

# Self-Repair Practices in Pharmacist-Patient Interaction and their Role in Preventing Misunderstanding and Maintaining Medication Safety

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**Abstract.** Effective communication between pharmacists and patients can prevent medication errors as it enhances patients' understanding of their medication and increases their adherence. As misunderstanding may occur in any type of interaction and lead to communication breakdown, repair practices that speakers adopt to enhance understanding in interaction are an especially important area of research in Conversation Analysis

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(CA). As such, this study aims to identify and explain the self-repair practices used by pharmacists to increase patient understanding in spoken interaction. The study was conducted at the University of Malaya Medical Centre from November to December 2014. Four pharmacists and 27 patients were recruited to participate in an intervention study. A detailed sequential analysis of interaction data revealed the pharmacists' use of replacement, clarification, verbatim repeat, and repetition with an elaboration designed to increase the clarity and accuracy of the intended message and improve patient understanding. Self-repair practices may have an essential role in increasing medication safety in the healthcare setting.

**Keywords:** pharmacist-patient interaction; misunderstanding; medication errors; self-repair practices; verbatim repeat; conversation analysis; COVID-19.

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## Introduction

Spoken communication in the healthcare setting is the medium through which patients' symptoms are elicited, diagnosis is delivered, and treatment is recommended (McCabe, Healey, 2018). Studies show that effective communication is a fundamental component of clinical practice that improves care outcomes as it enhances patients' understanding and increases their adherence to treatment plans (Kee et al., 2018). Conversely, ineffective communication results in undesired consequences and can cause patient harm (Pino-Postigo, 2017). Language can cause communication breakdown, one of the common communication problems encountered in physician-patient interaction (Antia, Fankep, 2004). Such communication issues between patients and physicians result in possible medication errors (Antia, Fankep, 2004).

Medication error is a significant safety issue in the medical setting that healthcare providers strive to minimize (Johari et al., 2013). While there are numerous causes of a medication error, communication errors are considered the number one cause (Adler et al., 2004). Ineffective communication between pharmacists and patients results in non/misunderstanding and impacts patients' adherence to medication (Murphy, Dunn, 2010). Therefore, pharmacists have a significant role in maintaining effective communication with their patients and preventing medication errors as they are very likely the last person the patient meets before initiating treatment. Maintaining effective communication skills is essential, especially during the COVID-19 pandemic, where healthcare providers fall short of time to talk to their patients in person (Back et al., 2020). In addition, patients are more stressed and sensitive; thus, healthcare providers must be careful with their language (Reddy, Gupta, 2020). Hence, when doctors use simple language and communicate effectively with their patients during the pandemic, it positively impacts patients and can lead to better overall clinical outcomes (Al-Zyoud et al., 2021). According to Finset et al. (2020), maintaining clear and good communication between doctors and patients is considered a key factor in fighting COVID-19. Therefore, any miscommunication or misunderstanding may affect the healthcare outcomes since everything in a pandemic revolves around effective communication (Reddy, Gupta, 2020).

As in other types of interactions, misunderstanding can frequently arise in health communication (Fatahi, 2010). It may be caused by many reasons, including mispronunciation, mishearing, ambiguity, lack of knowledge, and poor topic organization

(Pietikainen, 2018). Avoiding misunderstanding and achieving shared understanding in health communication is especially significant for health outcomes. Conversation Analysis (henceforth CA) affords a distinctive approach to the study of communication, which takes into account the sequential organization of talk and the displayed understandings participants achieve in interaction (Heritage, 1997). The analysis of speakers' turns at talk, including prior and next turns, allows conversation analysts to locate misunderstandings and describe how they are dealt with in and through the process of interaction (Schegloff et al., 1977). In this regard, repair, which is an integral part of effective communication, plays a critical role.

Repair can be described simply as a mechanism that provides solutions to problems in conversation. It is composed of two parts, i.e., repair initiation and repair properly. Repair proper is performed by the current speaker or the other speaker. Thus, repair is classified based on who performs the repair rather than who initiates it, i.e., self-repair (current speaker) and other-repair (the other speaker). Repair, which sheds light on how meaning is negotiated and co-created in conversation (McCabe, Hearley, 2018), is a key mechanism for speakers to establish mutual understanding in talk. CA, considered the most sophisticated empirical approach to analyzing how interlocutors construct shared understanding in conversation (McCabe, Hearley, 2018), is therefore well-suited as the theoretical framework of this study.

Despite the impact of misunderstanding on healthcare communication, few studies have focused on misunderstanding and miscommunication in the healthcare setting (Morgan, 2013; Moss, Roberts, 2005); further, these studies have not provided a clear account of how and why misunderstandings occur and how they can be avoided (Morgan, 2013). To date, no research has investigated the use of repair practices in pharmacist-patient interaction in the context of medication safety. Hence, the present study was designed as part of an intervention to examine pharmacists, doctors, and patients' involvement in minimizing and preventing medication errors. The intervention consisted of five parts: 1) pharmacist assessment of patients and medication review, 2) doctor-pharmacist first discussion, 3) doctor-patient consultation, 4) doctor-pharmacist second discussion, and 5) medication dispensing and counselling by the pharmacist. This paper, which reports on the first part of the intervention, examines self-repair practices used by pharmacists when reviewing the patient's medication to uncover how these practices are used to enhance the patient's understanding in order to minimize medication errors.

## Method

This qualitative study was conducted at the University of Malaya Medical Centre (UMMC), Malaysia, from November to December 2014. Due to the high numbers of medication errors in Malaysian hospitals (Johari et al., 2013), an intervention consisting of five parts (see above) was designed to minimize medication errors. To carry out the study, four pharmacists and four doctors, who had a minimum of four years of working experience, were recruited with 27 patients with chronic illnesses and drug-related

problems. A week before the intervention, the researcher briefed the doctors and the pharmacists on the details of the intervention. The doctors identified patients who were at risk of drug-related problems. The pharmacist notified the selected patients over the phone. The pharmacist met the patient first to perform a patient assessment and medication review on the appointed day. Then, the patient met the doctor for regular consultation, after which the pharmacist and doctor reconvened to discuss the prescribed treatment. The pharmacist then dispensed the medication to the patient and provided counselling.

Twenty-seven pharmacist-patient conversations amounting to 6.46 hours were audio-recorded. The data were then transcribed using Jefferson's (2004) transcription conventions (see Appendix). In the data extracts examined below, the participants have been coded as Ph for the pharmacist and Pt for the patient. CA is used as the analytical tool to explicate the repair practices that the pharmacists use to increase patient understanding and avoid medication errors.

Prior to collecting the interaction data, ethics approval was obtained from the University of Malaya Medical Centre Medical Ethics Committee (Ref. No. 890.104).

## **Theoretical Framework**

### ***Conversation Analysis***

Since the data collected comprise spoken interactions, CA was used as the theoretical framework. CA is an approach to the study of talk in interaction that aims to elucidate the organizational structure, sequential patterns, and orderliness of talk. It explains the rationality and logicity that underlie human practices which include the use of language in the organization of talk. In essence, CA affords the researcher the ability to arrive at a deeper understanding of the communicative actions of participants as it analyses the structures of the interaction at a micro-analytic level (White, 2011). In the present study, CA is particularly relevant as it allows the researchers to delve into the intricacies of pharmacist-patient interaction and describe how understanding is enhanced and medication error is avoided in and through interaction. As CA takes on an emic perspective, all interpretations of the data are based on the participants' orientations.

### ***Repair***

Repair is one of the fundamental features of the organisation of talk in CA. It is defined as a mechanism that deals with "recurrent problems in speaking, hearing, and understanding" (Schegloff et al., 1977, p. 361). Repair pertains to all levels of conversation, from turn-taking to sequential order and preference, as these are frequently subject to difficulties. The self-regulating nature of the conversational system provides a set of processes and practices that allow speakers to deal with these difficulties and the miscommunications that arise in talk (Liddicoat, 2007).

Repair is a broader concept than correction. Thus, to highlight the broad nature of repair, conversation analysts use the term **repair** instead of correction to refer to the general phenomenon of dealing with difficulties in talk. Meanwhile, the term **trouble source** refers to what requires repair in the talk (Schegloff et al., 1977). Either the speaker of the trouble source or its recipient may initiate repair. Hence, Schegloff et al. (1977) proposed the organization of repair in which a clear distinction is made between who initiates the repair and who performs it. As Liddicoat (2007, p. 210) explains, there are four types of repair such as self-initiated self-repair, other-initiated self-repair, self-initiated other-repair, and other-initiated other-repair.

### *Self-repair*

In interaction, speakers who construct their conversational turns step-by-step may stop to modify the unfolding talk (Laakso, Sorjonen, 2010). Such modifications are called **self-repair** when they are made by the current speaker. Self-repair is classified into self-initiated self-repair and other-initiated self-repair (Schegloff et al., 1977).

### *Self-initiated self-repair*

Self-initiated self-repair is the most common combination of repair found in interaction (Schegloff et al., 1977). It is defined by van Hest (1996, p. 1) as “repairs made by speakers on their own initiative, without intervention from their interlocutor(s)”. This means the current speaker modifies the ongoing turn or some preceding turn of their own accord. In self-repair, repair initiation usually consists of hesitation, cut-off or repetition followed by the repairing segment, which addresses the trouble source in the speaker’s utterance.

### *Other-initiated self-repair*

Other-initiated self-repair occurs when a recipient encounters a problem of hearing or understanding the utterance produced by the speaker. The recipient uses different repair initiators such as “what?” or “huh?” to indicate trouble, while the speaker employs a set of techniques to resolve the problem (Schegloff et al., 1977). The recipient may not always specify the nature of the problem, specifically whether it is a problem of hearing or understanding. Thus, it is the task of the speaker of the trouble source to determine how best to modify their prior utterance to increase its comprehensibility (Huensch, 2017).

## **Results and Discussion**

The analysis reveals that pharmacists use specific repair practices to increase communicative clarity and the patient’s understanding of their utterances.

## *Self-initiated self-repair*

The pharmacists made moves to repair their current turn or prior turns by modifying their talk to enhance the patient's understanding and avoid any possible miscommunication. This practice may contribute to medication safety as problematic communication is known to cause medication errors (AMCP, 2010). In self-initiated self-repair, there is no indication of misunderstanding on the part of the patient, which needs to be resolved; rather, the pharmacist's move to self-repair prevents the occurrence of misunderstanding from the outset. According to Schegloff et al. (1977), speakers generally display a preference for initiating and repairing a trouble source themselves before completing the ongoing turn.

The analysis starts by examining how pharmacists employ replacement and clarification to increase patient understanding in interaction.

## *Replacement*

*Replacement* is a practice in which the speaker substitutes “a wholly or partially articulated element of a TCU-in-progress with another, a different element while retaining the sense that ‘this is the same utterance’” (Schegloff, 2013, p. 43). The pharmacists repair their ongoing turn when they identify a problem with some element in their speech and substitute it with another element perceived to be more appropriate and suitable to convey meaning accurately and avoid misunderstanding.

Extract 1 illustrates how the pharmacist replaces an inappropriate word choice with one that more accurately conveys the message intended.

### **Extract 1: Patient 8**

161. Pt: huh, I'm not taking the 40 mg.  
 162. Ph: uh-huh  
 163. Pt: I break it in two, I take 20 mg.  
 164. Ph: 20 mg  
 165. Pt: uh-huh  
 166. Ph: ok  
 167. Ph: [twenty h- h- **how- what time** you take this medication?  
 168. Pt: [because  
 169. Pt: this medication I take night time

In lines 161 to 166, the pharmacist and patient discuss the dosage of the patient's cholesterol medication. Then the pharmacist asks the patient about the time of medication intake in line 167, saying, “... *h- h- how- what time you take this medication*”. Here, the pharmacist cuts off her ongoing turn after the incipient word “*how*” and replaces it with the phrase “*what time*”. The pharmacist uses a cut off to initiate the repair as the Wh-question word “*how*” conveys a different meaning which changes the type of information to be elicited. The pharmacist modifies her ongoing utterance to ask about the time of intake,

which is crucial in the case of cholesterol medication as this medicine is taken in the evening when the body's production of cholesterol increases; the modification ensures that the sought-after information is obtained (line 169). Further, the word replacement avoids the repetition of previously elicited information as the patient has already explained how he takes the medication in line 163; the repair prevents any confusion and secures the patient's understanding of the intended message. The practice of word replacement ensures the accurate exchange of information, which contributes to medication safety.

Extract 2 illustrates another case of replacement in the pharmacist's ongoing utterance.

Extract 2: Patient 5

129. Pt: that one for [leg  
130. Ph: [knee, is it?  
131. Ph: uh[::  
132. Pt: [uh:: for leg, for knee one  
133. Ph: oka::y, **how are yo- how many tablets are you** taking already?  
134. Ph: [is it  
135. Pt: [I take two only

In line 133, the pharmacist stops his ongoing utterance by cutting off a phrase in progress, saying, "*oka::y, how are yo- how many tablets are you taking already?*". The cut-off word "*yo-*" functions as a repair initiator (Laakso, Sorjonen, 2010) to signal that the pharmacist finds the current incomplete phrase "*how are yo-*" problematic; he then substitutes the incipient phrase with another one, saying, "*how many tablets you are taking already?*". The trouble source, that is the phrase "*how are yo- (taking already)*", appears vague and may cause the patient to be unsure of the type of information to provide, while the phrase "*how many tablets you are talking already?*" is specific and makes it clear that the pharmacist is inquiring about the dosage of the supplement being taken by the patient. Word replacement allows the pharmacist to modify his utterance in the direction of greater specificity so that the patient is able to provide the exact information as required by the pharmacist. The pharmacist's self-repair makes meaning clearer and contributes to medication safety as the inquiry relates to the issue of dosage; taking supplements beyond the recommended dosage may cause unwanted side effects.

## Clarification

*Clarification* is a self-repair practice employed by pharmacists that makes the meaning of a prior utterance explicit and clear. It allows the pharmacists to explicate and exemplify what they mean in their prior utterances to avoid confusion. The data reveal that the pharmacists tend to produce a series of utterances to clarify prior talk. As clarifying a prior utterance has been found to resolve problems of non/misunderstanding in interaction (Samuelsson, Lyxell, 2014), such clarification may also help prevent misunderstanding from the outset. According to Drew (2005), speakers must design their turns to be

understood in the way they wish to be understood; hence, they may elaborate on a prior turn to avoid communication breakdown. When clarifying prior talk, the pharmacist produces clearer formulations to increase the comprehensibility of the prior utterance, which can improve medication safety.

**Extract 3: Patient 5**

187. Ph: ok uh:: (0.3) any:: uh medical history? =  
188. Ph: = **have you done any uh:: surgery befo::re?** =  
189. Ph: = **or:: you enter the hospital because [of any events**  
190. Pt: [oh because of deliver my son, operation  
cesarean  
191. Ph: oh only that lah  
192. Pt: only that =

The pharmacist perceives his utterance in line 187 as problematic as he had put forward a rather broad question to the patient; the pharmacist uses latching to hold the floor and proceed to make his prior turn more transparent in lines 188 and 189. The pharmacist specifies the type of information needed if the patient had not understood his use of “*medical history*”. He repairs his prior utterance by providing a couple of examples to clarify the term, saying, “= *have you done any uh:: surgery befo::re?* =” in line 188, and “= *or:: you enter the hospital because [of any events*” in line 189. The clarification reflects the pharmacist’s attempts to clarify his previous question to avoid misunderstanding. According to Mazeland and Zaman-Zadeh (2004, p. 39), “clarification by exemplification enables the recipient to develop a working understanding of a problematic expression”. The clarification spells out for the patient the exact information required so that the patient is able to provide the needed information rather than information that is irrelevant or nonessential. The patient’s response in line 190 shows that the clarification succeeds in eliciting the sought-after information. Clarifying vague utterances leads to more accurate information, which is vital in maintaining medication safety.

In Extract 4, the patient shares information about her current health concern, where she has had diarrhoea for the past three years.

**Extract 4: Patient 6**

161. Ph: so, th- this diarrhoea goes on even without even without metformin lah?  
162. Pt: yes (.) yes  
163. Ph: but you say (.) sometimes it’s better. (.) how many times is it? =  
164. Ph: = **on a good day how many times you have diarrhoea? on a good day**  
165. Pt: good day maybe two, three times

In line 161, the pharmacist seeks to verify that the patient suffers from diarrhoea even when not taking her Metformin (i.e., a diabetic medication that causes diarrhoea as a side effect) which the patient confirms in the next turn. Then, in line 163, the pharmacist asks a further question on the number of times the patient has diarrhoea when “*it’s better*”, saying,



“*but you say (.) sometimes it’s better. (.) how many times is it? =*”. The pharmacist uses latching at the end of his question to hold the floor as he perceives his utterance as lacking clarity; he proceeds to make meaning clear, saying, “= *on a good day how many times you have diarrhoea? on a good day*” in line 164. Here, the pharmacist clarifies the exact information needed by repeating the phrase, “*on a good day,*” at the end of his question. This clarification helps elucidate his original question so that the pharmacist is able to ascertain the severity of the patient’s condition on the basis of the response elicited. The clarification seeks to avoid any misunderstanding on the part of the patient that may result in incorrect information being provided. Accurate assessment of patients requires that the pharmacists gather exact details, which means that the questions posed must be clear and specific. As such, vague and imprecise questions are repaired immediately by pharmacists through clarification. Such clarification may improve medication safety as it ensures that patients provide correct information, leading to more accurate diagnosis and treatment.

### Other-initiated self-repair

Other-initiated self-repair is the second type of repair observed in the pharmacist-patient interactions. Specifically, the analysis focused on how pharmacists employ repetition, the commonly used practice. Two types of repetition, namely, verbatim and with elaboration, are considered for their role in preventing patient misunderstanding and minimizing medication error.

### *Verbatim repeat*

*Verbatim repeat* is a self-repair practice used by pharmacists in which they repeat all or part of their prior utterance to address a problem of non-hearing. The pharmacists use repetition to provide patients with another opportunity to re-hear their preceding utterance to increase the chances of it being understood. According to Kaur (2010), repetition effectively resolves misunderstanding and restores mutual understanding as it provides the recipient with another opportunity to hear the trouble source. The data reveals that most of the repair initiators used by patients are understood by the pharmacists as suggesting non-hearing, as illustrated in Extract 5.

#### **Extract 5: Patient 1**

88. Ph: and the::n (.) what else are you taking? can you tell me?  
89. (0:3)  
90. Pt: uh:: uh (.) siva::statin  
91. Ph: simvastatin ok =  
92. Ph: = do you know what is that for?  
93. Pt: huh?  
94. **Ph: do you know what is that f|or?**  
95. Pt: [cholesterol =  
96. Ph: = cholesterol very good =

In line 88, the pharmacist asks the patient to name the rest of his medication. The patient responds that he is taking Simvastatin. In line 92, the pharmacist asks the patient what Simvastatin is used for to test his knowledge of his medication. The patient produces the non-lexical token “*huh?*”, which signals a problem with the pharmacist’s prior question. The pharmacist responds with a verbatim repeat of his question in line 94 saying, “*do you know what is that ffor?*”, which provides the patient with another opportunity to hear the question. Here, the pharmacist treats the patient’s response as indicating a hearing problem; hence, he repeats his question in full, possibly due to uncertainty about which part of the utterance the patient had trouble hearing. The patient responds by saying “*cholesterol*”, thus stating unequivocally that Simvastatin is taken to manage high cholesterol. The pharmacist repeats the patient’s response to confirm that he is familiar with his medication and aware of its uses. The use of verbatim repeat by the pharmacist secures the patient’s understanding during patient assessment which is vital for medication safety.

A similar case is observed in extract 6.

#### **Extract 6: Patient 17**

170. Ph: = yeah, maybe you can put the neurobion in  
 171. Ph: you can take it at the same time as your blood pressure medicine (.) in the morning  
 172. Pt: **hum?** =  
 173. Ph = **you can take it at the same time as your blood pressure medicine**  
 174. Pt: um um  
 175. Ph: **yeah, you just take it in the morning after your breakfast**  
 176. Pt: uh-huh  
 177. Ph: then that way you won’t feel so hungry because you’ve already eaten

In Extract 6, the participants discuss the patient’s intake of Neurobion, which is a supplement used for nerve sensation recovery. As the supplement increases appetite (mentioned earlier by the pharmacist), and the patient has gained weight, the pharmacist recommends that the patient take Neurobion together with the blood pressure medication in the morning, saying, “*you can take it at the same time as your blood pressure medicine (.) in the morning*” in line 171. The patient responds with the non-lexical token “*hum?*”. The pharmacist, in turn, repeats his prior utterance almost in its entirety in line 173, saying, “*you can take it at the same time as your blood pressure medicine*”. The pharmacist treats the patient’s unspecific repair initiator “*hum?*” as signalling none or incomplete hearing of his utterance, as evidenced by the verbatim repeat of the utterance. Since the non-lexical token “*hum?*” does not specify the source of the problem (Schegloff et al., 1977), the pharmacist repeats his utterance again with some modification in line 175, saying, “*yeah, you just take it in the morning after your breakfast*”. The pharmacist produces a verbatim repeat in the first instance as he is unsure of the part of his prior utterance that posed a problem. Although the blood pressure medication is taken in the morning, the pharmacist expands his utterance in line 175 saying “*after your breakfast*”, to reinforce the patient’s understanding of his message. This information is essential because the patient

has gained weight. Therefore, ensuring that the patient understands that Neurobion is to be taken with the blood pressure medication in the morning after breakfast will help with the patient's weight issue. Thus, securing the patient's understanding of the supplement intake helps prevent non-adherence, which may impact the patient's health. The repair elicits a backchannel in the form of "um-um" and "uh-huh" in lines 174 and 176, respectively, with signals understanding.

### ***Repetition with elaboration***

Repetition with elaboration is another self-repair practice employed by the pharmacists to address hearing and understanding problems. The pharmacists use it to provide the patients with another opportunity to hear a prior utterance and to reinforce understanding.

Extract 7 illustrates another repair sequence in which the pharmacist sees the patient's initiation of repair as signalling a problem of none or incomplete hearing.

#### **Extract 7: Patient 1**

70. Ph: = do you know the milligram?
71. Pt: 50
72. Ph: 50 very good
73. Ph: and your cardura?
74. Pt: ↑ huh?
75. Ph: **your cardura?**
76. Ph: **doxazosin**
77. Pt: that one four milligrams.

In line 73, the pharmacist asks the patient a question about Cardura, which treats high blood pressure, saying, "*and your cardura?*". The patient replies with the non-lexical token "*huh?*" in upward intonation, signalling a problem with the pharmacist's prior utterance. The pharmacist understands the non-lexical token "*huh?*" as indicating a problem of hearing (Church et al., 2017) and proceeds to produce a verbatim repeat of his prior utterance in line 75. The pharmacist also provides the medication's generic name in line 76, saying, "*doxazosin*", which clarifies the medication being referred to; in the event that the patient is unfamiliar with the brand name (i.e., "*cardura*"), the pharmacist provides the generic name (i.e., "*doxazosin*") which the patient may be familiar with. By repeating and elaborating on the prior utterance, the pharmacist not only provides the patient with another opportunity to hear his utterance but also reinforces his understanding of the referent, i.e., the medication in question, which is vital in maintaining medication safety. The patient's response in line 77 reveals that the pharmacist's repair has succeeded in resolving the problem.

Extract 8 presents another example of the pharmacist's repetition with elaboration to repair a prior utterance.

**Extract 8: Patient 10**

78. Ph: so, how about others like simvastatin? Do you take?  
 79. Pt: **huh?**  
 80. Ph: **simvastatin? (.) cholesterol medication do you take?**  
 81. Pt: no, no, no.  
 82. Ph: you don't take cholesterol [medication, yeah?  
 83. Pt: [no no no

In line 78, the pharmacist asks the patient if he takes the cholesterol medication, Simvastatin. The patient responds with the non-lexical token “*huh?*” as a repair initiator to signal a problem with the pharmacist’s prior utterance. Since the non-lexical token does not specify the nature of the problem, the pharmacist treats it as signalling none or incomplete hearing in the first instance and repeats the name of the medication in line 80, saying, “*simvastatin?*”. The pharmacist further clarifies the medication, saying, “*cholesterol medication*”, before repeating his question, saying, “*do you take?*”. Providing the patient with another chance to hear the prior utterance followed by elaboration allows the pharmacist to reinforce and secure the patient’s understanding, which can contribute to medication safety. The patient’s response in line 81 indicates that the repair has resolved his problem with the pharmacist’s question in line 78.

**Conclusion**

The findings of the study reveal that the pharmacists use various self-repair practices such as replacement, clarification, verbatim repetition, and repetition with elaboration to increase communication clarity and enhance patients’ understanding. Given that the two types of self-repair (i.e., self-initiated and other-initiated) differ in the trajectory of actions performed, they were treated separately. The analysis shows that the different types of self-repair are used differently by the pharmacists.

The use of self-initiated self-repair practices such as replacement and clarification indicates that pharmacists are able to anticipate problematic elements in their ongoing or prior utterances and resolve them before the patients take up the next turn to respond. The repair increases the accuracy of the questions posed so that exact and precise information may be elicited from the patients. The pharmacists also make their talk as clear as possible to enhance the patient’s understanding which contributes to medication safety. Whereas in the case of other-initiated self-repair, repetition is the dominant practice employed by pharmacists to provide patients with another opportunity to hear the trouble source following repair initiation by the patient. According to Kaur (2010), repetition enhances and secures participants’ understanding and leads to shared understanding between participants. The strategic use of these self-repair practices increases the effectiveness of pharmacist-patient communication and can help in maintaining medication safety.

Since the intervention aimed to reduce medication errors, the pharmacist’s assessment of patients prior to the doctor-patient consultation is particularly important. This part of

the intervention enables the pharmacist to verify medication intake and identify drug-related problems and allows the pharmacist to increase patients' understanding of their medication. As the analysis shows, pharmacists use self-repair practices to improve the clarity of their utterances and secure the patients' understanding; this contributes to the exchange of accurate information pertinent in the context of medication safety.

The findings may contribute to the existing knowledge of pharmacists of the importance of effective communication in minimizing medication errors. Specifically, the findings may create greater awareness among pharmacists of the need to pay closer attention to language use and communication to maintain medication safety in the healthcare setting.

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## APPENDIX. Transcribing Conventions

Symbol	Description
[	Point of overlap onset
=	No break or gap
(.)	Brief interval ( $\pm$ a tenth of a second)
::	Prolongation of the immediately prior sound
-	Cut-off
↑ ↓	Shifts into high or low pitch
(0.3)	Elapsed time by tenths of seconds