

# Health checkup, fitness, and complementary therapy in Muntilan library and archives service, Magelang, Central Java

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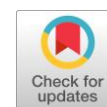
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## ABSTRACT

Muntilan is a sub-district in Magelang Regency, Central Java, Indonesia, located 10 km from Mungkid sub-district, 15 km from Magelang city, and 25 km from Yogyakarta city. Objective: This community service activity is carried out as a form of concern for improving the health status of the community. Methods: This activity uses the method of providing information through health checks, fitness, and complementary therapies. Result: This activity was attended by 151 people (71 people on 27 November 2019 and 80 people on 28 November 2019). The service team conducts health checks in the form of medical history, blood pressure checks, Temporary Blood Sugar, uric acid, height and weight checks, complementary therapies, health counseling, and fitness consultations. Impact: After the health and fitness checks are carried out, partners understand about each other's health and fitness conditions. In addition, couples can apply complementary therapy in the form of providing pressure points according to their respective conditions.



## KEYWORDS

Health checkup  
Fitness  
Complementary therapy



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## 1. Introduction

Muntilan is a sub-district in Magelang Regency, Central Java, Indonesia, located 10 km from Mungkid district, 15 km from Magelang city, and 25 km from Yogyakarta city. Muntilan is on the provincial route connecting Semarang city, Magelang city, and Yogyakarta city. Muntilan district borders Mungkid district in the west, Sawangan district in the north, Dukun district, Srumbung and Salam district in the east, and Borobudur and Ngluwar district in the south.

The residents of Muntilan from time to time have improved their health. This is supported by the existence of adequate facilities, facilities, and infrastructure. Residents have full awareness of the importance of health. The existence of hospitals, health centers, clinics, and other health service centers that help residents to check health and fitness problems, so that morbidity and mortality rates can be minimized.

Based on a letter from Muntilan Library and Archives Service Number 041/1629/17/2019 on 21st November 2019, our partners (Library and Archives Services' staff) submitted an application to carry out health checks, fitness, and complementary therapy services to maintain the health of Muntilan residents, staff of Muntilan Library and Archives Service in Magelang, Central Java. Based on this letter, the Faculty of Health Sciences, Universitas Muhammadiyah Magelang was moved to carry out community service activities.

The implementation of community service activities aims to find out what partners need. This community service activity is carried out as a form of concern for improving the health status of the community. This improvement in health status is carried out by understanding the importance of health, namely: promotive, preventive, curative and rehabilitative efforts. Promotive efforts are the first efforts in which residents take an active role in improving their health status. Preventive efforts are efforts to

prevent the occurrence of unwanted diseases and health problems. Curative efforts are more focused on treatment, while rehabilitative efforts are more focused on things that are recovery [1]–[3].

Efforts to improve health and fitness affect the readiness of health workers in providing professional services to the community in accordance with their main duties and functions [4], [5]. This thing will have an impact on public awareness in carrying out routine health checks [6]. Routine of health and fitness checks and a healthy lifestyle are very important to minimize morbidity and mortality [7]. The community needs information about the importance of maintaining health and fitness by minimizing the provision of pharmacological therapy and starting to switch to non-pharmacological therapies, namely using complementary therapies.

Based on the above background, the service team carried out health checks, fitness, complementary therapies in Muntilan Library and Archives Service, Magelang, Central Java.

## 2. Method

This activity was held on 27th – 28th November 2019 at the Muntilan Library and Archives Service, Magelang, Central Java by a team of lecturers, staff, and students of the Faculty of Health Sciences, Universitas Muhammadiyah Magelang. The targets of this activity are residents of Muntilan and staff of the Muntilan Library and Archives Service, Magelang, Central Java. This activity uses the method of providing information through health checks, fitness, and complementary therapies.

Our partners after conducting health and fitness checks, they understand about each other's health and fitness conditions. In addition, couples are able to apply complementary therapies in daily life in the form of applying pressure points according to their respective conditions.

## 3. Results and Discussion

This activity was attended by 151 people (71 people on 27th November 2019 and 80 people on 28th November 2019). The service team carried out health checks in the form of a health history, blood pressure checks, Temporary Blood Sugar, Uric Acid, height and weight checks, complementary therapy, health counseling, and fitness consultations.

The service team first took a history of the health of partners who checked their health in Muntilan Library and Archives Service, Magelang, Central Java. Anamnesis aims to collect data on partners' health and medical problems, so that they can identify the approximate diagnosis or medical problem faced by partners. In this anamnesis stage, the service team also asked about the identity of the partner in the form of name, age, address, and others. The health history activity can be seen in Fig. 1.



Fig. 1. Health History Anamnesis

This anamnesis is an interview activity between the service team as health workers and partners as patients. Anamnesis activities produce data or information about complaints and a history of illness suffered by partners as patients [8], [9]. After the service team took an anamnesis about the health condition and partners identity, the next step was to do a blood pressure check. The activity of checking blood pressure can be seen in Fig. 2.



**Fig. 2.** Blood Pressure Check

Blood pressure is a very important factor in the human circulatory system [10]. Changes in blood pressure (increase or decrease) affect the balance or homeostasis of the body [11]. Stable or normal blood pressure will form a permanent driving force in the flow of arteries, arterioles, capillaries, and veins [12]. The community service team, in addition to taking anamnesis and checking blood pressure, also checked Temporary Blood Sugar and uric acid to determine the health condition of partners. The activity of checking Temporary Blood Sugar and uric acid can be seen in Fig. 3.



**Fig. 3.** Examination of Temporary Blood Sugar and Uric Acid

Temporary Blood Sugar is an examination of the condition of blood sugar at that time. This examination is carried out by taking a sample of the partner's blood as a patient without fasting first, so that they can immediately find out blood sugar levels at that time. Blood sugar is sugar in the blood that comes from carbohydrates. This blood sugar is stored in the body in the form of glycogen in the liver and skeletal muscles. This blood sugar functions as calories that are used as energy during activities [13]–[15].

In addition to checking Temporary Blood Sugar, the service team also checked uric acid for partners. Uric acid examination is done to determine the level of uric acid in the blood or urine. Excessive uric acid in the body will form crystals in the joint area, causing joint inflammation or gout [16], [17]. After the service team checked Temporary Blood Sugar and uric acid, the next step was to do a height check. The height check activity can be seen in Fig. 4.



**Fig. 4.** Height Check

The service team in addition to taking a health history, checking blood pressure, checking Temporary Blood Sugar, uric acid, and height, the next step is to check the partner's weight. Weight check activities can be seen in Fig. 5.



Fig. 5. Weight Check

Height and weight are one of the elements of a medical examination (basic biometrics). Examination of height is one measure of growth that can be measured with a stasiometer. Partners are asked to stand upright without using footwear. While the weight check is carried out by measuring body mass using a weight scale [18].

In addition to health checks in the form of a medical history, blood pressure checks, Temporary Blood Sugar, uric acid, height and weight checks, the service team also provides complementary therapy to partners. This complementary therapy is the application of acupressure points to treat hypertension, diabetes mellitus, gout, rheumatoid arthritis, and other acupressure points according to the partner's condition. The form of complementary therapy in the form of acupressure point applications can be seen in Fig. 6.



Fig. 6. Complementary Therapy

Complementary therapy is a complementary therapy that is widely developed in the world of nursing [19]. One type of complementary therapy is acupressure. Acupressure is used to improve circulation and reduce pain. Smooth blood circulation in the legs can reduce ischemia, angiopathy, and diabetic neuropathy. After the series of examinations were carried out, the community service team also provided health education to partners according to their health conditions. Health education activities can be seen in Fig. 7.



Fig. 7. Health Counseling

Health education is the addition of knowledge through learning techniques or instructions aimed at changing partner behavior towards increasing awareness in health [20]. So that the end result of this health education is that partners are expected to behave in a healthy life.

In addition to health checks, the service team also conducts fitness checks in the form of checking body fat, water content, muscle mass, physical value, calorie needs, cell age, bone mass, and belly fat. The fitness check and consultation activities can be seen in Fig. 8.



Fig. 8. Fitness Consultation

Fitness is the body's capacity to carry out physical activities, both active and passive. Activities carried out by a person physiologically will affect the cardiorespiratory work system, hormones, and the number of calories or energy used. Body structure is important in maintaining workload balance. The degree of fitness describes how well the physical suitability and physical load are.

#### 4. Conclusion

This activity was held on 27th – 28th November 2019 in Muntilan Library and Archives Service, Magelang, Central Java and was attended by 151 people (71 people on 27th November 2019 and 80 people on 28th November 2019). The service team carried out health checks in the form of a health history, blood pressure checks, Temporary Blood Sugar, uric acid, height and weight checks, complementary therapy, health counseling, and fitness consultations. Partners after the health and fitness checks are carried out, they understand about their respective health and fitness conditions. In addition, partners are able to apply complementary therapy in the form of applying pressure points according to their respective conditions.

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