



The Relationship between the Level of Knowledge about Cervical Cancer and Motivation for HPV Vaccination among Women of Reproductive Age

Siti Mardiasuti Rinawati^{1*}, Soraya², Valentina Dili Ariwati³, Mutiara Alif Augusaskiani¹, Hayatun Nufus⁴

¹ Diploma in Pharmacy, Genesis Medicare Health Polytechnic, Depok City, West Java, Indonesia

² Applied Bachelor's Degree in Medical Laboratory Technology, Genesis Medicare Health Polytechnic, Depok City, West Java, Indonesia

³ Applied Bachelor's Degree in Occupational Safety and Health, Genesis Medicare Health Polytechnic, Depok City, West Java, Indonesia

⁴ Undergraduate Program in Pharmacy, Universitas Indonesia Maju, South Jakarta, DKI Jakarta, Indonesia

ARTICLE INFO

Article Type:
Research

Article History:
Received: 31 October 2025
Accepted: 30 December 2025
Published: 31 December 2025

***Corresponding author**
Email:
siti.m.rinawati383@gmail.com

ORIGINAL ARTICLE

ABSTRACT

Cervical cancer is the second leading cause of death among women in Indonesia, with approximately 99% of cases caused by Human Papillomavirus (HPV) infection. Although HPV vaccination is effective in preventing this disease, its acceptance rate in the community remains relatively low. This study aimed to analyze the relationship between the level of knowledge about cervical cancer and motivation to undergo HPV vaccination among women of reproductive age at Prostasia Clinic. This study employed an analytical survey design with a cross-sectional approach. The sample consisted of 85 women of reproductive age at Prostasia Clinic, selected using purposive sampling techniques. Data were collected through validated questionnaires and analyzed using the Chi-Square statistical test. The results showed that the majority of respondents had a good level of knowledge (54.1%) and high motivation for HPV vaccination (61.2%). Bivariate analysis indicated a statistically significant relationship between knowledge level and motivation for HPV vaccination, with a p-value of 0.009 ($p < 0.05$). Adequate knowledge regarding the risks and prevention of cervical cancer was found to be a strong motivating factor for women to undergo vaccination. These findings highlight the urgency of continuous health education to increase HPV vaccination coverage in order to achieve the 2030 cervical cancer elimination target.

Keywords: Cervical Cancer, HPV Vaccination, Motivation, Knowledge, Women of Reproductive Age.

ABSTRAK

Kanker serviks merupakan penyebab kematian terbesar kedua bagi wanita di Indonesia, di mana 99% kasusnya disebabkan oleh infeksi Human Papillomavirus (HPV). Meskipun vaksinasi HPV efektif mencegah penyakit ini, tingkat penerimaannya di masyarakat masih tergolong rendah. Penelitian ini bertujuan untuk menganalisis hubungan antara tingkat pengetahuan tentang kanker serviks dengan motivasi melakukan vaksinasi HPV pada wanita usia reproduktif di Klinik Prostasia. Penelitian ini merupakan jenis penelitian survey analitik dengan menggunakan desain penelitian cross sectional. Sampel terdiri dari 85 responden wanita usia reproduktif di Klinik Prostasia yang dipilih menggunakan teknik purposive sampling. Data dikumpulkan melalui kuesioner yang telah divalidasi dan dianalisis menggunakan uji statistik Chi-Square. Hasil penelitian menunjukkan bahwa Sebagian besar responden memiliki tingkat pengetahuan yang baik (54,1%) dan motivasi vaksinasi yang tinggi (61,2%). Analisis bivariat menunjukkan adanya hubungan yang signifikan antara tingkat pengetahuan dengan motivasi vaksinasi HPV, dengan nilai p-value sebesar 0,009 ($p < 0,05$). Pengetahuan yang memadai mengenai risiko dan pencegahan kanker serviks terbukti menjadi faktor pendorong kuat bagi wanita untuk melakukan vaksinasi. Temuan ini memperkuat urgensi edukasi kesehatan yang berkelanjutan guna meningkatkan cakupan vaksinasi HPV untuk mencapai target eliminasi kanker serviks tahun 2030.

Kata Kunci: Kanker Serviks, Vaksinasi HPV, Motivasi, Pengetahuan, Wanita Usia Reproduksi.

INTRODUCTION

Cancer is the second leading cause of death worldwide, causing approximately 9.6 million deaths each year. According to Riskesdas data, the prevalence of tumors or cancer in Indonesia increased from 1.4 per 1,000 population in 2013 to 1.79 per 1,000 population in 2018. The prevalence of cancer in Banten Province reached 1.39% (Kementerian Kesehatan Republik Indonesia, 2018). Among the various types of cancer in Indonesia, cervical cancer is one of the most commonly found and ranks second after breast cancer. Cervical cancer can be detected early through Visual Inspection with Acetic Acid (VIA). In 2020, 50,171 individuals were found to be VIA-positive and 5,487 were suspected of having cervical cancer. In Banten Province, 106 individuals were VIA-positive and 88 were suspected of cervical cancer, while in South Tangerang City, 2 individuals were found to be VIA-positive (Kementerian Kesehatan Republik Indonesia, 2022).

Cervical cancer is one of the major health problems and a leading cause of death among women in Indonesia. Most cases of cervical cancer are caused by infection with the Human Papillomavirus (HPV). Primary prevention of cervical cancer is carried out through health promotion that emphasizes the importance of HPV vaccination. However, limited information regarding HPV vaccination remains one of the contributing factors to the low level of public knowledge about cervical cancer and its prevention efforts (Putri et al., 2024).

Cervical cancer develops through a relatively slow process of cell growth, beginning with a precancerous phase characterized by cellular changes as early indicators of malignancy. This condition has multidimensional impacts, not only reducing the quality of life of patients and their families but also imposing a significant financial burden on the government healthcare system. Therefore, strengthening preventive efforts through vaccination and optimizing early detection are strategic and urgent measures that must be implemented (Kementerian Kesehatan Republik Indonesia, 2017; Kementerian Kesehatan Republik Indonesia, 2018). One of the government programs for the early control and prevention of cervical cancer is the implementation of HPV vaccination.

Accelerating HPV vaccination is a key strategy for Indonesia to achieve the target of eliminating cervical cancer by 2030, in line with the WHO global vision that targets 90% vaccination coverage among adolescents. This acceleration is crucial, considering that the current vaccination rate has not kept pace with the increasing incidence and mortality rates of cervical cancer each year (Ayumaruti, & Anshari, 2023).

The low utilization of cervical cancer prevention services in low- and middle-income countries is influenced by various barriers at the individual, community, and health system levels. Individual barriers include limited knowledge and awareness of risk factors and cervical cancer prevention efforts, age, marital status, socioeconomic conditions, and religious and cultural beliefs. In addition, stigma related to reproductive health persists at the community level, while at the health system level, various constraints further limit access to and utilization of preventive services (Sinarum, & Sulistyowati, 2023). Limited knowledge, individual perceptions, motivation levels, and other factors play a major role in shaping public mindsets and attitudes, which ultimately influence decision-making behavior regarding HPV vaccination as an effort to reduce the risk of cervical cancer (Ayumaruti & Anshari, 2023).

Prostasia Clinic is one of the clinics in the Tangerang area that emphasizes the importance of disease prevention for the community, with the motto "Prevention is the Best Medication." Vaccination coverage at Prostasia Clinic from January to March 2024 was relatively good, including dengue vaccination (623 patients), influenza vaccination (848 patients), meningitis vaccination (263 patients), and pneumonia vaccination (249 patients). However, coverage for HPV vaccination remains suboptimal, with only 198 patients vaccinated. Therefore, the researchers selected Prostasia Clinic as the study location.

Based on the high incidence of cervical cancer, the important role of HPV vaccination as a primary preventive measure, and the still suboptimal HPV vaccination coverage among women of reproductive age, a comprehensive understanding of the factors influencing individual motivation to undergo vaccination is needed. The level of knowledge about cervical cancer is one important factor presumed to play a role in shaping motivation for HPV vaccination. Therefore, this study aims to analyze the relationship between the level of knowledge about cervical cancer

and motivation for HPV vaccination among women of reproductive age at Prostasia Clinic, as a basis for improving the effectiveness of health promotion efforts and HPV vaccination coverage.

RESEARCH METHODS

This study employed an analytic survey design with a cross-sectional approach. Validity and reliability testing were conducted through expert judgment by medical professionals working at Prostasia Clinic.

The study involved a population of women of reproductive age attending Prostasia Clinic in Tangerang, Banten, with data collection conducted from March to April 2024, comprising a total of 549 patients. The sampling technique used was purposive sampling, and the sample size was calculated using the Slovin formula. From the total population, a sample of 85 respondents was obtained. The sample consisted of women aged 15 to 45 years who met the inclusion criteria. The inclusion criteria were: willingness to participate by completing the questionnaire in full; registered as a patient at Prostasia Clinic; aged 15–45 years; and female. The exclusion criteria were: respondents who were ill; unable to communicate effectively; refused to participate in the study; or were healthcare workers.

The research instrument consisted of two questionnaires. The first questionnaire was designed to assess the respondents' level of knowledge regarding cervical cancer, while the second questionnaire aimed to measure respondents' motivation to receive HPV vaccination. Prior to completing the questionnaires, respondents were provided with informed consent as part of research ethics. Respondents had the right to decline participation if they were unwilling to complete the questionnaire.

Data were processed using SPSS version 27. Data analysis included univariate analysis to describe the distribution of respondent characteristics and bivariate analysis to assess the relationship between patients' knowledge of cervical cancer and their motivation to undergo HPV vaccination. The Chi-square test was used to determine statistical significance. If the p-value was $< \alpha$ (0.05), the null hypothesis (H_0) was rejected, indicating a significant relationship between knowledge and motivation at Prostasia Clinic, Tangerang–Banten. Conversely, if the p-value was $> \alpha$ (0.05), the null hypothesis was accepted.

RESULTS

Table 1. Characteristics of Respondents Based on Age, Education Level, and Occupation (n = 85).

Age (years)	Frequency (n)	Percentage (%)
15–20	10	11.8
21–25	24	28.2
26–30	34	40.0
31–35	5	5.9
36–40	1	1.2
41–45	11	12.9
Education Level		
Senior High School / Vocational School	29	34.1
Diploma (D3)	14	16.5
Higher Education	42	49.4
Occupation		
Student (School)	5	5.9
University Student	5	5.9
Civil Servant	4	4.7
Housewife	19	22.4
Private Employee	50	58.8
Self-Employed	2	2.4

Table 1 shows that the Nearly half of the respondents (40.0%) were aged 26–30 years, which falls within the reproductive age range. Almost half of the respondents (49.4%) had completed higher education, indicating that the study participants generally had an above-

average educational background. The majority of respondents (58.8%) were employed as private-sector employees. These respondent characteristics serve as supporting data for the discussion regarding the relationship between knowledge level and motivation for HPV vaccination among women of reproductive age.

Table 2. Distribution of Respondents' Knowledge Levels about Cervical Cancer (n = 85).

Knowledge Level	Frequency (n)	Percentage (%)
Good	46	54.1
Moderate	39	45.9
Total	85	100.0

Based on Table 2, which presents the frequency distribution of respondents' knowledge levels regarding cervical cancer at Prostasia Clinic, the majority of respondents had a good level of knowledge, with 46 respondents (54.1%). Meanwhile, 39 respondents (45.9%) had a moderate level of knowledge.

Table 3. Distribution of Respondents' Motivation for HPV Vaccination (n = 85).

Motivation Level	Frequency (n)	Percentage (%)
High	52	61.2
Moderate	33	38.8
Total	85	100.0

Based on Table 3, most respondents demonstrated a high level of motivation to undergo HPV vaccination (61.2%), while 33 respondents (38.8%) showed a moderate level of motivation.

Table 4. Bivariate Analysis of Knowledge Level and Motivation for HPV Vaccination (n = 85).

Knowledge Level	High Motivation	Moderate Motivation	Total
Good	34	12	46
Moderate	18	21	39
Total	52	33	85

Chi-square test: p = 0.009

Based on Table 4, the results of the Chi-square test showed a p-value of 0.009 ($p < 0.05$), indicating a statistically significant relationship between knowledge level and motivation to receive HPV vaccination.

DISCUSSION

Age reflects an individual's level of cognitive maturity. Age is also considered one of the risk factors in the development of cervical cancer (Serlianti & Fatimah, 2020). Women of reproductive age who possess good knowledge and positive attitudes are more likely to undergo early detection of cervical cancer, which indirectly reflects motivation toward preventive efforts, including HPV vaccination (Marbun et al., 2020). This finding indicates that age plays a role in influencing respondents' motivation to receive HPV vaccination.

The results of this study indicate that individuals aged 25–30 years tend to have higher levels of knowledge, as linguistic and cognitive abilities reach peak maturity during this age period. Awareness and understanding of cervical cancer also increase with age, making individuals more capable of seeking and processing health-related information, thereby facilitating early detection and prevention. In this study, the majority of respondents were aged 26–30 years (40%). This age group represents a mature reproductive stage in which individuals are more receptive to information related to reproductive health, including disease prevention through vaccination. In the context of this study, this refers to cervical cancer prevention through HPV vaccination.

Higher educational attainment and easier access to information contribute to better quality of life and improved health outcomes (Savitri, 2019). Broader knowledge and increased awareness of cervical cancer risks enhance the likelihood of early detection, thereby reducing disease progression. Individuals with higher educational backgrounds generally have a greater ability to absorb and comprehend health information effectively. In this study, nearly half of the

respondents had a higher education background (49.4%), indicating that respondents possessed a solid foundation for developing motivation toward HPV vaccination.

Although several studies do not explicitly explain the direct influence of educational level on vaccination motivation among women of reproductive age, existing research demonstrates that knowledge plays a significant role in motivating early detection and prevention of reproductive diseases. Previous studies have reported a significant positive correlation between knowledge level and motivation to undergo Pap smear screening among women of reproductive age, suggesting that better knowledge leads to higher motivation for preventive health behaviors (Adhyatma, 2019). These findings can be analogized to reproductive disease prevention through HPV vaccination. Higher educational attainment enhances reproductive health knowledge, which subsequently increases motivation to prevent cervical cancer through HPV vaccination.

Experience and knowledge can be acquired directly or indirectly through one's work environment. Working respondents generally have broader social interactions and access to information, which may influence their understanding of cervical cancer. The results showed that most respondents were private-sector employees (58.8%). Although no specific studies directly address the influence of occupation on HPV vaccination motivation, several studies have analyzed occupational factors related to motivation for maintaining reproductive health among women of reproductive age. These findings can be analogized to respondents' motivation to prevent cervical cancer through HPV vaccination.

Previous research indicates that knowledge, attitudes, family support, peer support, cervical cancer risk factors, and the presence of symptoms significantly influence early detection behavior among women who have received HPV vaccination (Suariyani & Dewi, 2019). Peer or coworker support within the workplace may serve as a motivating factor for women of reproductive age to undergo HPV vaccination.

The discussion above suggests that respondent characteristics, including age, education, and occupation, may directly or indirectly influence motivation for HPV vaccination among women of reproductive age. However, this study has limitations, as it did not analyze in depth the specific influence of respondent characteristics on vaccination motivation.

The findings regarding knowledge of cervical cancer indicate that 46 respondents (54.1%) had good knowledge, while 39 respondents (45.9%) had moderate knowledge. An individual's knowledge is influenced by age, educational level, and occupation. Increasing age enhances problem-solving abilities through broader life experiences, resulting in more diverse and comprehensive knowledge. From an educational perspective, higher educational attainment is associated with better understanding of HPV vaccination. Educational level influences respondents' ability to comprehend information related to cervical cancer, including its definition, signs, and symptoms (Dewi, 2022).

Previous studies have shown that knowledge of HPV and its infection significantly influences motivation to receive HPV vaccination among senior high school students (Rahmadini et al., 2024). In this study, most respondents were university graduates, which may explain their generally good level of knowledge. In addition, occupation also contributes to knowledge acquisition, as broader work environments facilitate discussion, information exchange, and collaborative problem-solving. The majority of respondents in this study worked as private employees, which likely contributed to their relatively good level of knowledge.

Motivation is an individual behavior that determines how quickly a person achieves goals and experiences satisfaction. Motivation plays a critical role in encouraging health-related actions, including cervical cancer prevention. The study results revealed that 52 respondents (61.2%) had high motivation to receive HPV vaccination, while 33 respondents (38.8%) had moderate motivation. Most respondents demonstrated high motivation because they understood the importance of HPV vaccination. However, some respondents exhibited moderate motivation due to limited awareness of the importance of vaccination. Additionally, financial considerations influenced motivation, as some respondents prioritized daily living expenses over HPV vaccination, which is perceived as relatively costly.

The findings of this study indicate a significant relationship between knowledge and motivation for HPV vaccination among women of reproductive age, as evidenced by a p-value of 0.009. Knowledge is a crucial component in shaping individual motivation. Adequate knowledge

stimulates motivation through cognitive processes such as reasoning and memory. Individuals with sufficient knowledge about cervical cancer are more inclined to engage in preventive health behaviors, including HPV vaccination (Wulan et al., 2020). Several previous studies have confirmed that low HPV vaccination uptake in ASEAN countries stems from accumulated barriers, including limited knowledge of vaccine efficacy, substantial financial constraints, and conflicting public trust dynamics (Varian et al., 2024).

The better the patient's knowledge of cervical cancer, the higher their motivation to receive HPV vaccination. This finding is consistent with previous research demonstrating a significant positive relationship between knowledge and motivation for HPV vaccination (Putri, 2024). Numerous studies have reported strong associations between knowledge, attitudes, and preventive health behaviors. One study reported a very strong correlation ($r = 0.859$, $p < 0.05$) between knowledge and attitudes among adolescent girls (Sagitarini, 2019). Furthermore, good knowledge significantly increased preventive behavior (8.3 times) and positive attitudes toward HPV vaccination (13.6 times) (Dethan, & Suariyani, 2017).

Other studies have demonstrated a relationship between knowledge and willingness to receive HPV vaccination, further analyzed through perceived susceptibility, perceived benefits, and perceived barriers to vaccination (Krisnadewani et al., 2021). Moreover, increasing knowledge about HPV vaccination should be supported through health promotion strategies utilizing digital media. Previous findings suggest that to improve knowledge, awareness, and HPV vaccine acceptance among female students, the government should enhance the use of social media for HPV vaccine promotion and expand free HPV vaccination programs in Indonesia (Krisnafi et al., 2024).

In conclusion, individuals with limited knowledge tend to demonstrate lower engagement in cervical cancer prevention behaviors, particularly HPV vaccination. Conversely, individuals with good knowledge exhibit higher awareness and motivation to prevent cervical cancer through HPV vaccination. A limitation of this study is that it did not further analyze the strength of the relationship between knowledge and motivation, as the analysis was limited to assessing the association between the two variables without measuring the magnitude of their relationship.

CONCLUSION

The results of this study indicate a significant relationship between patients' knowledge of cervical cancer and their motivation to undergo HPV vaccination at Prostasia Clinic, Tangerang–Banten. Further in-depth research is needed to explore other factors that influence the motivation of women of reproductive age to receive HPV vaccination, such as family support, support from healthcare professionals, the use of social media, and the presence of health policies. More extensive socialization and dissemination are also required regarding HPV vaccination policies for women of reproductive age. Future researchers are recommended to conduct studies on HPV vaccination motivation using health behavior theory–based approaches.

REFERENCES

- Adhyatma, A. A. (2019). Hubungan pengetahuan wanita usia subur dengan motivasi melakukan pemeriksaan PAP smear. *Jurnal Ilmiah Kesehatan*, 8(2), 92–99. <https://doi.org/10.35952/jik.v8i2.153>
- Ayumaruti, D., & Anshari, D. (2023). Tinjauan Sistematis terhadap Pengetahuan, Persepsi, Motivasi Masyarakat Tentang Vaksinasi HPV bagi Remaja Putri dan Wanita Usia Subur: Literature Review. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 6(4), 568-581. <https://doi.org/10.56338/mppki.v6i4.2988>
- Dewi, N. K. A. P. (2022). Hubungan tingkat pengetahuan remaja putri tentang kanker serviks dengan motivasi melakukan vaksinasi HPV di SMA Negeri 2 Denpasar. *Skripsi*. Denpasar, Indonesia.
- Dethan, C. M., & Suariyani, N. L. P. (2017). Pengetahuan dan sikap tentang perilaku vaksinasi HPV pada siswi SMA swasta. *Media Kesehatan Masyarakat Indonesia*, 13(2), 167–173. <https://doi.org/10.30597/mkmi.v13i2.1989>
- Kementerian Kesehatan Republik Indonesia. (2017). *Buletin kanker*. Jakarta, Indonesia: Kementerian Kesehatan Republik Indonesia.

- Kementerian Kesehatan Republik Indonesia. (2018). *Pedoman teknis pengendalian kanker payudara dan kanker leher rahim*. Jakarta, Indonesia: Kementerian Kesehatan Republik Indonesia.
- Kementerian Kesehatan Republik Indonesia. (2022). *Profil kesehatan Indonesia tahun 2021*. Jakarta, Indonesia: Kementerian Kesehatan Republik Indonesia.
- Krisnadewani, I. G. A. A., Yuliyatni, P. C. D., & Putri, W. C. W. S. (2021). Hubungan pengetahuan dan persepsi terhadap kesediaan melakukan vaksinasi human papillomavirus pada mahasiswi Fakultas Kedokteran Universitas Udayana. *E-Jurnal Medika Udayana*, 10(12), 63–69. <https://doi.org/10.24843/MU.2021.V10.i12.P12>
- Krisnafi, Z. A. P., Kurniawan, A., Ratih, S. P., & Wardani, H. E. (2024). Motivasi mahasiswi di Sidoarjo dalam melakukan vaksinasi human papilloma virus (HPV): Aplikasi model information–motivation–behavior skills. *Sport Science and Health*, 6(11), 1247–1257. <https://doi.org/10.17977/um062v6i112024p1247-1257>
- Marbun, R., Yovieta, Y., Oktavia, O., Daulay, N. A. F., Lubis, T. H., Ginting, L., Silaen, H., & Hasibuan, M. T. D. (2020). Hubungan pengetahuan dan sikap wanita usia subur dalam melakukan deteksi dini kanker serviks. *Indonesian Trust Health Journal*, 3(2), 381–386. <https://doi.org/10.37104/ithj.v3i2.64>
- Putri, A., Ragil, T. P., Afsy, N. A., Nisrina, Z. A. K., Natalia, T. M. H., Rizky, A. P. P., Audea, F. A., Annisa, N. I. S. P., R. S., I., Haidar, A. H., Majid, M. H., & Sulistyarini, A. (2024). Pengetahuan dan sikap tentang kanker serviks dan vaksinasi HPV pada mahasiswi Kampus C Universitas Airlangga. *Jurnal Farmasi Komunitas*, 11(2), 128–133. <https://doi.org/10.20473/jfk.v11i2.55442>
- Putri, S. P. (2024). Hubungan pengetahuan dan persepsi terhadap kesediaan vaksinasi HPV pada mahasiswi Fakultas Kesehatan Masyarakat Universitas Andalas tahun 2023. *Skripsi*. Universitas Andalas, Padang, Indonesia.
- Rahmadini, A. F., Zakiah, L., Yusnia, N., Rasyidin, F., & Willia, Y. (2024). Faktor-faktor yang berhubungan dengan kesediaan siswa-siswi untuk vaksinasi HPV (Human Papilloma Virus). *Journal of Midwifery Care*, 5(1), 28–34. <https://doi.org/10.34305/jmc.v5i1.1323>
- Sagitarini, P. N. (2019). Hubungan pengetahuan dan sikap remaja putri terhadap pencegahan kanker serviks melalui vaksinasi human papilloma virus (HPV). *Jurnal Kesehatan Medika Udayana*, 5(2), 60–67. <https://doi.org/10.47859/jmu.v5i2.152>
- Savitri, A. (2019). *Bijak mendidik anak di era milenial*. Yogyakarta: Ganesis.
- Serlianti, S., & Fatimah, B. (2020). Gambaran pengetahuan wanita usia subur tentang kanker serviks di Puskesmas Pasir Putih Kabupaten Manokwari tahun 2019. *Nursing Arts*, 13(2), 146–153. <https://doi.org/10.36741/jna.v13i2.97>
- Sinarum, A., & Sulistyowati, M. (2023). Literature review: Determinan perilaku pencegahan kanker serviks di negara berkembang. *Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal*, 13(2), 1–10.
- Suariyani, N. L. P., & Kusuma Dewi, M. I. (2019). Determinan perilaku deteksi dini kanker serviks pada pegawai di Pemerintah Kabupaten Badung. *Buletin Penelitian Kesehatan*, 47(2), 107–114. <https://doi.org/10.22435/bpk.v47i2.1246>
- Varian, A., Butsainah, P. R., Muhammad, F. N., & Robiana, M. (2024). Faktor-faktor yang memengaruhi penerimaan vaksin human papillomavirus (HPV) di negara-negara ASEAN: Literature review. *Syntax Literate: Jurnal Ilmiah Indonesia*, 9(4), 2892–2903. <https://doi.org/10.36418/syntax-literate.v9i4.14323>
- Wulan, R. N., Abidin, Z., & Retnowari, J. (2020). Relationship between multiparity and the types of histopathology of cervical cancer. *Indian Journal of Public Health Research & Development*, 11(3), 123–128.