
The Relationship Between the Level of Knowledge and Patterns of Use of Traditional Medicine As Self-Medication on Health Maintenance in the Kelurahan Cawang, East Jakarta

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Abstract

Many Indonesians use traditional medicine to maintain their health status. Self-medication is a common practice that many people do to overcome minor health problems before seeking professional medical help. The purpose of this study was to determine how well the residents of RW 11 Kelurahan Cawang East Jakarta know about traditional medicine and how to use it to maintain health. The research method was a cross-sectional questionnaire survey with an observational analytic design. In this study, a total of 147 participants were selected using a selective selection strategy, which is not a random sampling procedure. According to the data collected, most of the respondents were male (55.1%), the highest age range was 50-59 years old (33.3%), and the education level was high school (59.9%). The results showed that 76.2% (112 people) had a good level of knowledge in the use of traditional medicine. The majority of Cawang people have used traditional medicine as self-medication, classified as a good group of 78.9% (116 people). To maintain health in the use of traditional medicine is classified as a good group of 59.9% (88 people). The linear graph also shows there is a linear relationship between the extent of the Cawang community's knowledge of traditional medicine and the frequency with which they use it as self-medication to maintain health. There needs to be more emphasis on educating the community about the benefits of traditional medicine and how to use it safely and effectively.

Keywords: Traditional Medicine, Level of Knowledge, Self-medication Use of Traditional Medicine, Health Maintenance

INTRODUCTION

Traditional medicine continues to play an important role in promoting and maintaining health in developing countries. For chronic, degenerative conditions and cancer, the World Health Organization (WHO) also supports the use of traditional medicine for public health maintenance and disease prevention (Virhia J.,2022; Samudra N.E, et al, 2021). However, the popularity of traditional medicine as a preventive health effort has recently increased. The increasing use of traditional medicine in industrialized countries can be attributed to several causes, including the limitations of modern medicine in treating some diseases, higher life expectancy in an era of increasing prevalence of chronic diseases, and widespread access to knowledge about traditional medicine from around the world (Yadav N.,et al 2023; Putra, R.K., et al, 2019; Ismail, et al, 2015). Knowledge is one of the important factors in shaping a person's behavior. Indonesian people still have a limited understanding of traditional medicine and sometimes make the wrong assumption that the term "jamu", which refers to components produced in the past, includes all traditional medicines. People in Indonesia are still unfamiliar with traditional medicines such as those in the OHT (Standardized Herbal Medicine) and phytopharmaca groups (Samudra N.E, et al, 2021). According to the WHO (World Health Organization), sufficient information is needed to influence a person's behavior or actions due to their natural curiosity about their environment. In addition, health and fitness are related to how often a person uses drugs. Before checking themselves with a doctor, many people try to solve their health problems. Various reasons are used, such as saving time, saving money, and as first aid before going

to the hospital (Samudra N.E, et al, 2021; Putra, R.K., et al, 2019). Some Indonesian people believe that the use of natural products (herbs) can increase immunity.

Compounds in herbs can increase the immune system in the form of antibodies which have been proven by various studies. The support of the academic community for the industrialization of traditional medicine is a driving factor until it reaches the global market. Indonesia's strength amid global relations largely comes from the availability of the country's natural biological resources, one of which is herbal medicine, which can be an alternative traditional medicine in increasing the body's resistance (immunity) of the global community (Mustikasari D., et al, 2021; Syafei A., 2023; Aswad, et al 2019). In addition to improving immunity, conventional medicine practices to promote health and prevent disease. One option for exterior home landscaping is to grow a selection of traditional medicinal plants by considering the potential use of these plants by the community (Darsini et al 2019; Situmeang et al, 2021). In Indonesia, traditional medicine—such as jamu and herbal concoctions—has long been used as a self-care strategy. A national survey by the Ministry of Health (2018) noted that 44.2% of households used traditional medicine, up from 30.1% in 2013, especially in rural areas (70%) (Rahayu, et al, 2020). A study in Dieng, Central Java, reported that 50% of the community self-medicated at least once a month, and 14% of them used traditional medicine (Widayati, et al, 2021). One of the active responsibilities of the community in efforts to improve traditional health is the provision of quality independent health services through the use of traditional medicinal plants in the form of herbal medicine, Standardized Herbal Medicines (OHT), and Phytopharmaca. 6-7 Given this context, academics are interested in the importance of increasing public awareness about the safe and effective use of traditional medicines for self-medication in terms of improving health maintenance.

Several studies have shown a positive relationship between the level of knowledge and self-medication behavior: research at Gontor University showed a significant correlation between knowledge of traditional medicine and its use practices ($r=0.146$, $p=0.001$), as well as self-medication knowledge ($r=0.128$, $p=0.005$) (Islamanda, et al, 2024). A study in East Java on cough sufferers found that self-medication knowledge had a moderate correlation with behavioral patterns ($r=0.49$, $p<0.001$) (Netta, S., 2024). In Central Java, a community survey showed that 39.6% of respondents had sufficient knowledge about self-medication, 75% had good practices, and knowledge was significantly related to attitudes/practices (Yulianti T, et al, 2024). The study aimed to determine the relationship between the level of knowledge and patterns of use of traditional medicine as self-medication for health maintenance among the community in RW 11 Cawang, East Jakarta

RESEARCH METHODS

This study uses a quantitative research design with a cross-sectional approach. According to Notoatmodjo (2010), a cross-sectional study is an observational study that analyzes data from a population at a specific point in time. This design was chosen because it allows researchers to observe and analyze the relationship between respondents' level of knowledge and their patterns of traditional medicine use as self-medication at a single time without follow-up. The cross-sectional research design is research conducted with observations where the cause or risk and effect variables or cases that occur in the research object are measured or collected at the same time. In this study, researchers analyzed the relationship between knowledge and patterns of traditional medicine use as self-medication for health maintenance among the community of RW 11, Cawang Village, Kramat Jati District, East Jakarta City, Special Capital Region of Jakarta Province, which was carried out in February 2023. The population in this study were residents of Cawang Village, then with a non-random sampling technique using the Taro Yamane standard formula, a sample of 147 respondents was obtained who met the inclusion and exclusion criteria. The researcher conducted validity, reliability, and normality tests on the research questionnaire. For the analysis of data results, the Statistical Product and Service Solution (SPSS) version 25 program was used, with the Scatter-Plot linearity test.

RESULTS AND DISCUSSION

Table 1 is a presentation of respondent characteristics data based on age, gender and education. Based on Age, the data obtained Age 18-20 years there are 7 out of 147 respondents (4.76%); Age 21-29 years there are 41 out of 147 respondents (27.89%); Age 30-39 there are 14 out of 147 respondents (9.52%); Age 40-49 years there are 13 out of 147 respondents (8.84%); Age 50-59 years there are 49 out of 147 respondents (33.33%) and Age 60-65 years there are 23 out of 147 respondents (15.65%); Based on gender, data obtained showed that respondents were dominated by men with a total of 81 out of 147 respondents (55.1%) and women 66 out of 147 respondents (44.9%); Based on gender, data obtained that respondents were dominated by men with a total of 81 out of 147 respondents (55.1%) and women 66 out of 147 respondents (44.9%); Based on Education, data obtained that respondents mostly had high school education, namely 88 out of 147 respondents (59.9%), then junior high school with a total of 19 out of 147 respondents (12.9%); Elementary school with a total of 15 out of 147 respondents (10.2%); Bachelor's degree with a total of 14 out of 147 respondents (9.5%); Diploma Three as many as 6 out of 147 respondents (4.1%) and no school with a total of 5 out of 147 respondents (3.4%).

Table 1. Respondent Characteristics Based on Age, Gender, and Education

Characteristic	Frequency (N)	Percentage (%)
Age		
18-20 years	7	4.76
21-29 years	41	27.89
30-39 years	14	9.52
40-49 years	13	8.84
50-59 years	49	33.33
60-65 years	23	15.65
Gender		
Male	81	55.1
Female	66	44.9
Education		
No school	5	3.4
Elementary School	15	10.2
Primary School	19	12.9
High School	88	59.9
Diploma Three	6	4.1
Bachelor Degree	14	9.5

Table 2 Contains Data on Respondents' Knowledge of Traditional Medicine and How to Use It

Chategory	Frequency	Percentage
Respondents' Knowledge Level about Traditional Medicine		
Good	112	76.2
Enough	34	23.1
Less	1	0.7
Patterns of Use of Traditional Medicine as Self-Treatment		
Good	116	78.9
Enough	26	17.7
Less	5	3.4
Health Maintenance in the Use of Traditional Medicine		

Good	88	59.9
Less	59	40.1

Based on the table above, the results of the study show that 76.2% (112 people) have a good level of knowledge of traditional medicine, 23.1% (34 people) are in the sufficient category, and 0.7% (1 person) is in the poor category. Traditional medicine is herbal medicine made by combining different herbs. The people of Cawang District inherited the knowledge and skills needed to make this herbal concoction from their ancestors. Some people in Cawang mix their own traditional medicine to treat certain diseases or simply to maintain body health. From the results of the study, several people in Cawang stated that they often read and receive information based on information in print media or gadgets. That way, it will affect the level of community knowledge, which will increase with the information obtained (Jabbar, et al, 2017; Lau, et al, 2019)

This study is in line with research by Asmelashe et al., (2017) that the higher the knowledge about traditional medicine, the more frequency of use of traditional medicine is done correctly. Previously, a person's level of knowledge regarding medicines is very important because medicines not only cure illness but can also potentially cause complications if they are not used properly. When someone has good knowledge, people will use traditional medicine properly and plant traditional medicinal plants in their yards. However, if the level of public knowledge is not right about the use of traditional medicine, it will actually be dangerous.

Respondents' assessment of the pattern of use of traditional medicine as self-medication in Cawang Village RW 11, East Jakarta, can be seen in the pattern of use of traditional medicine as self-medication as much as 78.9% (116 people) in the good category, 17.7% (26 people) in the sufficient category, and 3.4% (5 people) in the less category.

Since traditional medicine is considered to have fewer side effects than contemporary medicine, it is often preferred as a means of health care. Indonesian society plays an important role in passing down knowledge about traditional medicine from one generation to the next. The use of traditional medicine and its treatment methods have been used to overcome their health problems for generations. In fact, the method of use and traditional treatment has been applied in modern times (Siregar, et al, 2020; Prasanti et al, 2018)

The Cawang community who already has a good level of knowledge about the efficacy and how to use traditional medicine can manage traditional medicinal plants independently and can use them in treatment, so that it is hoped that the principle of traditional medicine can be realized independently. In addition, traditional medicinal plants can be improved and developed into small and medium-sized businesses in the field of herbal medicines which will then be sold to the community as with traveling jamu gendong sellers. Thus, from the results of previous studies according to Kumar (2020) it is not only necessary to know the use of traditional medicine, but also to know how to process traditional medicinal plants properly.

Respondents' assessment of health maintenance in the use of traditional medicine in Cawang Village RW 11 East Jakarta can be seen that health maintenance in the use of traditional medicine is 59.9% (88 people) in the good category, and 40.1% (59 people) in the less category. Traditional herbal medicine, as defined by previous research conducted by Agustina (2020), is a plant that has medicinal properties and is recommended by WHO that the plant is included in herbal medicine to maintain public health. This is in line with the increasing awareness of the Cawang community to switch to traditional medicine to maintain their health. In Improvements in conventional medicine provide benefits for both treating and preventing disease. Traditional treatment efforts are in line with the health maintenance approach, which includes efforts to improve health, prevent disease, treat existing conditions, and restore health after disease has taken its life (Andayani, 2022)

From the results of this study, health maintenance in Traditional Medical Practice is almost universally considered beneficial. The Cawang community uses traditional medicine to maintain health because it is effective and has few side effects, is cheap, and is practical, which is the reason why the

Cawang community is more supportive of using traditional medicine. According to (Laksono, 2019) the acceptance of traditional medicine as a viable alternative treatment option can be influenced by the socio-cultural history of the community. Cawang residents are more likely to believe in traditional medicine if they hear from others who have the same goal of receiving affordable and high-quality health care by turning to traditional medicine rather than Western medicine

Bivariate Analysis

This data describes the relationship between the level of knowledge and patterns of traditional medicine use as self-medication for health maintenance in Cawang Village RW 11, East Jakarta. The description is as follows

1. Results of the Relationship between the Level of Knowledge of Traditional Medicine and Health Maintenance

Respondents' assessment of the level of knowledge of traditional medicine in Cawang Village RW 11, East Jakarta can be seen in the following graph:

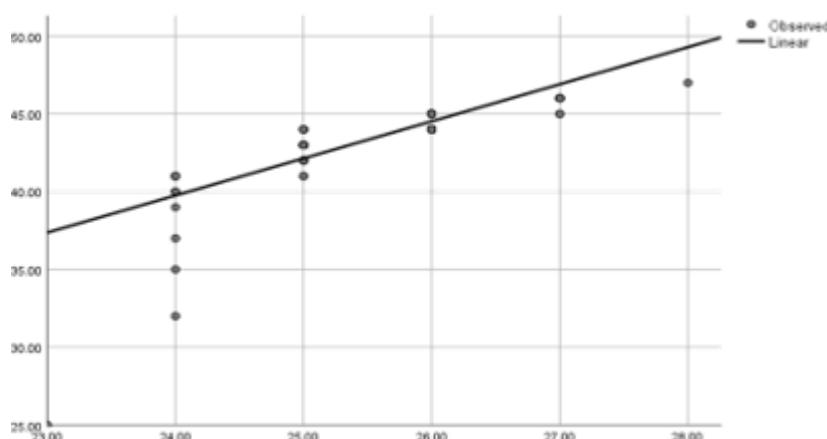


Figure 1. Graph of Traditional Medicine Knowledge Level in Cawang Village, RW 11, East Jakarta

Based on the linear graph above, the level of knowledge of traditional medicine for health maintenance. A curved line is drawn from left to right across the plot data points. This shows a strong positive linear relationship between the level of knowledge of traditional medicine and the health maintenance variable. This means that the higher the level of public knowledge about traditional medicine, the better the efforts to improve health maintenance are. The pattern of use of traditional medicine in health maintenance can be influenced by the level of knowledge about traditional medicine. According to previous research by Carter (2011), Knowledge grows along with educational attainment because more education means more access to more information. This is by the findings of research that the community has accepted to use traditional medicine as long as its members have the expertise to do so. However, according to previous research by Sari (2020), it states that if the community does not know the efficacy, dosage, and uses of traditional medicine, it can cause traditional medicine that be dangerous in maintaining health (Sari D.P. et al, 2020)

The community in Cawang Village, RW 11 East Jakarta, almost all have good knowledge about the community's understanding and dependence on traditional medicine as a modality of self-treatment has been deeply embedded in their lives and passed down from generation to generation. Factors such as a person's education, career, and age also play a role in determining the degree of their knowledge. Education also plays an important role in the development of a person's intelligence and changes in their behavior. According to (Puspitasari, 2022) Age factors can also affect traditional medicine. Evidence shows that users of traditional medicine are more likely to live to old age. This is by existing data, because respondents from the Cawang community who have more dominant parental figures choose traditional medicine over contemporary medicine because of greater accessibility. Cawang residents who are entering retirement age are also more likely to choose traditional medicine,

based on the long-standing belief that the negative consequences of using these methods are reduced. According to (Swastika, 2017), the emergence of old age is associated with an increase in life expectancy, which requires efforts to maintain and improve health to realize healthy, happy, efficient, and productive aging.

Education is one of the factors that affect a person's level of knowledge. With more education, there are more possibilities to learn, while low educational interest can affect their knowledge to do something new. But the statement of previous research is different from this research, it has been studied that the majority of respondents in the Cawang community with a high school education level also choose traditional medicine as self-medication, with the reason they choose this traditional medicine because besides being practical and easy to get, the cost of traditional medicine is quite affordable (Julung, et al, 2018)

2. Results of the Relationship between the Pattern of Use of Traditional Medicine as Self-Treatment and Health Maintenance

The following graph shows the frequency of respondents in Cawang Village RW 11, East Jakarta who use traditional medicine for self-treatment.

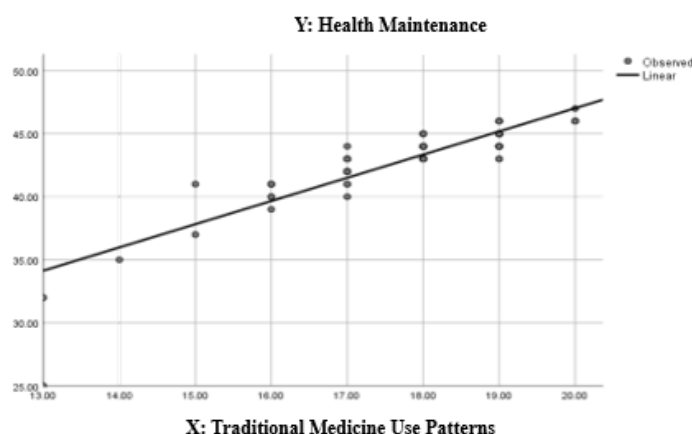


Figure 2. Graph of Traditional Medicine Use Patterns as Self-Treatment in Cawang Village RW 11 East Jakarta

The dots on the data plot are neatly lined up from bottom left to top right, indicating that those who use traditional medicine for self-medication tend to increase. This shows a positive linear correlation between the frequency of people self-medicating with conventional medicine and the variable that measures how well they maintain their health. Which means that the increasing self-medication pattern of using good and correct traditional medicine, the better the efforts to improve health maintenance. Hussain (2008) reported that people in his study population self-medicated with traditional medicine due to lack of time, lower costs, and fewer negative effects. Consistent with the findings of the study, then the reasons for the Cawang community to self-medicate were advice from older people, family or friends, the unavailability of transportation to go for treatment, the ability to manage symptoms of the disease themselves such as sore throat, joint pain, high blood pressure, aches and pains, and flu, and having adequate information. The use of conventional medicine regularly and effectively has an impact on health maintenance. The more skilled a community is in using and managing traditional medicine as self-medication, the better their health is, so there is a correlation between this pattern and the effectiveness of health maintenance. People believe that the effects of traditional medicine will last longer than contemporary medicine; therefore they are more likely to use it as self-medication. Traditional medicine has been shown to provide health benefits, such as increased energy levels. Traditional herbal medicines should be used more frequently because they contain active compounds that are safe and effective for human consumption. People have long turned to traditional medicine to treat various medical problems. Self-medication for various disease symptoms and general health maintenance should be improved for the population as a whole. WHO

recognizes the importance of self-medication in maintaining health; in addition, self-medication also requires adequate support, such as increasing general public knowledge.

CONCLUSION

From the results of the study, it can be concluded that: 1) The level of knowledge of the community in Cawang Village RW 11 East Jakarta regarding traditional medicine has good knowledge with 112 respondents; 2) The community in Cawang Village RW 11 East Jakarta often uses traditional medicine as self-medication to overcome their minor illnesses with 116 respondents; 3) There is a linear relationship between the level of knowledge and the pattern of using traditional medicine as self-medication for health maintenance in Cawang Village RW 11 East Jakarta.

REFERENCES

- Agustina, N., Hutaeruk, T. J. W., Sulistyaningrum, N., Yudhanto, S. M., Liza, N., Kusumaningrum, L., ... & Setyawan, A. D. (2022). Diversity of the medicinal plant in homegarden of local communities in the coastal area of Prigi Bay, Trenggalek, East Java, Indonesia. *Biodiversitas Journal of Biological Diversity*, 23(12).
- Andayani, Reti Puji, Jenta Puspariki, and Tiya Nurmala. "Persepsi masyarakat kabupaten purwakarta terhadap pengobatan tradisional berdasarkan kelompok usia." *Pharma Xplore: Jurnal Sains dan Ilmu Farmasi* 4.2 (2019).
- Asmelashe Gelayee, D., Binenga Mekonnen, G., & Asrade Atnafe, S. (2017). Practice and barriers towards provision of health promotion services among community pharmacists in Gondar, Northwest Ethiopia. *BioMed Research International*, 2017(1), 7873951.
- Aswad, Putri Anggraini, et al. "Pengetahuan dan perilaku swamedikasi oleh ibu-ibu di Kelurahan Tamansari Kota Bandung." *Jurnal Integrasi Kesehatan dan Sains* 1.2 (2019): 107-113.
- Darsini, Fahrurrozi Fahrurrozi, and Eko Agus Cahyono. "Pengetahuan; Artikel Review." *Jurnal Keperawatan* 12.1 (2019): 13-13.
- Islamanda, C. S., Gani, A. P., & Endarti, D. (2024). The relationship analysis of the traditional medicine knowledge level and self-medication knowledge level on the practice the use of traditional medicine at the University of Darussalam Gontor. *Pharmasipha: Pharmaceutical Journal of Islamic Pharmacy*, 8(2), 12-25.
- Ismail, I. (2015). Faktor Yang Mempengaruhi Keputusan Masyarakat Memilih Obat Tradisional Di Gampong Lam Ujong. *Idea Nursing Journal*, 6(1), 7-14.
- Jabbar, Asriullah, and Nurwati A. Musdalipah. "Studi Pengetahuan, Sikap dan Tindakan Terhadap Penggunaan Obat Tradisional Bagi Masyarakat di Desa Sabi-Sabila Kecamatan Mowewe Kabupaten Kolaka Timur." *Pharmauho* 3.1 (2017): 19-22.
- Julung, Hendrikus, et al. "Analisis sumber pengetahuan tradisional tanaman obat yang digunakan oleh masyarakat suku dayak desa." *Proceeding of Biology Education* 2.1 (2018): 67-74.
- Kumar, R. (2023). Nanotechnology in herbal medicine: Challenges and future perspectives. In *Nanotechnology in Herbal Medicine* (pp. 515-548). Woodhead Publishing.
- Laksono, D., Sugiharto, M., Fenty, D. N., Mufida Afreny, B., & Devy, S. R. (2019). The Relationship With Postnatal Care Of Reinforcing The Nite Tradition Norm" Bedapur" And "Wak Tuyuh" Medicine In The District Of Blang Pegayon, Gayo Lues District.
- Lau, Sulfiyana H. Ambo, Herman Herman, and M. Rahmat. "Studi Perbandingan Tingkat Pengetahuan Masyarakat Tentang Obat Herbal Dan Obat Sintetik Di Campagayya Kelurahan Panaikang Kota Makassar." *Jurnal Farmasi Sandi Karsa* 5.1 (2019): 33-37.

- Mustikasari, D., Kurniawan, A., & Rakhmawati, P. (2021). Penayadaran Masyarakat Akademik tentang Peranan Herbal dalam Peningkatan Sistem Imun. *Abdimasku: Jurnal Pengabdian Masyarakat*, 4(3), 285-291
- Prasanti, Ditha. "Health information of literation as prevention processes of hoax information in the use of traditional medicine in digital era (Literasi informasi kesehatan sebagai upaya pencegahan informasi hoax dalam penggunaan obat tradisional di era digital)." *Pekommas 3.1* (2018): 261724.
- Putra, R. K., Ratnasari, D., & Septiwi, R. E. (2019). Persepsi Masyarakat Terhadap Kinerja Lembaga Kesehatan pada Sektor Pelayanan Pengobatan Tradisional di Kabupaten Purwakarta. *Journal of Holistic and Health Sciences*, 3(1), 340464.
- Rahayu, Y. Y. S., Araki, T., & Rosleine, D. (2020). Factors affecting the use of herbal medicines in the universal health coverage system in Indonesia. *Journal of ethnopharmacology*, 260, 112974.
- Samudra, N. E., Untari, E. K., & Wahdaningsih, S. (2021). Hubungan tingkat pengetahuan dan pola penggunaan obat tradisional terhadap kualitas kesehatan masyarakat. *Jurnal Mahasiswa Farmasi Fakultas Kedokteran UNTAN*, 5(1).
- Sari, D. P., Rahayu, A., & Suryagama, D. (2020). Relationship between behavior of traditional medicines usage and health-related quality of life in Surabaya community in 2019. *Health Notions*, 4(2), 37-42.
- Siregar, R. S., Tanjung, A. F., Siregar, A. F., Salsabila, S., Bangun, I. H., & Mulya, M. O. (2020). Studi literatur tentang pemanfaatan tanaman obat tradisional. In *Scenario (Seminar of social sciences engineering and humaniora)* (pp. 385-391).
- Situmeang, Ivonne Ruth Vitamaya Oishi. "Hakikat Filsafat Ilmu dan Pendidikan dalam Kajian Filsafat Ilmu Pengetahuan." *IKRA-ITH HUMANIORA: Jurnal Sosial Dan Humaniora 5.1* (2021): 1-17.
- Swastika, S., Rahardjo, S. S., & Soemanto, R. B. (2017). Biopsychosocial Determinants of Quality of Life in the Elderly at Tresna Werdha Social Nursing Home, Yogyakarta. *Journal of Epidemiology and Public Health*, 2(1), 82-92.
- Syafei, A., & Sulistiyorini, D. (2023). Perilaku Konsumsi Suplemen dan Herbal untuk Pencegahan dan Pengobatan Infeksi COVID-19 pada Kelompok Dewasa Perkotaan. *Jurnal Ilmu Kesehatan Masyarakat*, 12(01), 79-88.
- Virhia, J. (2022). Contextualising health seeking behaviours for febrile illness: lived experiences of farmers in northern Tanzania. *Health & Place*, 73, 102710.
- Widayati, A., Candrasari, D. S., Mariana, L. J., & Veronica, V. (2021). Perceptions of Traditional Medicines for Self-Medication Among People in Dieng Plateau Central Java Province, Indonesia. *Jurnal Riset Kesehatan*, 10(2), 132-138.
- Yadav, N., Singh Chandel, S., Venkatachalam, T., & Fathima, S. N. (2023). Herbal medicine formulation, standardization, and commercialization challenges and sustainable strategies for improvement. In *Herbal medicine phytochemistry: applications and trends* (pp. 1-27). Cham: Springer International Publishing.
- Yulianti, T., & Fitri Muazizah, A. (2024). Community Knowledge, Attitude and Practice toward Self-Medication and Its Influencing Factor in Central Java: A Cross-Sectional Study.