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Exploring the Potential of Multiple Intelligences as an Effort to Improve Adolescent Health Holistically

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Abstract

The community services aim to identify multiple intelligences to optimize adolescent health holistically. Methods of implementation with surveys and education. The survey was conducted with multiple intelligence cards filled out by adolescents to obtain multiple intelligence data. Adolescents circled the answers according to the statements on the multiple intelligence cards that fit their circumstances. Score 1 if very inappropriate, score 2 if not very appropriate, score 3 if appropriate, and score 4 if very appropriate to the adolescent. Analysis using descriptive methods. This community service activity was carried out from April to June 2023. The location of the activity was a private junior high school in Ciparay District, Bandung Regency, West Java. The target of the activity was junior high school teenagers. The number of participants was 149 teenagers. The community services results show that the first and second highest rank is interpersonal intelligence. The third rank is kinesthetic intelligence. The conclusion is that most students have interpersonal intelligence. The school should map students according to their needs so it can optimize their potential to increase adolescent health holistically.

A. Introduction

Health is a state of physical, mental, spiritual and social well-being that enables everyone to live productively socially and economically (Ministry of Health of the Republic of Indonesia, 2009). Holistically healthy teenagers are physically, mentally, spiritually and socially healthy. Healthy and quality teenagers mean a quality future for the nation. Preparing teenagers to become superior human resources is a shared responsibility.

Adolescence is a critical stage of life in mental health. According to the Indonesia National Adolescent Mental Health Survey (I-NAMHS), one in three Indonesian teenagers have mental health problems and one in 20 teenagers have mental disorders. This shows that not only physical health is important but mental health should also be a concern for teenagers.

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These mental health problems in adolescents can be anticipated by knowing early on about strengths and weaknesses so as to help them to increase their self-confidence, recognize their interests and talents and direct them to the right path. One of them is by exploring multiple intelligences.

Multiple intelligences are various intelligences that each person has. Each child's intelligence is unique. A child can have different intelligence from another child. The philosophy of multiple intelligences is a way to understand intelligence through several dimensions (pluralized way to understanding intellect).

The theory of multiple intelligences was discovered in 1983 by Howard Gardner, a developmental psychologist and professor of education at Harvard University. According to Gardner, intelligence is not just about Intelligence Quotient (IQ). High IQ without productivity is not good intelligence. The emergence of this theory is a form of Gardner's anxiety that the existing theory of intelligence is no longer adequate so that a new theory is needed that is more relevant to the current context (Syarifah, 2019).

Public perception also assumes that a smart child is a child who gets high grades in school. Multiple intelligence is rarely discussed and tends to be ignored. A study states that parents' perception that logical mathematical intelligence still needs to be improved (Eminita & Astriyani, 2018). This shows that the assumption that intelligent children are only judged from their mathematics.

Multiple intelligences consist of kinesthetic, musical, interpersonal, intrapersonal, linguistic, logical mathematical, spatial and natural intelligences. Intelligence according to the paradigm of multiple intelligences as stated by Armstrong in Multiple Intelligences in the Classroom has three main components, namely: (1) The ability to solve problems that occur in everyday real life; (2) The ability to generate new problems that are faced to be solved; (3) The ability to create something or offer a service that will create appreciation in a person's culture (Sari & Oktariani, 2019).

In adolescent integrated health post services, multiple intelligence measurements are carried out at the first table when adolescents first arrive by filling out a multiple intelligence card form (Ministry of Health of the Republic of Indonesia, 2018). This activity is a screening for adolescents in the community in adolescent posyandu services.

This community service activity aims to identify multiple intelligences in adolescents as an effort to improve adolescent health holistically. The benefit of knowing multiple intelligences is to obtain information so that children can learn according to their interests, talents and needs so that they can optimize adolescent health holistically.

B. Methods

This community service activity was carried out from April to June 2023. The location of the activity was at a private junior high school in Ciparay District, Bandung Regency, West Java. The target of the activity was junior high school teenagers. Teenagers are residents in the age range of 10-18 years (Ministry of Health of the Republic of Indonesia, 2014). The number of participants was 149 teenagers.

The activity began with preparation, namely approaching and apperception to the school. This activity received approval from the school and permission from parents through informed consent given before the implementation of the activity. Furthermore, the implementation of the activity was carried out using the survey method and health education. At the end, the results of community service were disseminated to the school so that the data obtained could be useful for the school to help map students according to their needs.

The survey was conducted with multiple intelligence cards filled out by adolescents to obtain multiple intelligence data. Adolescents circled the answers according to the statements on the multiple intelligence cards that fit their circumstances. Score 1 if very inappropriate, score 2 if not very appropriate, score 3 if appropriate and score 4 if very appropriate to the adolescent. This questionnaire is used as an initial identification in adolescent posyandu activities (Ministry of Health of the Republic of Indonesia, 2018). There are 8 groups of statements, namely kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, linguistic intelligence, logical mathematical intelligence, spatial intelligence and natural intelligence. Each intelligence group consists of 9 statements. The assessment is done by adding up each intelligence group and getting the 3 largest scores which are the potential multiple intelligences possessed by adolescents.

Health education is carried out through counseling assisted by video media and e-booklets. The video and e-booklet in this activity are entitled Optimizing Adolescent Health Through Holistic Health Literacy. This media has received a creation registration letter from the Ministry of Law and Human Rights with the

numbers EC00202351859 (booklet) and EC00202351860 (video) dated July 5, 2023, first announced in Bandung on May 30, 2023.

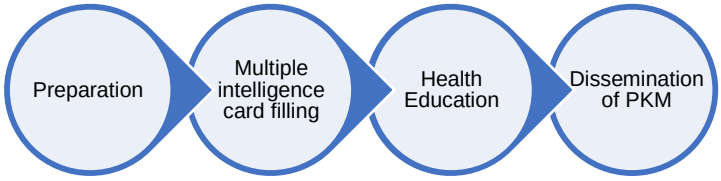

Figure 1. PKM Activity Flowchart

C. Result and Discussion

The description of the situation analysis of the junior high school where the community service activities are located in Ciparay District, Bandung Regency, West Java Province. The location is about 26 km from Bandung City. This district is the second largest in Bandung Regency. This school is located in the fostered area of Padjadjaran University (Unpad) by implementing community service on an ongoing basis. In accordance with Unpad's vision and mission, community service activities are expected to empower and make the community independent with the knowledge and technology produced.

Figure 2. Filling out the survey with Multiple Intelligence Cards

Figure 3. Providing Health Education

Figure 4. Interactive health education with quizzes and games

Figure 5. Community Service Team with junior high school teachers and students

Table 1. Characteristics of Junior High School Adolescents in Ciparay District, Bandung Regency in 2023

No	Characteristics	f	%
1	Gender		

No	Characteristics	f	%
	- Man	66	44.3
	- Woman	83	55.7
2	Economic Status		
	- Lower middle class	7	4.70
	- Average	123	82.55
	- Middle to upper	19	12.75
3	Teenage Activities		
	- Study	143	95.97
	- Study and Work	6	4.03

In table 1, it can be seen that the characteristics of adolescents are mostly female, 83 people (55.7%), have an average economic status of 123 people (82.55%) and only a small portion have learning and working activities, namely 6 people (4.03%).

Table 2. Description of Multiple Intelligences in Junior High School Adolescents in Ciparay District, Bandung Regency in 2023

No	Multiple Intelligences	Ranking 1 f(%)	Rank 2 f(%)	Rank 3 f(%)
1	Kinesthetic	7 (4.7%)	29 (19.46%)	27 (18.12%)
2	Music	13 (8.72%)	16 (10.74%)	16(10.74%)
3	Interpersonal	66 (44.3%)	32 (21.48%)	21(14.09%)
4	Intrapersonal	22 (14.77%)	29 (19.46%)	26(17.45%)
5	Linguistics	3 (2.01%)	11 (7.38%)	11(7.38%)
6	Mathematical Logic	5 (3.36%)	11 (7.38%)	15(10.07%)
7	Spatial	11 (7.38%)	7(4.7%)	13(8.72%)
8	Natural	22	14(9.4%)	20(13.42%)

In table 2, it can be seen that the description of multiple intelligences in ranking 1 and ranking 2 is mostly in interpersonal intelligence of 66 (44.3%) and 32 (21.48%). In ranking 3, most are in the category of kinesthetic intelligence, which is 27 (18.12%).

The target of this community service activity is teenagers of Islamic-based private junior high schools in Ciparay District, Bandung Regency. This school emphasizes Islamic values in daily learning. Multiple intelligences are in accordance with the Islamic view that every human being has the best nature or disposition. Human choices to explore their own character are natural tendencies. Multiple intelligences affirm that every human being is a perfect creature created by God (Sunenti et al., 2021). Intelligence is no longer interpreted singly in intellectual terms alone. Gardner's thinking presents an alternative vision and perspective on human intelligence, known as multiple intelligence (Fadilah, 2019).

Research with meta-analysis found that religiosity is positively correlated with multiple intelligences with a moderate relationship strength (r=0.41). The higher the increase in the religiosity variable, the higher the impact on increasing multiple intelligences. Religiosity in this case is related to spiritual intelligence (Karbono & Retnawati, 2021).

The results of community service show that most teenagers are female and most of them have multiple interpersonal intelligences. The results of a study on 112 teenagers in Oman found that the three highest multiple intelligences were interpersonal intelligence, mathematical logic and visual spatial intelligence. A significant difference was found that visual-spatial and intrapersonal intelligence were preferred by women. For this reason, it is necessary to classify students according to their intelligence to plan learning according to this classification. Multiple intelligences can be used to take into account student diversity and diversify the learning environment according to these differences in intelligence (Ali et al., 2021).

The results of a study in a public school in Turkey with adolescent subjects living in villages found that the three highest multiple intelligence scores were natural, visual/spatial and kinesthetic intelligence. This identification is expected to train students to recognize strengths and weaknesses so that they find the right way to develop their strengths and compensate for their weaknesses (Şener & Çokçalışkan, 2018).

The results of a study of 158 teenagers in Israel found that the superior class had a higher percentage of students with logical intelligence as the dominant intelligence compared to the regular class. Thus, it is very important to pay attention to multiple intelligences in predicting and showing student success (Yavich & Rotnitsky, 2020).

The results of research on multiple intelligences and their influence on learning styles state that among multiple intelligences there are three that are not dominant, namely visual spatial intelligence (spatial), body movement (kinesthetic) and music. The highest category is spiritual intelligence and the smallest category is natural intelligence. All dimensions of multiple intelligences have a dominant influence on learning styles (Hasanuddin, 2021).

Multiple intelligences such as logical mathematical, spatial, linguistic, intrapersonal, kinesthetic, interpersonal and natural are positively related to academic achievement. Multiple intelligences can also predict students' academic achievement (Ahvan & Pour, 2016).

Research with meta-analysis found that the application of multiple intelligence-based learning has a positive influence on academic success and student attitudes towards learning. Some of the influencing factors are education level, subjects, geographic area (Aydin, 2019).

The potential for intelligence in each teenager is different. The development of each teenager is different in the learning process that is in accordance with their developmental stage. A person is called intelligent when they can solve real problems, not just theories. The more skilled they are in solving life problems in various complex situations, the more intelligent they are (Rohani et al., 2022).

The following are examples of activities that can be carried out to explore and optimize intelligence, namely: (1)kinesthetic intelligence: dancing, sports; (2) musical intelligence: singing, playing musical instruments; (3) interpersonal intelligence: group work, conducting interviews; (4) intrapersonal intelligence: making scrapbooks, filling in daily journals; (5) linguistic intelligence: making reports, writing poetry (6) logical mathematical intelligence: conducting experiments, learning computer coding (7) spatial intelligence: painting, making YouTube video projects and (8) natural intelligence: plant care projects, caring for animals.

A method to stimulate the development of multiple intelligences in students can be done with the quantum teaching and learning method with the steps of Grow, Experience, Name, Demonstrate, Repeat and Celebrate (TANDUR). The hope is that the theory received will be encountered in real life and experienced by oneself so that it creates a deep impression. The education process should be able to accommodate each student's needs according to their uniqueness (Sa'diyah, 2017).

There are various advantages to paying attention to multiple intelligences in children. A study states that the application of multiple intelligence-based games can increase creativity in children by 37.2% (Indriasih & Jamaludin, 2017). Multiple intelligence-based learning can improve student learning outcomes. Before the implementation of multiple intelligence-based strategies, 46.67% of students completed the learning, increasing to 93.33% of students completed the learning (Fauzi et al., 2023).

Teachers, parents and the adolescent environment play a very important role in optimizing the abilities of adolescents through the identification of multiple intelligences. Providing information to parents to recognize and identify multiple intelligences makes them know and able to identify the intelligence possessed by their children (Sari & Oktariani, 2019). Teachers play a role in supporting students in fulfilling developmental tasks according to their age. Junior high school students spend a lot of time at school. Teachers and friends play a very big role, including helping students recognize themselves and how to develop themselves (Ministry of Women's Empowerment and Child Protection of the Republic of Indonesia, 2020).

Teacher strategy is very important in the effort to form multiple intelligences of their students. Each student has different intellectual abilities. This difference in intelligence requires teachers to take appropriate action. Strategy can be done by providing support and enthusiasm for learning to students. Teachers can understand how to develop and improve multiple intelligences through various efforts to create quality students by realizing the importance of developing the intelligence possessed by each student (Fauziah & Maknun, 2022). By optimizing multiple intelligences, this becomes an effort to improve adolescent health holistically

D. Conclusion

The conclusion of this community service is that most of the teenagers in this activity are female, have an average economy with activities such as studying. Multiple intelligences are mostly in the category of interpersonal intelligence. Recommendations for schoolscan use multiple intelligence data to identify the abilities of each student so that they know what treatment should be given to support students optimally. This can support adolescent health holistically.

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