

## **SOCIAL PHARMACY INITIATION TO IMPROVE QUALITY OF LIFE AND HEALTH EDUCATION IN FISHERMAN VILLAGE KAMAL MUARA**

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### **Abstract**

Kamal Muara Sub-district, Penjarangan District, located in the coastal area of North Jakarta, is a community with a heterogeneous population in terms of ethnicity, culture, and occupation. Most of the residents work as fishermen and factory workers. Various health and environmental issues such as low awareness of personal hygiene and healthy eating habits were problems faced by coastal residents. This activity aims to provide health education, improve nutrition, and raise environmental awareness through a social pharmacy practice program. The methods used in this program are observation and field practice. The students participated in activities such as education on safe drug use, healthy exercise sessions, creative healthy fish cooking, recycling workshops, proper handwashing and tooth brushing techniques, and environmental cleaning. The results of this study show that awareness and knowledge of the importance of health in the community increased through a series of educational programs. The program also successfully promoted collaboration and mutual cooperation among residents with significant support from community leaders and academia. The positive impact of this program is expected to last and become part of the daily habits of the community.

**Keywords:** Environmental Awareness, Fishermen and Workers Community, Health Education, Social Pharmacy, Quality of Life

### **INTRODUCTION**

Kamal Muara Sub-district, located in the coastal area of North Jakarta with an area of 1,053 hectares and a population of approximately 18.539 people, is inhabited by a community with a diverse background in terms of ethnicity, culture, and occupation. Most locals are employed as factory workers and fishermen. (Badan Pusat Statistik Kota Jakarta Utara, 2019).

Numerous studies indicate that one of the areas most affected by poverty is fishing villages. Fishermen's poverty is driven by various factors, such as the use of outdated fishing technology and restricted access to financial resources (Ilyaza & Nasikh, 2022). A propensity for extravagance during times of abundant catch, a lack of concern for environmental

sustainability, and a negative or resistant attitude toward societal advancement—mostly brought on by ignorance and low educational attainment—all exacerbate this situation (Wekke & Cahaya, 2015).

To improve the living conditions of fishermen, underdeveloped fishing communities must strengthen their values to become essential to the development of coastal and marine areas and ensure that traditional coastal resource management is preserved and safeguarded. Kinship, mutual aid, cooperation, and trust are all forms of social capital that disadvantaged families use to survive alongside their family members. Utilizing local organizations that develop and thrive in rural areas has significantly improved the survival of underprivileged households. As a result, to empower fishermen in the village without relying on outside organizations, the government should prioritize and enhance local institutions. Fishermen in rural areas would benefit greatly from institutions that have grown and flourished within the community as social capital. (Cahaya, 2015).

The fact remains that fishermen's catch levels are still relatively low, resulting in a low income. Poverty in fishing villages despite finance and technology for fishermen, is also due to a lack of limited market access, and poor community participation in natural resource management. Rapid population growth, low educational attainment, subpar health, and inadequate public infrastructure in coastal areas are further contributing issues. When fishermen have access to a larger workforce, sufficient cash, and the capacity to use fishing technology properly, it is feasible that their catch may increase, leading to higher revenues (Ilyaza & Nasikh, 2022).

The characteristics of coastal communities show that the majority of the population relies on the fisheries sector as their primary source of livelihood. These communities face various challenges, particularly in the areas of health and the environment, including low education levels, limited awareness of the importance of maintaining health, and high risks of environmental issues such as pollution and coastal erosion. Furthermore, the proximity of these areas to industrial zones and the sea increases their vulnerability to sanitation problems and environmental pollution. Waste dumped into the sea can damage coral reefs, mangroves, and other coastal ecosystems. Excessive use of pesticides and agricultural chemicals can pollute water and harm biodiversity (Badan Pusat Statistik, 2023). The quality of the air we breathe daily has been adversely affected by the release of harmful gases and particles into the atmosphere as a result of increased industrial activity, transportation, and the use of fossil fuels. In addition to harming the environment, air pollution seriously endangers people's health. (Shetty et al., 2023).

The Social Pharmacy Practice program by Universitas Esa Unggul was initiated in the Kamal Muara Sub-district as a response to these challenges. Its primary goal is to provide education and interventions that emphasize enhancing social cohesion, environmental awareness, and health. Regarding the social aspect, this program emphasized enhancing social cohesiveness and strengthening community solidarity. This program aimed to raise public health awareness through managing waste, promoting personal hygiene, uplifting physical activity levels, and increasing understanding of nutrition, herbs, and diet. Nutrition plays a vital role in both the functioning of the immune system and the development and repair of body tissues (Ali et al., 2022). Herbs are commonly utilized to address a wide range of health

conditions (Hanani, 2021). Initiation from the leader or head of a project is needed to increase the active participation of residents (Kiss et al., 2014).

## **IMPLEMENTATION METHOD**

Direct observations and interviews conducted with residents serve as essential tools for data collection in research. Interviews, in particular, facilitate the acquisition of direct explanations through comprehensive interaction (Monday, 2020). This needs analysis was conducted in July 2024. The Social Pharmacy Practice then carried out along August through several programs such as (1) Personal Hygiene Education: Brushing Teeth and Handwashing Awareness Campaign; (2) Physical Health Activities: Healthy Exercise Program; (3) Environmental Health Monitoring: JUMANTIK Observation (Mosquito Larvae Monitoring Program); (4) Nutrition and Food Innovation: Healthy Fish Cooking Creations; (5) Community Health Services: Healthy Posyandu (Integrated Health Services Post); (6) Independence Day Special Events: Healthy Independence Day Celebrations; (7) Environmental Awareness Actions: Clean Environment Action Campaign; (8) Educational Workshops: Interactive Seminar and Recycling Workshop; (9) Health Promotion: Herbal Health Education themed "Indonesian Herbs as Natural Solutions for Healthy Breathing" and DAGUSIBU Principle (Get, Use, Save, Dispose) for Proper Medicine Use.

## **RESULTS AND DISCUSSION**

The Social Pharmacy Practice Program successfully attained several important results, which were held in Kamal Muara Sub-district, North Jakarta, from August 5 to August 23, 2024. August 8, 2024, Personal Hygiene Education: Brushing Teeth and Handwashing Awareness Campaign at SDN 01 Kamal Muara showed that children's knowledge and hygiene habits had improved (Figure 1). This activity's effectiveness is based on its impact on children's hygienic habits, although it was limited to a single school. (Figure 2).



**Figure 1. Demonstrating the Proper Handwashing Technique**



**Figure 2. Students' Enthusiasm in Practicing Handwashing Technique**

The Physical Health Activities: Healthy Exercise Program conducted at the Kamal Muara Sub-district Office field on August 9 and 16, 2024, also showed positive results. Community participation in physical activities increased, as evidenced by participatory observations that reflected high enthusiasm from the community (Figure 3). The strength of this activity lies in its contribution to promoting physical activity, although challenges such as weather conditions and inadequate facilities need to be addressed for program optimization.



**Figure 3. The Physical Health Activities: Healthy Exercise Program**

The Environmental Health Monitoring: JUMANTIK Observation (Mosquito Larvae Monitoring Program) which took place on August 9, 2024, in RW 004, successfully enhanced community knowledge about mosquito larvae prevention and the need for environmental cleanliness. According to observation methodologies and documentation, the program had a beneficial impact on the community's environmental consciousness (Figure 4). This activity's strength stems from its extensive coverage of environmental issues, while data management and coordination constraints remain significant impediments.



**Figure 4. Mosquito Larvae Inspection**

The Nutrition and Food Innovation: Healthy Fish Cooking Creations, held on August 14, 2024, successfully enhanced the skills of Rukun Warga 004 women in healthily processing fish and expanded their knowledge of the nutritional benefits of fish. Fish is an excellent source of protein, essential for growth, tissue repair, and immune system function (Ali et al., 2022). Participants improved their skills in cooking fish and developed a better understanding of its nutritional benefits. (Figure 5). Furthermore, this information was passed on to their family members. This activity's strengths lay in the participants' high enthusiasm and the effectiveness of group discussions in identifying and addressing challenges (Figure 6). The Healthy Fish Cooking Creation leaflet has been registered under the Copyright Registration Letter of the Ministry of Law and Human Rights with the application number and date: EC00202498197, September 3, 2024.



**Figure 5. Healthy Fish Cooking Creation Session**



**Figure 6. Empowering Women through Healthy Fish Cooking Creation Session**

The Community Health Services: Healthy Posyandu (Integrated Health Services Post) in collaboration with Primary Health Care, held on August 15, 2024, successfully conducted health check-ups for children aged 0-5 years and provided health education to parents. This activity directly offered accurate health data and increased parents' awareness of the importance of regular check-ups and proper child nutrition (Figure 7). The program's merits were the efficient health check-up process and the enhanced community trust in posyandu services. However, some parents lacked awareness of posyandu protocols, resulting in delays. Furthermore, time restrictions influenced the quality of interactions and health education. The implementation complexity was moderate, with difficulties in time coordination and communication.





**Figure 7. Children Health Check-ups and Education to Parents during Posyandu**

Independence Day Special Events: Healthy Independence Day Celebrations, held on August 17-18, 2024, achieved significant results. Using participatory observation as a data collection method, the event successfully raised public health awareness and strengthened solidarity among residents. Over two days, various competitions were held, including sack races, cracker-eating contests, tug-of-war, water balloon toss, climbing greased poles, and more, as well as a community walk (Figures 8&9).



**Figure 8. Independence Day Special Events: Cracker-eating Contests**



**Figure 9. Independence Day Special Events: Sack Races**

The program's strength lay in its success in directly involving residents and creating an atmosphere that encouraged healthy lifestyles through activities like the community walk (Figure 10). Regardless of the limitation on facilities, these activities fostered community solidarity, enhanced awareness of national pride, and promoted health and fitness.



**Figure 10. Independence Day Special Events: Community Walk and Carnival**

The Environmental Awareness Actions: Clean Environment Action Campaign conducted on Sunday, August 18, 2024, aimed to raise awareness and encourage residents' participation in maintaining environmental cleanliness. This activity successfully involved many residents and resulted in a cleaner and tidier environment. However, challenges were encountered, such as a lack of adequate equipment and some residents unaccustomed to such activities. Despite these challenges, the program was overall easy to implement with proper preparation and good coordination (Figure 11).



**Figure 11. Environmental Awareness Actions: Clean Environment Action Campaign**

The Educational Workshops: Interactive Seminar and Recycling Workshop, which took place on Monday, August 19, 2024, at SMPN 120 Jakarta, aimed to increase students' understanding of the value of recycling and environmental sustainability. The initiative encountered difficulties such as a restricted implementation time, while students required more time to completely comprehend the notion of recycling (Figure 12).



**Figure 12. The Educational Workshops: Interactive Seminar and Recycling Workshop**

The activity's complexity level was moderate, necessitating careful planning and efficient time management (Figure 13). Despite these obstacles, the curriculum successfully engaged students with an interactive and practical approach, increasing their inventiveness in repurposing wasted materials into useful objects.



**Figure 13. Students' Participation in Repurposing Wasted Materials**

The last event from the activities series was Health Promotion: Herbal Health Education themed "Indonesian Herbs as Natural Solutions for Healthy Breathing" and DAGUSIBU Principle (Get, Use, Save, Dispose) for Proper Medicine Use held on August 22, 2024. Increased industrial activity and transportation emissions have resulted in the discharge of hazardous chemicals and particles into the atmosphere, reducing the quality of air we breathe on a daily basis. Air pollution has a negative impact on both the environment and human health (Shetty et al., 2023). High levels of air pollution in the Kamal Muara area, caused by vehicle and industrial emissions, can raise the community's risk of developing respiratory disorders such as asthma, acute respiratory infections (ARI), acute cough, and bronchitis. As a result, the herbal medicine education program gives essential and relevant information to people of Rukun Warga 004, Kamal Muara Sub-district (Figure 14).



**Figure 14. Health Promotion: Indonesian Herbs as Natural Solutions for Healthy Breathing by dr. Afifah Kusuma Vardhani, M.Pd.Ked, M.Si (Herbal)**

Herbal plants are plants believed to contain various vitamins, minerals, and secondary metabolites. Their purpose is to help address various health complaints (Hanani, 2021). The speaker explained several herbal plants that can be used to prevent or alleviate symptoms of



cough and sore throat, such as betel leaf decoction. Betel leaf (*Piper betle L*) is a well-known plant in Indonesia and has long been used in traditional medicine. Active compounds found in betel leaf, such as chavicol, possess strong antibacterial and antifungal properties (Biswas et al., 2022). During the Covid-19 epidemic, the most commonly utilized traditional ingredients were Empon-Empon, which contains red ginger, turmeric, nutmeg, fragrant ginger, bay leaves, lemongrass, galangal, cinnamon, and cloves (Yanuar, Hasanah, Saputri, & Bustamam, 2023). Green chiretta (*Andrographis paniculata*) has also been used clinically to treat ARI (Seprina, 2022). Saga leaves (*Abrus precatorius*) contain chemicals such as abrine and glycyrrhizin, which have anti-inflammatory properties and help relieve respiratory irritation (Garaniya & Bapodra, 2014). Inhaling essential oil vapors helps alleviate cough symptoms and open airways. Essential oils also have antibacterial characteristics that can help treat respiratory infections (Horvath & Acs, 2015).

Despite the use of herbal medicines, including disease prevention and healthy lifestyle practices, this health promotion activity focused on enhancing residents' knowledge about basic health and the use of the DAGUSIBU (Get, Use, Store, and Dispose) medicine system. (Figure 15). DAGUSIBU (Dapatkan, Gunakan, Simpan, dan Buang) is the Family Medicine Awareness Movement program initiated by the Indonesian Pharmacists Association (Ikatan Apoteker Indonesia) to promote public understanding and awareness of the proper use of medications (PP IAI, 2014).



**Gambar 15. DAGUSIBU Principle (Get, Use, Save, Dispose) Lecture by Prof. Dr. Apt. Maksum Radji, M.Biomed**

## CONCLUSION

The implementation of the Social Pharmacy Practice by Esa Unggul University Jakarta, in collaboration with the Rukun Warga 004 Kamal Muara Sub-district, has been highly beneficial for the local community. It was carried out according to the plans and expectations of the residents, successfully achieving its goal of raising public awareness and knowledge about the importance of health through a series of educational programs. This program also fostered collaboration and cooperation among residents, with significant support from community leaders and academics. The positive impact of this program is expected to continue and become part of the daily habits of the local community.

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