondents for urban areas, namely 306 people with a mean quality of life score of 81.41 and st.dev 12.66 and std. mean error 0.72, while the number of respondents in rural areas was 102 people with a mean score of 87.11 and st.dev 12.81 and std. mean error 1.27. The results of the independent sample t-test analysis show a significance value (sig. 2 tailed) of 0.000 < 0.05, which means there is a significant difference in the quality of life of teenagers in urban and rural areas.

Table 3. Regression Analysis of Quality of Life Dimensions

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.995a	.991	.991	1.248

a. Predictors: (Constant), Environtment, Social Relationships, Physical Health, Psychological

b. Dependent Variable: Quality Of Life

Table 4. Demographic Quality of Life Data in Rural and Urban Areas

	Regional Demography	N	Mean	Std. Deviation	Std. Error Mean
Quality of Life	Urban Area	306	81.41	12.66	.72
	Rural Areas	102	87.11	12.81	1.27

Table 5. Independent Samples Test Quality of Life in Rural and Urban Areas

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Quality of Life	Equal variances assumed	.056	.813	-3.927	406	.000
	Equal variances not assumed			-3.905	171.509	.000

4. Discussion

Body Mass Index Analysis

According to the results of the analysis of body mass index (BMI) data, 32% of teenagers were underweight. This is certainly an interesting finding in this research, considering the complexity of interpreting low BMI and the need for a deeper understanding of its implications. Research has shown that a low body mass index (BMI) is prevalent in certain populations, particularly among women in low- and middle-income countries [29]. This is often associated with poverty and low levels of education. However, body mass measures (BMI) cannot be used to measure malnutrition, as seen in Aboriginal Australians, who may have a low BMI but very high levels of subcutaneous fat [30]. Low muscle mass is another problem in older people, as a higher risk is associated with a BMI below 18.5 kg/m^2 [31]. Meanwhile, other data shows that 57% of teenagers have a normal BMI, 8% are overweight, and 3% are obese.

There are a number of variables that can cause teenagers to be overweight or obese. Adhianto & Soetjiningsih [32] found that parental energy intake and obesity were positively correlated, while energy expenditure and maternal education were inversely correlated with overweight and obesity. Kumari et al. [33]and Hafiar et al. [34], highlight how important it is to do household activities, eat healthy food, and exercise regularly to overcome obesity and overweight. Benedet & de Andrade [35] found that two factors that cause adolescent boys to become overweight and adolescent girls to become overweight are unbalanced and overweight maternal food consumption, as well as inactive travel to school. Al-Hazzaa et al [36] also emphasized that factors contributing to the prevalence of obesity among Saudi adolescents are poor eating habits and a lack of physical activity.

Analysis of Quality of Life Dimensions

Of the four dimensions of quality of life, namely physical health, psychological health, social relationships, and environment, over all it is in the high category for both rural and urban areas, but the social relationships dimension has the highest average score, namely 3.76 for rural areas and 3.43 for regional urban areas. The high social relations of Indonesian citizens can be caused by various factors [37]. One of the factors is the unity of the Indonesian nation, which is the main obligation to maintain the sovereignty and independence of the country. Indonesian people with different nationalities, religions, tribes, languages, and customs living in the territory of Indonesia are one complete and harmonious unit [38]. In addition, religion forms strong social relations between Indonesian citizens. Religious belief systems can be part and core of existing cultural values and encourage or mobilize the actions of community members to follow cultural values [39]. While the average physical health score for adolescents is the lowest, with a score of 3.04 for urban areas and 3.18 for rural areas, research has shown that a lack of physical activity is associated with various negative health behaviors and effects in adolescents.

According to Pate et al [40] and Vuori et al [41], a lack of physical activity is associated with risky health behaviors such as smoking, drug and alcohol use, and poor diet. Charlton et al [42] also found that factors such as lack of nutrition, obesity in the family, and poor academic performance were associated with adolescents' lack of fitness. Elinder et al [43] emphasized gender differences in

the relationship between physical activity and health, saying that low physical activity indicates that boys are less active and have low self-rated health. These findings show how important it is for teens to get more exercise to improve their overall health.

Environmental Influence on Quality of Life

Physical health, psychology, social relationships, and the environment as a whole have an influence of 99.1% on quality of life. Studies have shown that the environment and quality of life are closely related. Keleş [44] Lewis & Lyon [45] said that perceived quality of life is influenced by the local environment. Lewis also said that local research is important. Gobbens & van Assen [46] support this by showing that various environmental components correlate with various aspects of the quality of life of older people. Banzhaf et al [47] provide a conceptual framework for a comprehensive analysis of environmental quality and quality of life, emphasizing this ever-changing and complex relationship.

A good physical environment and residential environment can improve the quality of life, with a significant impact on facilities and security [48], [49]. Sherman et al [50] further support this by highlighting how important access to nature, reduced noise, and reduced crowding in healthcare settings are for children's health-related quality of life. This was expanded on by Mouratidis [51], who discovered seven pathways linking subjective well-being to the built environment and suggested urban planning methods to improve quality of life. Collectively, these studies emphasize how important the environment is for determining a person's quality of life.

Economic factors significantly influence quality of life, with recent studies examining this relationship in light of global economic challenges. The 2008 financial crisis prompted researchers to reassess quality of life indicators and methodologies to better address the needs of market recovery and individual well-being [52]. Education, health, and household size have been found to predict life satisfaction in South African cities, with education being the strongest predictor, while income showed no significant correlation [53]. Quality of life encompasses a range of factors beyond economic indicators, including employment, health, education, leisure, and overall life satisfaction [54]. Improving quality of life is considered a key factor in economic growth, with recent research focusing on strengthening strengths, weaknesses, and potential areas for improvement [55]. These studies highlight the complex relationship between economic factors and quality of life, highlighting the need for a comprehensive approach to development policy.

Quality of Life for Adolescents in Villages and Cities

The results of the analysis have shown that the quality of life of teenagers in urban and rural areas is in the high category (tables 1 and 2), but the independent sample t-test analysis shows that there is a significant difference in the quality of life between the two, as stated in Table 5. Teenagers in rural areas have a higher level of quality of life, and this is reinforced by what Boraita et al [56] stated: teenagers in urban areas do less physical activity and prefer to eat fast food. Apart from that, health-related quality of life is also related to age, gender, family size, head of family, physical activity, satisfaction with weight and sleep, and psychosocial well-being [49], [57]. Adolescents themselves view quality of life as a positive life cycle, with self-image, family relationships, and peer relationships being important factors [58]. These results highlight how important targeted interventions are for improving the quality of life of adolescents in both urban and rural settings.

Participating in sports can significantly improve a person's quality of life, especially those related to health [59]. Physical education, sports, and health can develop healthy living behaviors and improve the culture of healthy living, thereby contributing to the overall quality of life [60]. Additionally, people with physical disabilities experience these benefits; they experience improved quality of life, life satisfaction, and community reintegration through adaptive sports participation [61]. Additionally, the quality of sporting events also plays a role in improving participants' quality of life, with event satisfaction and purchase happiness influencing this relationship [62]. And what is more important, through sports activities, youth life skill values will also be developed, resulting in positive youth development [63].

5. Conclusions

The quality of life of teenagers is influenced by various factors; physical health, psychology, social relationships, and the environment are the main factors that influence the quality of life of teenagers. The results of this study show that the quality of life of teenagers as a whole is in the high category, both in rural and urban areas. Regional demographics have an impact on the quality of life; this is proven by the results of the analysis, which show that there is a significant difference in the quality of life between teenagers in villages and in cities with a significance value of 0.00, where the quality of life of teenagers in rural areas is better than in villages. In this research, it was also revealed that 32% of teenagers were underweight, 8% were overweight, and 3% were obese. Of course, this is a serious concern to be able to overcome this problem. Improving the quality of life certainly requires good cooperation between the government as the policymaker and the community as the main actor. Simple things that can be recommended to improve the quality of life are physical education, exercise, and health. It is hoped that these activities can improve healthy living behavior and a

healthier living culture, which in turn improves the overall quality of life. Especially to local governments to pay more attention to the quality of life of adolescents, considering the welfare and development of the digital era is increasingly widespread. This can cause people to tend to be less mobile.

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