

Original Article

A Cross-Sectional Study: The Relationship Between Knowledge and Attitudes of Doctors Regarding the Principle of Autonomy for Patients with Sexually Transmitted Infections



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ABSTRACT

Background: Ethical dilemmas in handling cases of Exclusively Transmitted Infections (STIs) are often experienced by doctors due to their knowledge and attitudes in respecting the patient's right to autonomy. The objective of the research is to study the practitioners' knowledge and attitudes concerning autonomy principles in facing STI patients.

Methods: This cross-sectional analytical study involved a total sampling of 32 general practitioners at Dustira Hospital. A researcher-designed, validated, and reliability-tested questionnaire was used to measure doctors' knowledge (independent variable) and attitudes (dependent variable) toward patient autonomy. Expert consultation and a pilot test at Cibabat Hospital were conducted to ensure instrument suitability. Data were analyzed using the Pearson correlation test, and ethical approval was obtained before the study..

Results: The results showed that 66% of general practitioners at Dustira Hospital had good knowledge of the principle of autonomy in managing patients with sexually transmitted infections (STIs). Doctors with over five years of experience demonstrated better knowledge (73%) compared to those with less experience (58.2%). Interestingly, among less experienced doctors who frequently treated STI patients, all had poor knowledge, whereas those who treated STI patients less often showed better knowledge (63%). Regarding attitudes, 53% of respondents had a good attitude toward autonomy-related ethical dilemmas. A greater proportion of doctors with more than five years of experience (60%) had good attitudes than those with less experience (47%). Notably, less experienced doctors who frequently managed STI cases showed entirely poor attitudes. Pearson correlation analysis indicated no significant relationship between knowledge and attitude ($p = 0.425$), with a very weak negative correlation ($r = -0.146$).

Conclusion: General practitioners with more work experience tend to demonstrate better knowledge and attitudes regarding patient autonomy in STI cases. However, practitioners with less than five years of experience who frequently treat STI patients exhibit both poor knowledge and unfavorable attitudes. A tendency toward empirical, experience-based decision-making over rational, principle-based reasoning may influence this.

Keywords: Attitude; Autonomy Principle; General Practitioners; Knowledge.

Implications for Practice:

- Training programs focusing on ethical decision-making and patient autonomy should be prioritized for early-career general practitioners.

Implications for Practice:

- Clinical mentorship may help junior practitioners improve their reasoning and approach when handling complex cases involving patient rights.
- Further studies are needed to explore the influence of cognitive and experiential factors in ethical competence among healthcare providers.

Introduction

Developments in the social and demographic fields have led to increased population migration, which has implications for changes in people's behavioral patterns. One significant impact of this migration is the increased risk of disease transmission, including Sexually Transmitted Infections (STIs). STIs are a global health problem that is receiving increasing attention, especially in developing countries ([Elendu et al., 2024](#)). According to a report by the Ministry of Health of the Republic of Indonesia, STIs are one of the urgent health challenges to be addressed, given their increasing prevalence in various community groups ([Unemo et al., 2017](#)).

Data from the World Health Organization (WHO) shows that the number of STIs, including gonorrhea and syphilis, continues to increase over time ([Barbaric et al., 2022](#)). In Indonesia, Hasan Sadikin Hospital reported several cases of gonorrhea within a certain period, reflecting the high rate of transmission of this disease ([Achdiat et al., 2025](#)). In addition, based on data obtained from the Ministry of Health, HIV cases in Indonesia are also quite high. These figures show that STIs, especially HIV, are a serious health problem that requires special attention from medical personnel.

In the context of treating STIs, doctors are often faced with complex ethical dilemmas ([Chandra et al., 2024](#)). One of the main dilemmas is between the principle of autonomy, which requires physicians to maintain patient confidentiality, and the principle of justice, which involves the protection of vulnerable groups from STI transmission ([Permatasari et al., 2024](#)). The

principle of autonomy, as defined by Beauchamp and Childress, emphasizes the importance of respecting the right of individuals to make decisions about their health and care. Within a bioethical framework, the principle of autonomy is a core focus because it relates directly to the patient's right to be adequately informed, understand the options available, and make decisions that are in line with their values and preferences.

One important aspect of the principle of autonomy is maintaining patient confidentiality, which is a fundamental component in building trust between patients and healthcare providers ([Delbon, 2018](#)). When patients feel that their personal information will be protected, they are more likely to share relevant and sensitive information, allowing physicians to provide better and more appropriate care. This is especially important given the stigma that is often attached to STI patients, which can prevent them from seeking necessary care. Therefore, a good understanding of the principle of autonomy and physicians' attitudes toward STI patients is essential in clinical practice ([Medina-Perucha et al., 2020](#)).

Although there has been much research on STIs and their management, there is still a gap in understanding the relationship between physicians' knowledge and attitudes toward the principle of patient autonomy. Research by Tegegne et al. showed that doctors' knowledge of STIs significantly influenced their attitudes in maintaining patient confidentiality ([Tegegne et al., 2022](#)). Another study by [Pratiwi et al. \(2023\)](#) found that doctors who had better knowledge of medical ethics tended to have more positive attitudes

towards the principle of patient autonomy. However, research by [Shrestha et al. \(2021\)](#) revealed that medical ethics training can improve doctors' knowledge and attitudes towards patient autonomy, but many doctors have not received adequate training.

This gap indicates the need for further research to understand how doctors' knowledge can influence their attitudes in treating STI patients. Therefore, this study aims to investigate the relationship between doctors' knowledge and attitudes regarding the principle of autonomy towards STI patients at Dustira Hospital. By understanding this relationship, it is hoped that it can provide better insight into the development of more ethical health policies and medical practices. This study is also expected to give recommendations for the training and education of doctors in dealing with ethical challenges that arise in treating STI patients. Thus, this study not only contributes to the development of science in the health sector but also seeks to improve the quality of health services for STI patients. It is hoped that the results of this study can be a reference for medical personnel and policymakers in formulating more effective strategies in handling STIs and protecting patient rights.

Methods

Study Design

This research employed a cross-sectional analytical design aimed at examining the relationship between general practitioners' knowledge and attitudes regarding the principle of autonomy in managing patients with sexually transmitted infections (STIs). Data were collected at a single point in time and analyzed to determine the correlation between the two variables.

Participants

The study involved 32 general practitioners working at Dustira Hospital. Total sampling was used, meaning all eligible general practitioners at the hospital were included. The inclusion criteria were active practicing doctors at the hospital. Doctors who were on leave or unwilling to participate were excluded from the study.

Instruments

The main research instrument was a self-designed questionnaire, which measured two primary variables: Doctors' knowledge of the principle of autonomy (independent variable), and Doctors' attitude toward the principle of patient autonomy (dependent variable). The questionnaire underwent validity and reliability testing. It was validated by health experts and piloted among general practitioners at Cibabat Hospital. Cronbach's alpha was 0.85 for the knowledge section and 0.78 for the attitude section, indicating good reliability.

Data Collection

Data were collected using a direct-administered questionnaire. Researchers and trained enumerators explained the purpose and procedure of the study to participants and assisted in completing the forms. Informed consent was obtained before participation, and all data were treated confidentially.

Data Analysis

The data were analyzed using the Pearson correlation test to determine the strength and significance of the relationship between knowledge and attitude. The test was chosen for its suitability in evaluating the linear relationship between two continuous variables.

Ethical Considerations

The study obtained ethical approval from the Dustira Hospital Ethics Committee. All procedures were conducted according to

ethical research guidelines. Participants were informed about the study's purpose, and consent was obtained before data collection. Data confidentiality was strictly maintained.

Results

A total of 32 general practitioners participated in this study, working across various departments in Dustira Hospital. As shown in Table 1, the Emergency Room (ER) had the highest number of respondents, accounting for 10 doctors (31.3%), followed by Cardiology with 5 doctors (15.6%), and Neurology with 4 doctors (12.5%). Other departments, such as General Surgery, Pediatrics, and various specialties—including Psychiatry, Dermatology, Obstetrics, and ICU—each contributed between 1 and 2 doctors, reflecting a wide distribution of clinical backgrounds. In terms of work experience, 17 doctors (53.1%) had been practicing for five years or less, while 15 doctors (46.9%) had more than five years of experience (Table 1).

Table 1. Characteristics of General Practitioners (n = 32)

Variable	Category	n (%)
Department/Unit	Emergency Room (ER)	10 (31.3)
	Cardiology	5 (15.6)
	Neurology	4 (12.5)
	General Surgery	2 (6.3)
	Pediatrics	2 (6.3)
	Orthopedic Surgery	1 (3.1)
	Plastic Surgery	1 (3.1)
	Psychiatry	1 (3.1)
	Dermatology & Venereology	1 (3.1)
	Obstetrics & Gynecology	1 (3.1)

Variable	Category	n (%)
	Intensive Care Unit (ICU)	1 (3.1)
	Ophthalmology	1 (3.1)
	Pulmonology	1 (3.1)
	Medical Rehabilitation	1 (3.1)
Work Experience	≤ 5 years	17 (53.1)
	> 5 years	15 (46.9)

The summary of knowledge and attitude levels based on work experience and frequency in handling STI patients is presented in Table 2.

Among doctors with ≤ 5 years of experience, one doctor (3.1%) frequently treated STI patients but demonstrated inadequate knowledge (0%) and a poor attitude (0%). The remaining 16 doctors in this group who rarely handled STI cases showed relatively better outcomes: 10 doctors (62.5%) had adequate knowledge, and 8 doctors (50.0%) had a good attitude.

Meanwhile, among doctors with > 5 years of experience, all 15 reported rarely handling STI patients. In this group, 11 doctors (73.3%) had adequate knowledge, and 9 doctors (60.0%) had good attitudes.

Overall, 65.6% (21 out of 32) of all participants had adequate knowledge, while 53.1% (17 out of 32) demonstrated a good attitude in addressing the principle of autonomy for STI patients.

Statistical analysis using the Pearson correlation test revealed a very weak negative correlation between knowledge and attitude ($r = -0.146$), and the relationship was not statistically significant ($p = 0.425$). This suggests that while many doctors had good knowledge or attitudes, one does not necessarily predict the other in this sample.

Table 2. Knowledge and Attitude of General Practitioners by Work Experience and Frequency of Handling STI Patients, with Pearson Correlation Result (n = 32)

Work Experience	Frequency Handling STI	n (%)	Knowledge Adequate n (%)	Attitude Good n (%)
≤ 5 years	Often	1 (3.1)	0 (0.0)	0 (0.0)
≤ 5 years	Rarely	16 (50.0)	10 (62.5)	8 (50.0)
> 5 years	Rarely	15 (46.9)	11 (73.3)	9 (60.0)
Total		32 (100)	21 (65.6)	17 (53.1)
Pearson Correlation (Knowledge vs Attitude)			r = -0.146	p = 0.425

Notes: STI = Sexually Transmitted Infections; r = Pearson correlation coefficient; p = Probability value (significance level); n = Number of respondents; % = Percentage of respondents relative to total sample size (n = 32); "Often" refers to general practitioners who frequently manage STI patients in their clinical practice; "Rarely" refers to general practitioners who infrequently or occasionally encounter STI patients.

Adequate knowledge and good attitude are based on scoring criteria from validated questionnaire instruments, where a higher score indicates stronger alignment with ethical principles of autonomy.

Discussion

The results of the study indicate that although most general practitioners have adequate knowledge of the principle of patient autonomy, their attitudes in dealing with ethical dilemmas related to sexually transmitted infections (STIs) do not always reflect this knowledge. This suggests that knowledge is not always directly proportional to good attitudes. In this context, it is important to understand that doctors' attitudes are influenced by various factors, including practical experience and work environment. More experienced doctors tend to show better attitudes, although their knowledge may not always be optimal (Prahla & Jin, 2024; Shachar, 2022). This finding is in line with previous studies showing that practical experience can contribute to the development of better ethical attitudes among medical personnel. However, this study also found that not all doctors with high knowledge showed good attitudes, highlighting the complexity of the relationship between knowledge and attitudes.

The theoretical implications of these findings highlight the importance of continuing education and ethics training for

doctors (Sethi et al., 2018). Although formal education provides a foundation of knowledge, field experience and continuous learning through ethical training and discussions can enrich doctors' understanding of the principle of autonomy. This also suggests that medical education should place more emphasis on developing practical skills and solving ethical problems, rather than just mastering Theory. Limitations of this study include the relatively small sample size and focus on one hospital, which may not fully represent the population of general practitioners across Indonesia. Therefore, further research with larger and more diverse samples is needed to obtain a more comprehensive picture.

The relevance of this study is crucial in the current healthcare context, where physicians are often faced with complex ethical dilemmas. With the increasing cases of STIs and the challenges faced in maintaining patient confidentiality, physicians need to have not only good knowledge but also responsive and ethical attitudes. This study provides valuable insights for the development of health policies and medical education programs by



emphasizing the need for integration between knowledge, experience, and attitudes in physician training. Thus, it is hoped that physicians can be better prepared to face ethical challenges that arise in daily clinical practice.

Relevance to Clinical Practice

This study is relevant to clinical practice as it provides insight into the relationship between physicians' knowledge, attitudes, and experiences in managing patients with sexually transmitted infections (STIs). While general practitioners demonstrated adequate understanding of the principle of autonomy, their attitudes in facing ethical dilemmas did not always align with that knowledge, suggesting that formal education alone is insufficient. Practical experience and continuous ethics training are essential for shaping appropriate clinical attitudes. In real-world settings, physicians often encounter complex situations requiring ethical decision-making, particularly in STI cases where stigma is common. These findings emphasize the need to integrate theoretical understanding with experiential learning to strengthen clinical judgment. Healthcare institutions should develop training programs that not only convey ethical knowledge but also foster practical problem-solving and ethical sensitivity. Additionally, ethics education policies must be tailored to meet physicians' needs, reinforcing the principle of autonomy and improving both the quality of care and the protection of patient rights in everyday practice.

Conclusion

The level of knowledge among general practitioners regarding the principle of autonomy in patients with sexually transmitted infections (STIs) at Dustira Hospital showed variation, with most doctors demonstrating adequate

knowledge overall. However, notable differences emerged based on work experience and the frequency of handling STI cases. Physicians with more than five years of experience tended to possess better knowledge, suggesting that clinical exposure contributes to a deeper understanding of patient autonomy. Interestingly, within the same group, those who frequently managed STI patients exhibited poorer knowledge compared to their counterparts who handled such cases less often, indicating that direct clinical exposure does not always enhance ethical comprehension, possibly due to situational pressures that overshadow ethical considerations. In terms of attitude, more than half of the doctors showed a positive stance toward ethical dilemmas. However, this proportion declined among less experienced physicians who often treated STI patients, suggesting that experience can influence ethical sensitivity both positively and negatively. The mismatch between knowledge and attitude reflects a broader issue in medical education, where theoretical understanding does not always translate into ethical behavior in clinical settings. Overall, this study found no significant relationship between knowledge and attitude toward the principle of autonomy, highlighting the need for a more holistic approach in medical education—one that integrates ethical reasoning, reflective practice, and emotional resilience to strengthen patient-centered care.

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CrediT Authorship Contributions Statement

Ali Taufan: Conceptualization, Methodology, Supervision, Writing - Original Draft, Software, Validation, Formal Analysis, Writing - Review & Editing

Sylvia Mustika Sari: Investigation, Resources, Data Curation, Project Administration

Devita Sari A: Writing - Original Draft, Review & Editing, Visualization, Funding Acquisition

Conflicts Of Interest

There is no conflict of interest.

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