

## Enablers and Barriers to Effective Communication about Drug Information: A Qualitative Study

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### ABSTRACT

Patients involved in health communication are expected to have a better lifestyle to achieve a higher health status. Lifestyle changes may occur through effective communication which likely results in someone's shared understanding and improved attitudes. It is necessary to know factors that can influence effective communication. This study aims to determine the factors that affect communication effectiveness in providing drug information from the pharmacy personnel's perspective. The research was carried out using a semi-structured interview method. The data were analysed using the Interpretative Phenomenological Analysis (IPA) method. Seven pharmacy technicians and ten pharmacists joined the study. Several research themes influencing communication effectiveness between pharmacists and patients are pharmacist empathy, pharmacist reliability and responsiveness, pharmacy atmosphere, patient empathy, physical and mental state, patient competency, and patient feedback. Several sub-themes found were related to facilitators and barriers to effective communication. Based on the Shannon-Weaver communication model, these factors can affect the encoding message process, the information delivery channel, the message decoding process, and the feedback delivery process. Effective communication is influenced both by pharmacists as information providers and patients as recipients of drug information. The pharmacy environment can influence communication channels. Interventions to create effective communication should be given to pharmacists who then transport the information to patients and the pharmacy environment.

**Keywords:** Drug information, effective communication, interview, pharmaceutical care, phenomenological analysis

### INTRODUCTION

Pharmacists have an essential role in public health promotion (Erdogan *et al.*, 2012; Perrault & Newlon, 2018). According to Al-Hashar *et al.* (2018), drug reconciliation and counseling provided by pharmacists can reduce the incidence of drug side effects without significantly increasing the resources required. Some research shows that interventions from pharmacists effectively improve patient knowledge, attitudes, and practices in managing diseases (Axtell *et al.*, 2017; Ghimirey *et al.*, 2013; Tarn *et al.*, 2012; Ylä-Rautio *et al.*, 2020). Patients often ask pharmacists for additional information they do not understand from a doctor's statement or ask for some

suggestions before consulting with a doctor (Tarn *et al.*, 2012). In addition to providing prescription drug counseling, pharmacists also should provide information regarding the use of non-prescription drugs (Cavaco *et al.*, 2017) because patients out there massively continue using non-prescription drugs. Thus, pharmacy counseling is needed to achieve safe self-medication (Veiga *et al.*, 2021; Ylä-Rautio *et al.*, 2020; Yorimoto *et al.*, 2022). During the COVID-19 pandemic, the role of pharmacists in educating patients and the public about health protocols, diseases, symptoms, and treatment of COVID-19, also fighting hoaxes by providing facts based on scientific evidence increased (Widayanti *et al.*, 2022).

Unclear information can increase the incidence of drug side effects (Al-Hashar *et al.*, 2018). Drug counseling is a substantial component of pharmacy services (Yang *et al.*, 2016). Thus, pharmacy personnel must pay attention to how information is conveyed to fit patients' needs and expectations (Bahem, 2017). The ability of pharmacists to provide counseling is a significant consideration for patients in choosing a pharmacy they will visit (Qudah *et al.*, 2021). Counseling is part of communication that will also shape future therapeutic relationships' expectations, patterns, and outcomes (Ruben, 2016). Given the very high need for the availability of information and counseling, communication skills are crucial for pharmacy personnel (Cavaco *et al.*, 2017; Yorimoto *et al.*, 2022).

Good communication is one of the determining factors for service quality. Trust is attainable when patients have experienced good communication with healthcare providers (Chen *et al.*, 2022; Ruben, 2016). Effective communication can improve patient satisfaction and health outcomes (Gordon *et al.*, 2015; Sarmadi, 2017). Poor communication, on the other hand, can lead to various undesirable outcomes, such as the low amount of drug information to patients, poor medication adherence, lack of patient safety, inefficient use of resources, patient dissatisfaction, non-achieved therapeutic outcomes in patients, and economic problems (Taitel *et al.*, 2012; Yang *et al.*, 2016). Miscommunication or misinterpretation by patients can harm themselves (Oktarlina & Wafiyatunisa, 2017; Ylä-Rautio *et al.*, 2020). Optimal treatment management requires an effective relationship between patients and healthcare professionals (AlGhurair *et al.*, 2012).

The relationship between communication and health is one of the least developed areas in communication research (Jiang, 2017; Nichols *et al.*, 2021). In giving more references to communication in health sectors, communication continues to be a critical focus in healthcare theory, research, and practice (Ruben, 2016). Pharmacists often need help to involve patients in communication or can only convey brief information to patients (Seubert *et al.*, 2018; Yang *et al.*, 2016). High-quality conversations are difficult to create (Epstein *et al.*, 2017). Supporting effective communication between pharmacists and patients is vital. According to the Oxford Dictionary, being effective means producing the desired or intended result or a successful result.

Communication is the activity or process of expressing ideas and feelings or giving people information. In this study, effective communication is defined as a communication process that produces the same understanding between the sender (pharmacy personnel) and the receiver (patient).

This study aims to determine the factors affecting the effective communication of drug information from the pharmacy personnel's perspective. Several studies have been conducted to improve the ability of pharmacists to communicate in providing drug use counseling. Young *et al.* (2018) state that there is often a difference between an ideal practice and what can be achieved in the real world. Research on pharmacist-patient communication is still exploratory, and most of it is done quantitatively using cross-sectional methods. This current study is expected to be a reference for developing better pharmaceutical services, especially in Indonesia. In general, health communication is conducted under ideal conditions in private rooms, but most communication in pharmaceutical services, especially in Indonesia, occurs at open drug service counters. Research that explores factors related to effective communication in providing drug information in the actual pharmaceutical services in Indonesia warrants attention. The research used qualitative methods to dig deeper into data on natural conditions in the field (O'Brien *et al.*, 2014). The analysis used an Interpretative Phenomenological Analysis (IPA) technique. IPA is suitable for analyzing data on complex, ambiguous, and emotionally charged topics (Smith & Osborn (2015), such as health communication. In addition, IPA is widely used to analyze empirical research in the professional counseling sector (Miller *et al.*, 2018).

## MATERIALS AND METHODS

This current study was carried out according to the principles of qualitative research, with a phenomenology approach (Alase, 2017; Fade, 2004; Gill, 2020; M Reiners, 2012). Data were collected using a semi-structured interview method by community pharmacy personnel. Pharmacy personnel in Indonesia consist of pharmacist and pharmacy technicians or pharmacy vocational staff. Community pharmacy personnel are experienced in communicating with patients, both for prescription and non-prescription services. The interviews were conducted on the general topic of factors influencing communication

effectiveness between pharmacists and patients in the practice/working site of the informants. Informants were asked to share their experiences in communicating with patients. Informants were members of the Indonesian Pharmacists Association in the Bali region (IAI PD Bali) or members of the Pharmacy Technicians Association in the Bali region (PAFI Bali) to ensure background homogeneity (Miller *et al.*, 2018). Samples were taken using a purposive sampling technique. Informants in this study were pharmacists/pharmacy technicians who had pharmaceutical work, were experienced in communicating with patients, were willing to be interviewed, had good communication, and could express their experiences in detail. Informants were excluded from the study if they did not complete the interview session. The recruitment process was carried out after obtaining ethical clearance. The research has received approval from the Research Ethics Committee with Ethical Exemption No: 2089/UN14.2.2.VII.14/LT/2022. The data collection ended after data saturation was reached with the answered research questions. Data were saturated when no new information was obtained from the last recruited informant (Seetharman, 2016).

The IPA method was used to analyze the interview results. This method was accepted in qualitative health research and was used to develop theories, models, and explanations that help us understand the human experience better (Fade, 2004; Nizza *et al.*, 2021; J. A. Smith & Osborn, 2015). Aside from being a researcher, the interviewer was a pharmacist experiencing communication with patients. The interviewer knew the informants when the interview would be conducted. All interviews were recorded, and verbatim transcription was conducted on the interview results. Transcripts were coded and analyzed by authors 1 and 2 according to IPA principles (Fade, 2004; Miller *et al.*, 2018). The analysis results were reviewed by author 4 to increase confidence in the analysis results (O'Brien *et al.*, 2014). All authors connected and combined the themes found into a research model. The research results model was then used to describe the factors influencing effective communication between pharmacists and patients. The SRQR Reporting checklist was used as a guideline for writing a qualitative study (O'Brien *et al.*, 2014).

## RESULTS AND DISCUSSION

Participants involved in semi-structured interviews were seven pharmacy technicians and ten pharmacists. From the beginning to data saturation, the total number of participants was 17. There were 14 female participants and three male participants aged between 23 and 40 years.

According to regulations in Indonesia, the provision of drug information is part of dispensing activities. Pharmacists assisted by a pharmacy technician can carry out activities. Drug delivery must be accompanied by providing drug information, including the drug name, dosage, how to use the drug, indications, contraindications, side effects, how to store the drug, drug stability, and interactions (Technical guidelines for pharmaceutical service standards in pharmacies in 2019; Regulation of the Minister of Health of the Republic of Indonesia Number 9 of 2017; Regulation of the Minister of Health of the Republic of Indonesia Number 14 of 2021). The Shannon-Weaver (1949) communication model was used to discuss the theme of the research results. This model and its variations are the most commonly adopted models in various fields of science, technology, and medicine (Fedaghi *et al.*, 2009). Although the Shannon-Weaver communication model cannot explain the complex cognitive processes that occur in human communication (Fedaghi *et al.*, 2009), this model is commonly used in communication concept modeling between practitioners and patients because of its simplicity and its scientific foundation (Bowman & Targowski, 1987; Dysart-Gale, 2009). The elements in this model include the information source, encoder, noise, decoder, and receiver (Fedaghi *et al.*, 2009; Kuznar & Yager, 2020). The Shannon-Weaver model views communication as the transfer of information from a sender to a receiver. Messages can be distorted or lost due to "noise," such as technical difficulties and semantic or lexical misunderstandings. Noise becomes an obstacle in the communication process to influence one's attitudes and behavior (Mouton, 2018).

Noise in the Shannon-Weaver communication model is a barrier to effective communication about drug information. The results of the study also showed that some facilitators supported effective communication between pharmacists and patients. The schematic results of the research by adopting the Shannon-Weaver communication theory (Bowman & Targowski, 1987; Fedaghi *et al.*, 2009) (Figure 1).

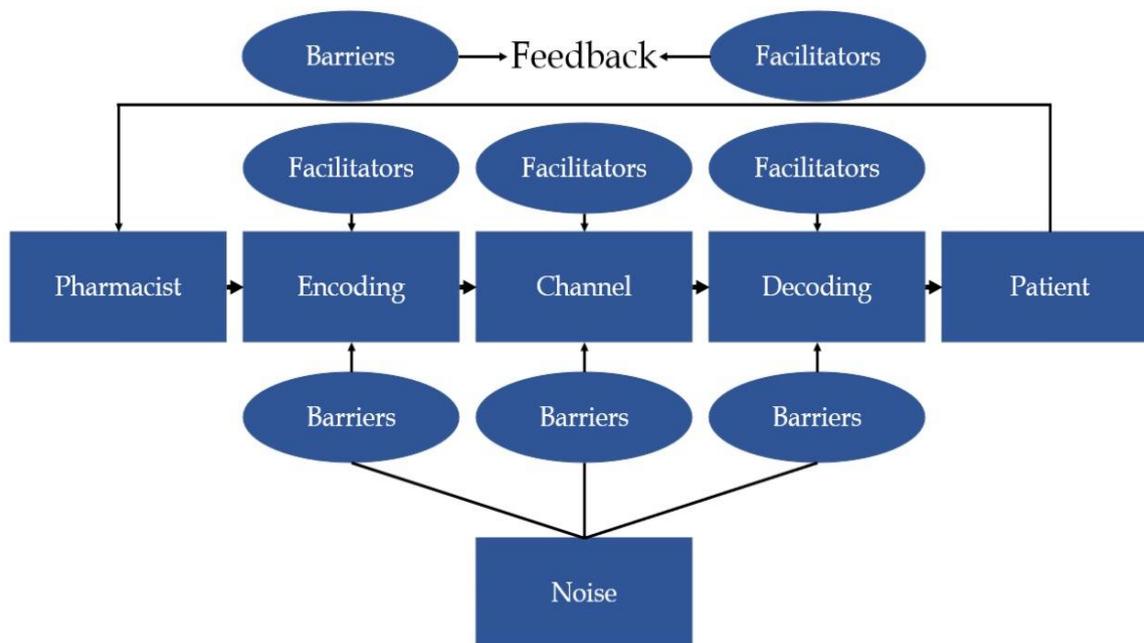


Figure 1. Facilitators and barriers to effective communication between pharmacists and patients during delivering drug information adapted from Shannon-Weaver communication model (Bowman & Targowski, 1987; Fedaghi *et al.*, 2009)

In the Shannon-Weaver communication model, the information source will encode the information conveyed through an encoder (Fedaghi *et al.*, 2009). The research results showed several themes i.e., pharmacist empathy, reliability, and responsiveness influence the encoding process. Fedaghi *et al.* (2009) state that the tangible or physical aspect can affect communication channels. In line with Fedaghi *et al.* (2009) statement, the study results showed that the pharmacy atmosphere is a tangible factor affecting effective communication between pharmacists and patients. The message is conveyed through a channel to a decoder to be translated and delivered to a receiver. According to the research results, several themes influencing the message delivery process, include patient empathy, physical and mental state, and patient competency. Although the Shannon-Weaver communication model initially came under the linear communication model, several modifications were made to describe the communication processes better. Bowman and Targowski (1987), for example, include feedback in the Shannon-Weaver communication model. The current results also found patient feedback as a factor influencing the effectiveness of communication between pharmacists and patients in providing drug information.

### Facilitators and barriers in the encoding process

#### Theme 1: Pharmacist empathy

Empathy is a mental state that makes a person feel or identify himself as feeling or thinking the same as another person or group (Antari *et al.*, 2019). Pharmacists' empathy in communicating with patients is essential (Rusu *et al.*, 2022). Chen *et al.* (2022) stated that patients expect empathetic doctors who pay attention to their welfare. The results showed several sub-themes of pharmacist empathy (Table I). Pharmacy personnel who respect the patient and show concern or worry, hospitality, tolerance, openness, reassurance, encouragement, or optimism can facilitate effective communication. Meanwhile, pharmaceutical staff with unfriendly attitudes can be an obstacle to effective communication. Yang *et al.* (2016) state that the attitude of pharmacists, the use of simple language, and the content of drug information influence patient satisfaction with pharmacy counseling. The staff attitude and the approach used by pharmacists also increase children's involvement in counseling. For instance, patients will be more comfortable when facing a pharmacist speaking in a pleasant communicative tone, reducing medical terms, and having a friendly personality (Abraham *et al.*, 2017).

Table I. Theme and sub-theme in the encoding process

<b>Theme</b>	<b>Sub theme</b>	<b>Interview excerption</b>
<b>Theme 1: Pharmacist empathy</b>	Facilitators: <ul style="list-style-type: none"> <li>• respect for patient</li> <li>• showing concern or worry</li> <li>• hospitality</li> <li>• tolerant</li> <li>• openness</li> <li>• reassuring, encouraging, or showing optimism</li> </ul>	<p><i>“If pharmacists do not have any empathy, then communication will not be able to run effectively”</i></p> <p><i>“Polite procedures such as not interrupting the conversation, not getting angry, not being grumpy, looking at the other person, listening to the other person, responding, greeting back to make the communication can run effectively well.”</i></p> <p><i>“We as pharmacists or medical practitioners must be patient in dealing with patients' emotions.”</i></p>
	Barrier: <ul style="list-style-type: none"> <li>• unfriendly</li> </ul>	<p><i>“Since waiting is a difficult thing, it is best to create communication with the patient in advance or inform the patient about the time before preparing the medicine and giving the medicine to the patient so they get certainty thing and to make them comfortable.”</i></p>
<b>Theme 2: Pharmacist reliability and responsiveness</b>	Facilitators: <ul style="list-style-type: none"> <li>• Pharmaceutical competency</li> <li>• Communication competency</li> <li>• Work experience</li> <li>• Confidence</li> <li>• Responsiveness</li> </ul>	<p><i>“Because if we do not competent it means we do not have enough knowledge about one medicine, automatically when they ask what is this function for, Mam, when do you drink it, Mam, then if, for example, I am sick with this or that illness, I can take this medicine at home. No, madam, it's like that. If we do not have enough understanding of it, we will convey it to patients in the future, there will be less communication between us and patients, and it will not go well either”</i></p>
	Barrier: <ul style="list-style-type: none"> <li>• Lack of drug knowledge</li> <li>• Lack of communication skills</li> <li>• Lack of confidence</li> </ul>	<p><i>“It depends on the pharmacist in explaining to the patient if you can explain in the right way and be able to convince the patient by explaining which medicine has the same effect and usage.”</i></p> <p><i>“So, apart from knowing the theory, we also have to know the practice in the real life, so it must be synchronized to form effective communication.”</i></p> <p><i>“For example, the patient comes with a prescription, and we are fast response – yes mam what can I help you? For example, like that, the patient has been served quickly, so patients are also happy because they are served quickly. Finally the communication and explanation about the medicine we give are well understood.”</i></p> <p><i>“It will be very reassuring to patients if we are confident in providing information to patients. If we are in doubt, the patient will be in doubt as well.”</i></p>

Pharmacists who show respect to their patients can gain patient trust (Haverfield *et al.*, 2022).

Based on the study's results, information delivery would be effective if pharmacists could show empathy and encourage patients to convey their opinions. If the pharmacist does not ask about the patient's concerns and beliefs and does not encourage the patient to express his doubts about the treatment, then the patient's needs are not met, and medication adherence is poor (Pelicano-Romano *et al.*, 2015; Van Dijk *et al.*, 2016). Thus, the purpose of effective communication is not achievable.

In the initiation of conversations, exhibiting hospitality is vital to creating a favorable first impression and developing good relationships (Greenhill *et al.*, 2011). The current results showed that smiling and greeting at the beginning of a meeting can form effective communication. The pharmacy staff can show concern by listening to the patient. Pelicano-Romano *et al.* (2015) mention substantial professional humanistic skills, for example, listening to patients during counseling.

## **Theme 2: Pharmacist reliability and responsiveness**

The reliability of pharmaceutical personnel can be interpreted as reliability in pharmaceutical science and how to convey messages. The pharmacist reliability and responsiveness sub-themes that facilitate effective communication (Table I) are pharmaceutical competencies, communication competency, work experience, confidence, and responsiveness. Meanwhile, lack of drug knowledge, lack of communication skills, and lack of confidence can be barriers to effective communication in providing drug information. Chen *et al.* (2022) state that patients expect competent, compassionate, honest, empathetic, and reliable doctors who pay attention to their patients' well-being.

Pharmacy personnel must ensure patients know the drugs to use and how to use them (Young *et al.*, 2018). Pharmacists can ask relevant questions to increase understanding and patient involvement in the discussion (Watson *et al.*, 2014). Inquiring about what the patient has gotten from the counseling can encourage patients to ask for information they do not understand (Greenhill *et al.*, 2011). Cavaco *et al.* (2017) and Rusu *et al.* (2022) state that relational skills and communication skills are required in providing

pharmaceutical counseling. Strengthening the expertise and relationship quality between patients and pharmacy staff is associated with increased patient satisfaction and patient commitment, which generate better treatment outcomes (AlGhurair *et al.*, 2012). Skilled pharmacists can escalate patient participation in consultations improving service quality (Pelicano-Romano *et al.*, 2015).

The research results also showed pharmacists with higher work experience can communicate more effectively. Qudah *et al.* (2021) and Yorimoto *et al.* (2022) state that observing and practicing questioning skills in work experience are needed to increase self-efficacy related to health communication. Pharmacy staff also tend to be more confident in counseling on the usual topics they often provide. Abraham *et al.* (2017) state that pharmacy staff who have more experience with children or have children can communicate better with other children.

Patient perceptions regarding pharmacists' expertise affect the quality of the relationship between pharmacists, patients, and patient satisfaction (AlGhurair *et al.*, 2012). Tarn *et al.* (2012) state that a lack of knowledge about drugs and therapeutic plans given by doctors is an obstacle in counseling. Lack of nurse confidence is also a significant obstacle to nurse-patient communication in primary healthcare settings (Abdulla *et al.*, 2022).

## **Facilitators and barriers in the encoding process**

### **Theme 3: Patient empathy**

The empathy shown by the patient can affect the effective communication about drug information. The sender of the message alone cannot control health communication. Successful communication tends to be influenced by the recipient's tendencies and responsibilities (Ruben, 2016). Sub-themes of patient empathy (Table II) that can support effective communication are being sociable and polite, truthful, and also orderly. The poor attitude shown by patients is an obstacle to effective communication between pharmacists and patients. In other words, pharmacists expect patients' honesty and openness about their condition. According to Fielding *et al.* (2018), therapeutic outcomes can be maximized if patients disclose relevant information, for example, the drugs they are currently using.

Table II. Theme and sub-theme in the decoding process

<b>Theme</b>	<b>Sub theme</b>	<b>Interview excerpt</b>
<b>Theme 3:</b> <b>Patient empathy</b>	<i>Facilitators:</i>	<i>"When patients are polite to us, we will be respected in providing information, and communication will be smooth, and patients who receive it will also be smooth."</i>
	<i>Sociable and polite</i>	
	<i>Truthful and open</i>	<i>"The most important factor is that patients honestly tell their complaints so that the pharmacy staff can give the medicine correctly."</i>
	<i>Orderly</i>	<i>"When patients are orderly by following the flow of services properly, it will be easier to communicate with patients"</i>
	<i>Barrier:</i>	<i>"Patient comes disrespectfully, so we are too lazy to treat them. Who cares!"</i>
	<i>Poor attitude</i>	
<b>Theme 4:</b> <b>Patient physical and mental state</b>	<i>Facilitators:</i>	<i>"We must adapt to the patient so that there are no misunderstandings during the communication. For example, there are some patients from outside ethnic groups who indeed communicate in a loud tone."</i>
	<i>Sociodemography</i>	
	<i>Belief</i>	<i>"So coming back again like that suggestion. So, if he/she already believes, he will definitely convince himself/herself to recover."</i>
	<i>Perception</i>	
	<i>Good relationship with pharmacist</i>	<i>"So we often meet, we know each other, even though we know only between staff and patients, it's easier to achieve an effective communication."</i>
	<i>Previous experience</i>	
	<i>Barriers:</i>	<i>"If, for example, he has received previous explanations that he is uncomfortable, even with other pharmacists, then when he gets another explanation, it's like he already has the assumption that all pharmacists are the same. So, we are the ones who are right to explain, like if we are less flexible."</i>
	<i>Poor health condition</i>	<i>"Patient's feelings and emotions such as high level of pain, condition of patients who have poor hearing."</i>
	<i>Impatience</i>	<i>"Like for example, a patient's child is sick, so he keeps thinking about his child, so sometimes what we would like to explain to them does not work."</i>
	<i>Anxiety</i>	<i>"Maybe there are patients who are emotionally angry quickly because they are waiting a bit long. During medicine delivery, maybe because they've been waiting for a long time, right? Surely what we wanted to talk to him about earlier, he was already grumbling, so it will be hard for us to give them further information."</i>
	<i>Temperamental attitude</i>	
<b>Theme 5:</b> <b>Patient competency</b>	<i>Facilitators:</i>	<i>"If we explain the medicine, then the patient does not understand, we are also confused about how to explain the medicine, so our communication will not be effective with the patient."</i>
	<i>Verbal communication</i>	
	<i>Health literacy</i>	<i>"For example, he/she (the pharmacist) has more knowledge about medicine, so it is easier to tell the patients, faster and more accurately."</i>
	<i>Barrier:</i>	
	<i>Poor health literacy</i>	

#### **Theme 4: Patient physical and mental state**

Patients' physical and mental conditions determine how they respond to messages from a pharmacist. Several sub-themes of the patient's physical and mental state (Table II) that can support effective communication include sociodemography, belief, perception, good relationship with the pharmacist, and previous experience. Meanwhile, the patients stated that poor health conditions, impatience, anxiety, and temperamental attitudes were barriers to effective communication.

As the study result, Qudah *et al.* (2021) state that patient characteristics, such as demographics, the type of patient illness, culture, and language, likely affect patient-pharmacist interpersonal communication. Watson *et al.* (2014) also state that factors such as education level, use of the same pharmacy, and marital status influence patient consultation typology. Veiga *et al.* (2021) state that education level and consultation typology are significantly related. Pelicano-Romano *et al.* (2015) state that a lack of formal education and older age can be barriers for patients to participate in consultations. However, Watson *et al.* (2014) found that patients with post-secondary education have a lower intention to exchange information with pharmacists.

The close relationship between pharmacists and patients builds effective communication. In line with that, Qudah *et al.* (2021) and Abraham *et al.* (2017) also assert that a good relationship between health workers and patients is beneficial in building trust and understanding. The relationship quality also influences the patient's perception of the health workers' competence, satisfaction, and commitment to carrying out the discussion agreement (AlGhurair *et al.*, 2012). Cavaco *et al.* (2017) state that pharmacists show a high emotional bond in daily practice and a feeling of mutual trust with patients on long-term relationships, including with the patient's family. Patient loyalty is a vital prerequisite in pharmaceutical services.

Qudah *et al.* (2021) state that patients who choose not to consult with a pharmacist feel it is unnecessary to communicate with the pharmacist. Patients believe the doctor has explained everything, or they can find information elsewhere (e.g., on the Internet). Patients' beliefs about their role in communication, previous experience in communicating with pharmacists, personality traits, and perceptions of their relationship with pharmacists are correlated with patients' active

participation in the communication process. Abraham *et al.* (2017) found that if the patients' parents seemed to be hurry, the pharmacy staff would think they would reject a counseling offer.

Trust in a relationship is not built in just one incident or episode but develops over time (Hong & Oh, 2020). How participants act or behave during the communication process is influenced by their past experiences, the context in which they interact, and the actions of other participants (Shah & Chewing, 2006). Patients' perceptions of how others see them are very influential in the typology of patient consultations (Pelicano-Romano *et al.*, 2015). When a patient is recognized and comforted in a medical consultation, the patient's anxiety will decrease, while positive emotions such as self-esteem and optimism will increase (Jiang, 2017). In addition, patient trust has a positive effect on the self-efficacy of pharmacists in charge of conveying health information (Yorimoto *et al.*, 2022).

Each individual may have different preferences in communication. For example, some patients may want to avoid discussing their emotional needs with healthcare professionals (Trivedi *et al.*, 2021). Kaae *et al.* (2014) also mention that patients' needs for counseling vary depending on the type of drug they buy. Patients are more interested in receiving counseling on buying over-the-counter drugs or nonrepeat prescriptions. Pharmacists also provide less information when handing over drugs from prescriptions on repeat (Young *et al.*, 2018).

#### **Theme 5: Patient competency**

This current study also demonstrated findings that several patient competency sub-themes can support effective communication (Table II). The sub-themes include verbal communication skills and health literacy. Health literacy can ensure that effective communication is maintained.

Health literacy in this study is the patient's understanding of health and drug use. Good health literacy helps patients understand their health situation. More information is only provided during counseling when requested by the patient. Patients sometimes do not know what kind of information to ask; therefore, at the end, the patient will not receive complete information (Young *et al.*, 2018). Patients with limited literacy levels are more reluctant to ask questions during consultations. Rational and critical individuals actively seeking health information frequently only believe in the information they obtain with further confirmation

and communication with health professionals (Liu & Jiang, 2021). Instead, Qudah *et al.* (2021) found that patients who were confident in their knowledge and believed they had a good understanding of their treatment had a negative attitude towards the benefits of pharmacist consultation.

A confident and communicative patient will participate more actively in the conversation and enhance effective information delivery (Rusu *et al.*, 2022). Interventions that aim to increase patients' self-confidence and communication skills have successfully increased patient participation in the counseling (Qudah *et al.*, 2021). The obstacle will appear if the pharmacist and patient speak different languages because of differences in dialects or the use of regional languages. Chang *et al.* (2011) and Abdulla *et al.* (2022) in their research stated that if pharmacy staff and patients speak the same language, communication is likely to be more effective.

### **Facilitators and barriers to channel information**

#### **Theme 6: Pharmacy atmosphere**

The pharmacy atmosphere affects the channel of information delivery. Sub-themes about pharmacy atmosphere that can encourage effective communication (Table III) include pharmacy layout and cleanliness, adequate lighting, consulting room availability, information aids accessibility, and pharmacist attributes. Meanwhile, overcrowding/lack of space, inadequate lighting, and long queues can cause noise in the information delivery channel and lead to ineffective communication.

In line with the study, Yang *et al.* (2016) and Abraham *et al.* (2017) state that adequate counseling time, use of counseling aids, and privacy affect patient satisfaction with the counseling. Abraham *et al.* (2017) also express that privacy settings and the availability of demonstrative and attractive educational aids can increase children's focus on receiving health information. Barriers that separate pharmacists from patients, such as proximity to shelves and crowds of patients waiting in line, create distance between pharmacists and patients.

Qudah *et al.* (2021) state that most pharmacies do not have adequate privacy, increasing chances for various external factors to affect the consultation process. According to Abraham *et al.* (2017), the uncondusive

pharmaceutical environment is an obstacle for children counseling. Children are afraid to talk to pharmacy staff because of the busy atmosphere of the pharmacy or the appearance of health workers wearing white coats. Abdulla *et al.* (2022) also mention an uncondusive environment as a barrier to nurse-patient communication in primary healthcare. An uncondusive environment includes temperatures that are too hot or cold, insufficient lighting, and unpleasant odors.

The length of time that patients spend in waiting rooms can reduce their level of satisfaction. Patients spend much more time with waiting in line and have limited time to communicate with health workers regarding their illness and treatment (Trivedi *et al.*, 2021). The patient's parents sometimes refuse to consult after waiting too long in a queue. They might feel bad because counseling would prolong queuing (Abraham *et al.*, 2017).

### **Facilitators and barriers in the feedback process**

#### **Theme 7: Patient feedback**

The receiver's feedback also affects the information sender. Several sub-themes related to patient feedback that could support effective communication (Table IV) include patient responsiveness, appreciation, compliment, agreement words, and a patient question. Meanwhile, effective communication will be challenging to achieve if the patient shows an unresponsive attitude.

Patients have a strong influence on the pharmaceutical workforce. The patient's interest in counseling will determine the quantity and type of delivered information which ultimately affects the fulfilment of the patient's needs related to the treatment (Abraham *et al.*, 2017; Qudah *et al.*, 2021).

The study revealed that patients' responses, such as an appreciation for the pharmacist's explanation, and body gesture feedback, such as nodding, formed effective communication. In line with that, Zhou *et al.* (2021) also state that the choice of words in communication will affect communication effectiveness. Expressions of concern, empathy, and commitment play a vital role in health consultations (Wang *et al.*, 2017). Patient questions, input, expectations, needs, and belief systems also contribute to and influence patient-pharmacist interpersonal communication (Qudah *et al.*, 2021).

Table III. Theme and Sub-theme in the Channel information

Theme	Sub theme	interview excerption
<b>Theme 6: Pharmacy atmosphere</b>	Facilitators:	
	<ul style="list-style-type: none"> <li>• Pharmacy layout and cleanness</li> <li>• Adequate lighting</li> <li>• Consulting room</li> <li>• Information aids accessibility</li> <li>• Pharmacist attributes</li> </ul>	<p><i>"It will be very reassuring to patients if we are confident in providing information to patients. If we doubt, the patient will also doubt."</i></p> <p><i>"If the pharmacy is clean, smells good, visitors do not rush to leave. They have time if we want to explain the medicine."</i></p> <p><i>"Lighting will enhance the explanation to the patient, and good lighting will help reduces inaccuracies in reading the rules of use."</i></p>
	Barriers:	
	<ul style="list-style-type: none"> <li>• Overcrowding/ Lack of Space</li> <li>• Inadequate lighting</li> <li>• Long queue</li> </ul>	<p><i>"Backrests soft seats are also better, and there are adequate counseling rooms."</i></p> <p><i>"If a patient comes to the pharmacy, he/she decides what medicine he/she wants to buy. While the brochure also contains information, the patient feels confident about buying the medicine. The communication gets better when pharmacy technicians explained messages to patients."</i></p> <p><i>"For the neatness of the pharmacy staff, if the pharmacy employee, either a pharmacist or pharmacy staff is neat, it will also affect the patient's comfort during communication."</i></p> <p><i>"If the pharmacy is always crowded, for example, and there are only a few seats, it will make it uncomfortable for patients who are waiting because the environment is noisy. If there are enough seats for waiting patients, we do not have to shout to them when explaining medicine. This situation makes effective communication."</i></p>

Sometimes patients feel that the information given by the pharmacist may be insignificant to them. Much literature discusses the difference between what health professionals think patients should know and what patients want to know (Young *et al.*, 2018). In their research, Cavaco *et al.* (2017) state that the conflict between patients and pharmacists arises from the public's perception of pharmacists as business people and not health professionals. Patients may perceive the activities of pharmacists in offering information and selling products as a means to retain and attract customers rather than being concerned for patient welfare.

Pharmacists are in the middle of two roles as health workers and pharmacy managers (Antari

*et al.*, 2021; Cavaco *et al.*, 2017). The exchange of information in drug dispensing plays a vital role in shaping patient perceptions. Such activities allow the integration of clinical information with patient beliefs and expectations. The provision of drug information must be sensitive to patient needs while considering literacy, numeracy, and cultural issues (Finney Rutten *et al.*, 2015).

As a qualitative study, this study has limitations in generalizing research results. However, the research process was carried out by considering the triangulation process to ensure the validity of the results. The research data were taken and analyzed by the researcher, who is also a pharmaceutical staff.

Table IV. Theme and sub-theme in the feedback process

Theme	Sub theme	interview excerption
Theme 7: Patient feedback	Facilitators:	<p><i>“The response from the patient to the pharmacist is very important because you can find out directly whether the patient has understood or not about the explanation given so that it can minimize miscommunication.”</i></p> <p><i>“Sometimes we forget to explain some things about the medicine. If the patient asks about it, and we remember to explain it, there is something to tell them.”</i></p> <p><i>“Feedback or response from patients such as giving appreciation and gratitude to pharmacists make them happy because patients are willing to listen carefully to the explanations given.”</i></p> <p><i>“If the patient is indifferent like he does listen, then it (the information) will not be delivered to the patient.”</i></p>
	• Patient responsiveness	
	• Appreciation, compliment, and or agreement word	
	• Ask questions	
	Barrier:	
	• patient irresponsiveness	

Using the researcher's perspective, the research results were more comprehensive. The perspective is consistent with the characteristics of the IPA method used to analyze the data. Smith *et al.* (1999) emphasize that IPA aims to gain an informant's perspective of the phenomenon being studied. The researcher's belief as the primary analytical tool is needed to understand the experiences of other individuals and is not a bias that needs to be eliminated (Fade, 2004). The author also only considers the patient as an information receiver although families and other companions might present or replace the patient when health communication occurs. The strength of this study is the themes yielded from natural information of phenomena in pharmacy. This study generates some new perspectives on the communication of pharmacists and patients. Shah and Chewning (2006) state that qualitative methods offer opportunities to produce new concepts and themes related to pharmacist-patient communication.

**CONCLUSION**

Achieving effective communication in providing drug information is crucial. Effective communication will result in a common understanding between pharmacists and patients regarding the therapy they must undergo. Patients with the same assumption as pharmacists will be more compliant with medication to increase the patient's health status. Several factors that can

affect the effectiveness of communication regarding drug information between pharmacists and patients are composed of pharmacist empathy, pharmacist reliability and responsiveness, pharmacy atmosphere, patient empathy, patient physical and mental state, patient competency, and feedback from patients. The research also produces sub-themes as facilitators and barriers to effective communication.

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**CONFLICT OF INTEREST**

The authors declare no conflict of interest.

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