Ancuța I, Anca L, Claudia S Ș, Rodica S, Fanică B, Anca D R, Ionela D F. More than Words: The Interplay between Forms of Communication and Emotional Intelligence in Pharmaceutical Care. Pharmacy Practice 2026 Apr-Jun;24(2):3524.
https://doi.org/10.18549/PharmPract.2026.2.3524

Original Research

More than Words:The Interplay between Forms of Communication and Emotional Intelligence in Pharmaceutical Care

Ancuța Iacob ,Anca Lupu , Claudia Simona Ștefan, Rodica Sandu, Fanică Bălănescu , Anca Daniela Raiciu , Ionela Daniela Ferțu

Received (first version): 19-Nov-2025 Accepted: 20-Apr-2026 Published online: 02-Jun-2026

Abstract

Background: This study investigates the impact of emotional intelligence on communication in the pharmacist-patient relationship, where effective communication is crucial to treatment outcomes and the overall therapeutic process.**Objective:** The research aimed to examine how empathy, emotional self-regulation, and social skills influence verbal, non-verbal, and paraverbal communication in community pharmacy.**Methodology:** A quantitative descriptive-correlational cross-sectional design was employed for this study. Specifically, an online questionnaire consisting of 25 items was distributed to a sample of 246 community pharmacists. Jamovi-type analyses were conducted, which included descriptive statistics, Spearman correlations, multiple linear regression, independent t-tests, and ANOVA.**Results:** The results indicated significant correlations among several variables. There was a positive correlation between empathy and the use of non-verbal communication ($\rho = 0.187$; $p = 0.003$), between emotional self-regulation and paraverbal modulation (adjustments in voice tone; $\rho = 0.245$; $p < 0.001$), and between social skills and the clarity of verbal communication ($\rho = 0.224$; $p < 0.001$). **Conclusion:** Multiple regression analyses showed that empathy and social skills predicted the clarity of verbal explanations, self-regulation predicted the use of nonverbal language, while both self-regulation and empathy predicted the adaptation of voice tone. The results emphasize the vital importance of emotional skills, particularly empathy and self-regulation, improving communication between pharmacists and patients. This analysis could be further developed and integrated into pharmacist education and ongoing professional development.

Keywords: communication, emotional intelligence, pharmaceutical care, community pharmacy, empathy

Ancuța Iacob. Lecturer Doctor, Research Centre in the Medical-Pharmaceutical Field, Department of Pharmaceutical Science, Faculty of Medicine and Pharmacy, "Dunarea de Jos" University of Galati, 800201 Galati, Romania. ancuta.dinu@ugal.ro

Anca Lupu. Lecturer Doctor, Research Centre in the Medical-Pharmaceutical Field, Department of Pharmaceutical Science, Faculty of Medicine and Pharmacy, "Dunarea de Jos" University of Galati, 800201 Galati, Romania. Anca.Ravoiu@ugal.ro

Claudia Simona Ștefan. Associate Professor Doctor, Research Centre in the Medical-Pharmaceutical Field, Department of Pharmaceutical Science, Faculty of Medicine and Pharmacy, "Dunarea de Jos" University of Galati, 800201 Galati, Romania. claudia.stefan@ugal.ro

Rodica Sandu. Student. Research Centre in the Medical-Pharmaceutical Field, Department of Pharmaceutical Science, Faculty of Medicine and Pharmacy, "Dunarea de Jos" University of Galati, 800201 Galati, Romania. rs159@studentugal.ro

Fanică Bălănescu. Lecturer Doctor. Research Centre in the Medical-Pharmaceutical Field, Department of Pharmaceutical Science, Faculty of Medicine and Pharmacy, "Dunarea de Jos" University of Galati, 800201 Galati, Romania. Fanica.Balanescu@ugal.ro

Anca Daniela Raiciu. Associate Professor Doctor, Academy of Romanian Scientists, 54 Splaiul Independentei Street, 050094 Bucharest, Romania and Faculty of Pharmacy, Titu Maiorescu University, 22 Dambovnicului Street, 040441 Bucharest, Romania. daniela_raiciu@yahoo.com

Ionela Daniela Ferțu. Associate Professor Doctor, Research Centre in the Medical-Pharmaceutical Field, Department of Pharmaceutical Science, Faculty of Medicine and Pharmacy, "Dunarea de Jos" University of Galati, 800201 Galati, Romania; danafertu2004@yahoo.com

INTRODUCTION

In current pharmaceutical practice, effective communication between the pharmacist and the patient is crucial for treatment success, patient satisfaction, and loyalty1. Owing to technological advancements and the increasing complexity of therapies, the role of the pharmacist has evolved into that of a therapeutic advisor and an active partner in healthcare, rather than merely a provider of information2,3.

To meet these new demands, pharmacists must go beyond simply transmitting information. Communication should be clear, empathetic, and tailored to each patient[4]. In addition to technical competencies, communication skills and emotional intelligence are essential[5]. Emotional intelligence—defined as the ability to understand and manage one's own emotions as well as those of others—significantly enhances pharmacist–patient interactions, fostering a relationship built on trust, respect, and collaboration[6,7].The specialized literature identifies several forms of communication relevant to pharmaceutical practice: verbal, nonverbal, and paraverbal communication[8]. In pharmacy practice, verbal communication involves the clear, concise, and complete transmission of information about medication (administration method, dosage, precautions) in language that is accessible to the patient, with understanding verified through questions and feedback[9]. Paraverbal communication refers to how words are

www.pharmacypractice.org (eISSN: 1886-3655 ISSN: 1885-642X)

spoken—the tone, volume, rhythm, and intonation—which are adjusted to the context to convey empathy, confidentiality, and seriousness where appropriate, ensuring that the voice supports the intended message[10]. Nonverbal communication includes eye contact, facial expressions, posture, gestures, and personal space—cues that convey the pharmacist's attitude and engagement and that, if not consistent with the verbal message, can either reinforce or undermine how the patient perceives it[11]. These forms of communication do not operate in isolation but rather reinforce each other in a synergy that determines the effectiveness of pharmacist–patient interactions[12].

A clear explanation of how to administer a medication must be accompanied by an appropriate tone, an open attitude, and an empathetic facial expression . If not, the message may be distorted or perceived as lacking interest or professionalism. In this complex equation, the dimensions of emotional intelligence - self-awareness, self-regulation, empathy, and social skills - become fundamental tools in shaping effective communication, as illustrated in Figure B.1[13,14]. Self-awareness helps the pharmacist recognize emotions and biases that may influence counseling and adjust tone and approach to maintain a respectful and effective dialogue[15]. Self-regulation involves controlling emotions and impulses in demanding situations (ranging from anxious patients to crowded environments), enabling the adaptation of paraverbal elements, preventing escalation, and maintaining professionalism[16,17]. Empathy is the ability to understand the patient's emotions and perspective and to respond through active listening and verbal and nonverbal cues, thereby reducing anxiety and supporting the clarity of therapeutic explanations[18,19]. Social skills operationalize the other components of emotional intelligence in daily interactions: explaining information in a way the patient can understand, adapting the conversation, tactfully managing delicate situations, and facilitating shared decision-making[20,21].

To anchor the study's theme in recent empirical evidence, the literature shows that a pharmacist's active listening—a component that integrates verbal, paraverbal, and nonverbal cues—is a robust predictor of the patient's subsequent engagement with services. In a study involving patients who had received a Home Medicines Review (N = 595), the authors validated the instruments through EFA/CFA and tested the relationships using SEM, reporting that the perception of "Listening" enhanced the perception of positive outcomes ($\beta = 0.37$; $p < 0.05$) and increased the intention to reuse the service both directly and indirectly ($\beta = 0.61$; $p < 0.05$), with the model explaining 53% of the variance in intention[22].

At the level of actual counseling practices, a naturalistic observation conducted in 45 retail pharmacies (165 interactions) employed descriptive statistics, t-tests, Pearson correlations, ANOVA, and multiple linear regression. The results indicated extremely low use of the counseling window (1.81%) and the "show-and-tell" technique (0.61%), while operational factors (number of patients in the queue, type of pharmacy chain, staff structure, and time of day) were significantly associated with both waiting time and interaction time. These findings highlight that the forms of communication recommended in guidelines are rarely implemented systematically in current practice[23].

Regarding emotional intelligence applied to pharmacy practice, a cross-sectional study (N = 352) measured EI using WLEIS and job performance using IWPQ, applying multiple linear regression. Total EI was significantly associated with workplace performance ($\beta = 0.43$; $p < 0.001$), and the correlations between EI dimensions and performance ranged from $r = 0.31$ to 0.62 ($p < 0.001$), supporting the idea that competencies in self-awareness, self-regulation, empathy, and social skills are directly relevant to the quality of patient interactions and the outcomes of pharmaceutical services[7].

The present study aims to explore how the dimensions of emotional intelligence contribute to the use of communication forms in the pharmacist–patient relationship. Unlike other research that has examined therapeutic communication or emotional intelligence separately within medical professions, this study offers an original approach by directly and quantitatively correlating emotional intelligence with the specific forms of communication used by pharmacists. The novelty also lies in applying a validated instrument for measuring emotional intelligence (the Wong & Law scale) to a sample of Romanian pharmacists, combined with an analysis of their communicative behavior, thereby providing concrete and practical empirical data.

METHODOLOGY

Study design

This paper presents a descriptive–correlational, cross-sectional study conducted online, applied exclusively to community pharmacists from two neighboring counties in Romania – Galați and Brăila – selected through a convenience (non-probabilistic) sampling method, based on their availability and consent to participate. The study captured the relationships between variables at a single point in time, without any external interventions. The questionnaire was completed in paper format, under conditions of confidentiality, directly at the participants' workplace, without interfering with their routine activity. The target group was recruited from pharmacists' social groups, professional communication groups, and alumni networks of the Faculty of Medicine and Pharmacy, Pharmacy specialization, at the "Dunărea de Jos" University of Galați, Romania. The questionnaire was configured to allow a single submission, thus eliminating the possibility of duplicate responses. The sample consisted of 246 community pharmacists, and the data collection period extended from March 1, 2025, to May 31, 2025 (three months). To be included in the study, participants had to meet the following criteria: be actively employed in community pharmacies and provide informed consent to participate. Exclusion criteria included pharmacists engaged exclusively in

Table A.1. Questionnaire Items

No.	Question	Response Options
Section I. Demographic Data		
	Your gender	Female
		Male
	Your age	< 25 years
		25 - 44 years
		45 - 65 years
		> 65 years
	Experience in the pharmaceutical field	< 1 year
		1 - 5 years
		6 - 10 years
		> 10 years
	Professional rank	Pharmacist
		Specialist Pharmacist
		Chief Pharmacist
		Pharmacy Assistant
		Student
		Other (please specify)
Secțion II. Forms of communication used in pharmacist–patient interaction		
a.	Regardless of the type of patient you are counseling, do you verbally explain, in simple terms, the information related to medication administration?	Likert scale from 1 = never to 5 = always
b.	Do you use and maintain eye contact with the patient throughout the pharmaceutical care process?	
c.	How often do you use nonverbal language (gestures, facial expressions) in communication with the patient?	
d.	Do you adjust your voice tone according to the patient's condition?	
e.	How often do you use visual or written materials in communication with the patient?	
f.	What type of feedback have you most frequently received from patients following pharmaceutical care?	Verbal
		Written
		Gestures/facial expressions
		None

Section III. Assessment of emotional intelligence dimensions, including emotional perception, self-control, use of emotions, and their regulation		
a.	How much time do you usually allocate for counseling a patient?	1-5 minutes
		5-10 minutes
		10-15 minutes
		15-30 minutes
		30-60 minutes
b.	Do you choose the patients you wish to counsel?	Yes
		No
		Sometimes
c.	What is the physical distance you maintain from the patient during counseling?	Less than 1 m
		Between 1–2 m
		More than 2 m
d.	What do you value most in a patient during counseling?	Cooperation, sociability
		Empathy
		Optimism
		Conscientiousness
		Self-confidence
		None of the above
e.	Who do you consider to be the ideal patient for you?	The attentive patient
		The cooperative patient
		The reserved, discreet patient
		The serious patient
		The bold patient
		None of the above
f.	Do you provide counseling to patients who contact you outside working hours?	Yes
		No
		Sometimes
g.	Have you most often earned patients' trust and loyalty due to:	Empathy, listening, and support provided
		Communication skills
		Ability to manage emotions
		Conflict resolution skills

a.	Has the patient's emotional state caused by their condition affected your communication with them?	Likert scale from 1 = never to 5 = always
b.	Have you had to resume the communication process due to interruptions caused by the patient's misunderstanding of the recommendations given during counseling?	
c.	Do you encourage patients to verbally ask questions about unclear recommendations?	
d.	Self-regulation vs. paraverbal communication: Do you use paraverbal communication (involving changes in tone, diction, and voice inflection) to effectively manage and control your own emotions (impulse regulation, stress control, and adaptability to change) when counseling a patient with chronic conditions?	
e.	Empathy vs. nonverbal communication: Has observing and interpreting the patient's nonverbal cues (facial expressions, gestures, eye contact, physical proximity) led you to respond appropriately to their needs and feelings?	
f.	Social skills vs. verbal communication: Do you intervene in conflict situations involving the patient during counseling, verbally or in writing, with individuals who disrupt pharmaceutical care?	
g.	Which of the following expressions best reflects your style as a pharmacist when counseling patients?	"Tone makes the music"
		"Death and life are in the power of the tongue; those who love it will eat its fruit"
		"I speak two languages, the language of the body and the Romanian language"
		"The words of a person's mouth are deep waters, but the fountain of wisdom is a rushing stream"
h.	Do you consider it useful to prepare a pharmaceutical care record after counseling each patient?	Yes
		No
		Sometimes

Table A.2. Demographic Profile of Respondents

Variable	Category	n	%
Gender	Female	220	89.4
	Male	26	10.6
Age	< 25 years	39	15.9
	25–44 years	141	57.3
	45–65 years	66	26.8
	> 65 years	0	0
Professional experience	< 1 year	60	24.4
	1–5 years	48	19.5
	6–10 years	52	21.1
	> 10 years	86	35
Professional status	Pharmacy assistant	124	50.4
	Pharmacist	100	40.7
	Other*	22	8.9*

Other categories: cosmetic operator, pharmacy students, and other related categories (as indicated in the study).

administrative activities or those without direct interaction with patients, as well as individuals who refused to complete the questionnaire.

Description of the questionnaire

For data collection, a standardized, validated questionnaire was used, consisting of 25 items grouped into four major sections, as presented in Table A.1. The items were formulated as affirmative statements and evaluated on a five-point Likert scale, ranging from "never" to "always."

Data analysis

The questionnaire results were entered and analyzed using Jamovi software (v. 2.6.44). Descriptive statistics were performed to characterize the sample and to test the normality of variable distributions. Pearson correlation coefficients and multiple linear regression analyses were used to identify relationships between variables. In addition, independent-sample t-tests and ANOVA were applied to highlight potential differences between groups (based on gender, experience, etc.). The statistical analysis specifically aimed to examine the association between the dimensions of emotional intelligence and the communication patterns used in daily practice, with a focus on verbal, nonverbal, and paraverbal behaviors.

RESULTS

Section I – Demographic Data of Participants (Items 1–4)

The participant profile (detailed in Table A.2) reveals a predominantly female sample (89.4%, n = 220). Most

Table A.3. Correlations between emotional self-regulation (paraverbal communication) and forms of communication

Variables	Pearson r	p-value	Spearman ρ	p-value
Self-regulation				
Simple verbal communication	0.126	0.049	0.151	0.018
Eye contact	0.067	0.298	0.071	0.264
Nonverbal communication	0.27	<0.001	0.264	<0.001
Voice tone adaptation	0.269	<0.001	0.249	<0.001
Use of visual/ written materials	0.196	0.013	0.202	0.001
Encouraging patient questions	0.133	0.037	0.14	0.028
Simple verbal communication				
Eye contact	0.297	<0.001	0.273	<0.001
Nonverbal communication	0.176	0.006	0.187	0.003
Voice tone adaptation	0.171	0.007	0.245	<0.001
Use of visual/ written materials	0.173	0.007	0.158	0.018
Encouraging patient questions	0.382	<0.001	0.35	<0.001
Eye contact				
Nonverbal communication	0.138	0.03	0.117	0.067
Voice tone adaptation	0.176	0.067	0.195	0.003
Use of visual/ written materials	0.218	<0.001	0.223	0.002
Encouraging patient questions	0.299	<0.001	0.278	<0.001
Nonverbal communication				
Voice tone adaptation	0.358	<0.001	0.346	<0.001
Use of visual/ written materials	0.365	<0.001	0.376	<0.001
Encouraging patient questions	0.201	0.002	0.177	0.006
Voice tone adaptation				
Use of visual/ written materials	0.33	<0.001	0.36	<0.001
Encouraging patient questions	0.117	0.067	0.135	0.118
Use of visual/written materials				
Encouraging patient questions	0.16	0.012	0.148	0.064

participants were in the 25–44 age group (57.3%), followed by those aged 45–65 (26.8%) and those under 25 years (15.9%). No respondents were over the age of 65. Professional experience varied, with a balanced distribution between respondents with less than one year and those with more than ten years of activity. In terms of professional status, pharmacy assistants predominated (50.4%), followed by pharmacists (40.7%), along with other categories such as cosmetic operator and students. These data provide a representative framework for interpreting the relationship between emotional intelligence and the forms of communication used in pharmaceutical practice.

Section II – Assessment of Communicative Behaviors (Verbal, Nonverbal, and Paraverbal) in the Relationship with Patients (Items 5-10)

The majority of respondents (79.3%, n = 195) reported that they always explain verbal information in a simple and clear manner, while 15.4% (n = 38) stated that they do so frequently (like in Figure B.2.a). Very few pharmacists indicated low or rare use of this practice (less than 5% in total), reflecting generally effective and clear verbal communication in their interactions with patients.

In Figure B.2.b. can be observed that 71.1% (n = 175) reported that they always maintain eye contact, while 22.4% (n = 55) stated that they do so frequently. The proportion of respondents who rarely or never maintain eye contact is very low (1.6%, n = 4), underscoring the importance placed on nonverbal communication through eye contact in pharmaceutical care.

24.8% (n = 61) reported always using nonverbal language, and 27.2% (n = 67) stated they use it frequently. Those who use it occasionally account for 31.3% (n = 77). The percentage of pharmacists who rarely or never use gestures and facial expressions is considerable, totaling 16.6% (n = 41), in acoord with Figure B.2.c. These results indicate substantial variation in the adoption of nonverbal communication among pharmacists.

The majority of participants (50.4%, n = 124) reported that they always adapt their voice tone, reflecting a clear awareness of the importance of paraverbal communication. 22.4% (n = 55) stated that they do so frequently. At the same time, 12.6% (n = 31) reported rarely or never adapting their voice tone, suggesting room for improvement in paraverbal skills among a segment of the participants (illustrated in Figure B.2.d.).

The use of visual or written materials shows in Figure B.2.e. A balanced distribution: 19.5% (n = 48) reported always using such materials, 27.6% (n = 68) frequently, and 32.1% (n = 79) occasionally. Meanwhile, 20.7% (n = 51) reported rarely or never using these materials, indicating an opportunity to enhance the use of visual aids in pharmaceutical communication.

80.5% (n = 198) of respondents reported receiving verbal feedback from patients most frequently. Nonverbal feedback through gestures or facial expressions was the second most common (12.2%, n = 30). The percentage of those receiving written feedback or no feedback at all was extremely low (<10%), indicating a clear patient preference for direct verbal and nonverbal communication (Figure B.2.f.).

Section III – Assessment of Emotional Intelligence Dimensions, Including Emotional Perception, Self-Control, Use of Emotions, and Their Regulation (Items 11 - 17)

The majority of professionals (52%, n = 128) allocate between 5–10 minutes per patient for counseling; 24.8% (n = 61) allocate between 10–15 minutes, reflecting a significant interest in providing detailed counseling; 17.1% (n = 42) offer brief counseling sessions of 1–5 minutes; and 6.1% exceed 15 minutes, indicating a balanced approach between quality and efficiency in counseling (Figure B.3.a).

89.4% (n = 220) reported that they do not select patients for counseling, addressing all patients equally and without discrimination. 7.7% (n = 19) stated that they sometimes select patients, while 2.9% (n = 7) reported always doing so, indicating an overall inclusive attitude in the provision of pharmaceutical services (Figure B.3.b).

52% (n = 128) prefer a distance of less than 1 meter, reflecting physical proximity that fosters communication and trust. 47.6% (n = 117) maintain a distance between 1–2 meters, also reflecting the need for comfort and respect for patients' personal space. No preferences were recorded for distances greater than 2 meters, underscoring the importance of proximity in pharmaceutical interactions (Figure B.3.c).

The most valued trait is cooperation and sociability (85.8%, n = 211), followed by empathy (36.2%, n = 89) and conscientiousness (34.6%, n = 85). Optimism (28.5%) and self-confidence (21.5%) are also appreciated, reflecting pharmacists' preference for patients who are open and actively engaged in the therapeutic process (Figure B.3.d).

82.5% (n = 203) prefer cooperative patients, 8.9% (n = 22) prefer attentive or serious patients, and less than 5% prefer reserved ones, suggesting that the ideal in pharmaceutical communication is an active patient who is engaged in dialogue (Figure B.3.e).

61.4% (n = 151) reported providing counseling outside working hours, reflecting high levels of professional involvement and motivation; 29.3% (n = 72) stated that they sometimes offer such counseling; and a smaller proportion (9.3%, n = 23) reported declining this type of involvement, indicating diversity in approaches to professional and personal boundaries (Figure B.3.f).

The most important quality identified is empathy, listening, and support (85%, n = 209), highlighting the relevance of emotional intelligence in strengthening the pharmacist–patient relationship. Other factors, such as communication skills

Table A.4. Correlations between pharmacists' empathy (nonverbal communication) and forms of communication

Variables	Pearson r	p-value	Spearman ρ	p-value
Empathy				
Simple verbal explanations	0.234***	<0.001	0.288***	<0.001
Eye contact	0.201**	0.002	0.204**	0.001
Nonverbal communication	0.231***	<0.001	0.237***	<0.001
Voice tone adaptation	0.253***	<0.001	0.248***	<0.001
Visual/written materials	0.313***	<0.001	0.273***	<0.001
Encouraging patient questions	0.279***	<0.001	0.275***	<0.001
Simple verbal explanations				
Eye contact	0.297***	<0.001	0.273***	<0.001
Nonverbal communication	0.176**	0.006	0.187**	0.003
Voice tone adaptation	0.171**	0.007	0.245***	<0.001
Visual/written materials	0.173**	0.007	0.158*	0.018
Encouraging patient questions	0.382***	<0.001	0.350***	<0.001
Eye contact				
Nonverbal communication	0.138*	0.03	0.117	0.067
Voice tone adaptation	0.176	0.067	0.195**	0.003
Visual/written materials	0.218***	<0.001	0.223**	0.002
Encouraging patient questions	0.299***	<0.001	0.278***	<0.001
Nonverbal communication				
Voice tone adaptation	0.358***	<0.001	0.346***	<0.001
Visual/written materials	0.365***	<0.001	0.376***	<0.001
Encouraging patient questions	0.201**	0.002	0.177**	0.006
Voice tone adaptation				
Visual/written materials	0.330***	<0.001	0.360***	<0.001
Encouraging patient questions	0.117	0.067	0.135	0.118
Visual/written materials				
Encouraging patient questions	0.160*	0.012	0.148	0.064

Table A.5. Correlations between social skills (verbal communication) and forms of communication

Variables	Pearson r	p-value	Spearman ρ	p-value
Social skills				
Simple verbal explanations	0.217***	<0.001	0.224***	<0.001
Eye contact	0.176**	0.006	0.109	0.088
Nonverbal communication	0.187**	0.003	0.214***	<0.001
Voice tone adaptation	0.163*	0.011	0.152*	0.017
Visual/written materials	0.175**	0.006	0.173**	0.006
Encouraging patient questions	0.275***	<0.001	0.211***	<0.001
Simple verbal explanations				
Eye contact	0.297***	<0.001	0.273***	<0.001
Nonverbal communication	0.176**	0.006	0.187**	0.003
Voice tone adaptation	0.171**	0.007	0.245***	<0.001
Visual/written materials	0.173**	0.007	0.158*	0.018
Encouraging patient questions	0.382***	<0.001	0.350***	<0.001
Eye contact				
Nonverbal communication	0.138*	0.03	0.117	0.067
Voice tone adaptation	0.176	0.067	0.195**	0.003
Visual/written materials	0.218***	<0.001	0.223**	0.002
Encouraging patient questions	0.299***	<0.001	0.278***	<0.001
Nonverbal communication				
Voice tone adaptation	0.358***	<0.001	0.346***	<0.001
Visual/written materials	0.365***	<0.001	0.376***	<0.001
Encouraging patient questions	0.201**	0.002	0.177**	0.006
Voice tone adaptation				
Visual/written materials	0.330***	<0.001	0.360***	<0.001
Encouraging patient questions	0.117	0.067	0.135	0.118
Visual/written materials				
Encouraging patient questions	0.160*	0.012	0.148	0.064

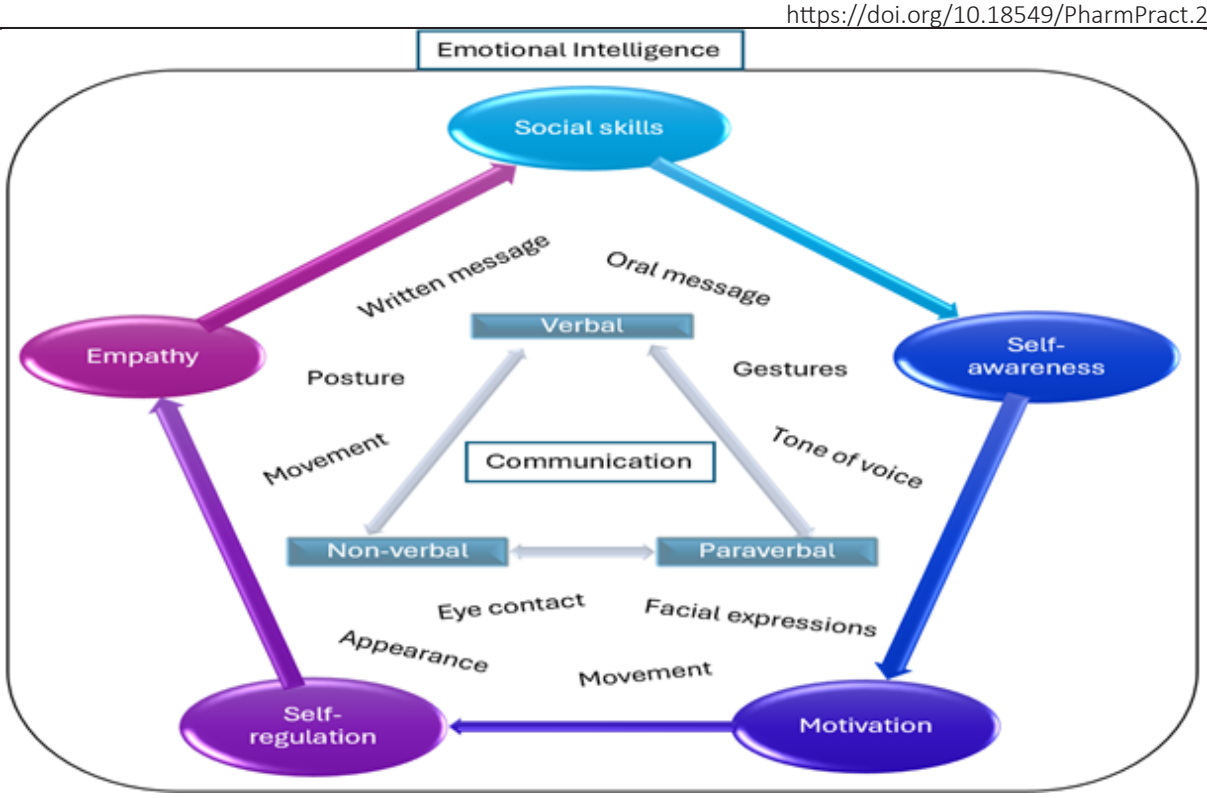
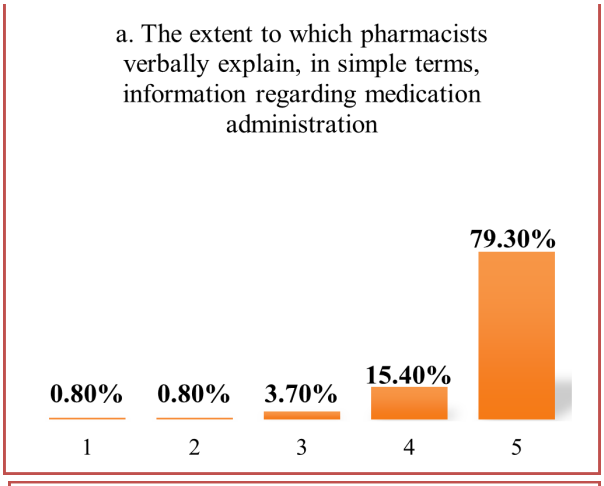
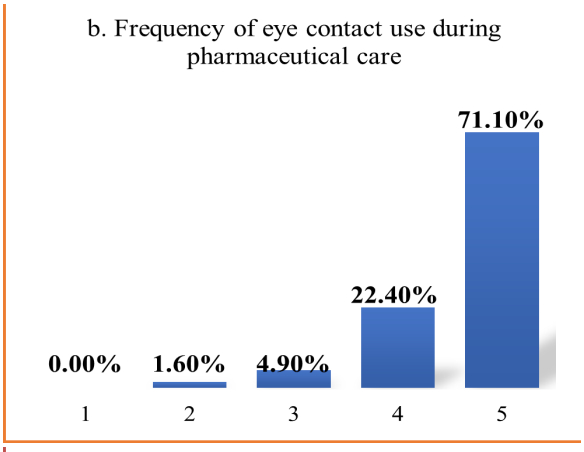
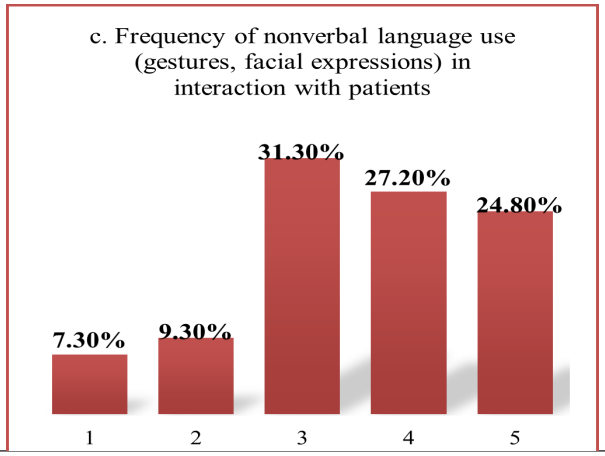
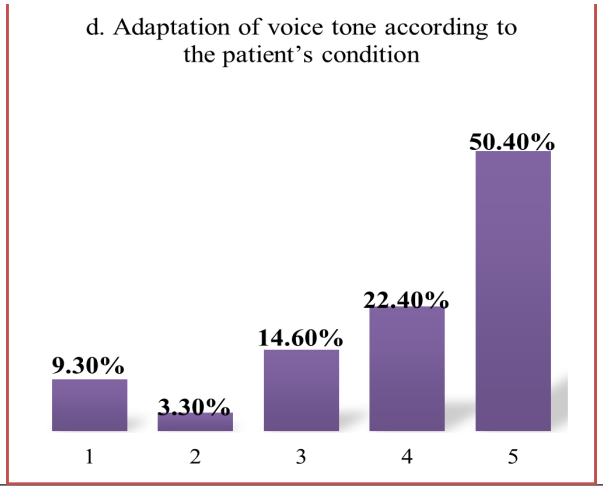


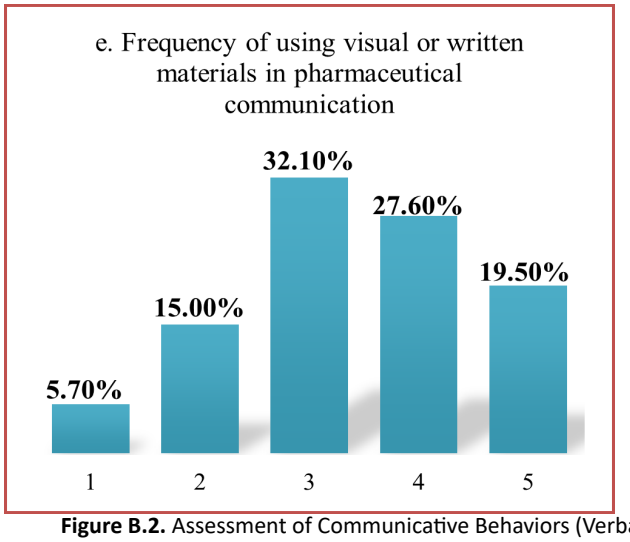
Figure B. 1. The synergy of communication forms and their relationship with the dimensions of emotional intelligence (modified and adapted from14)











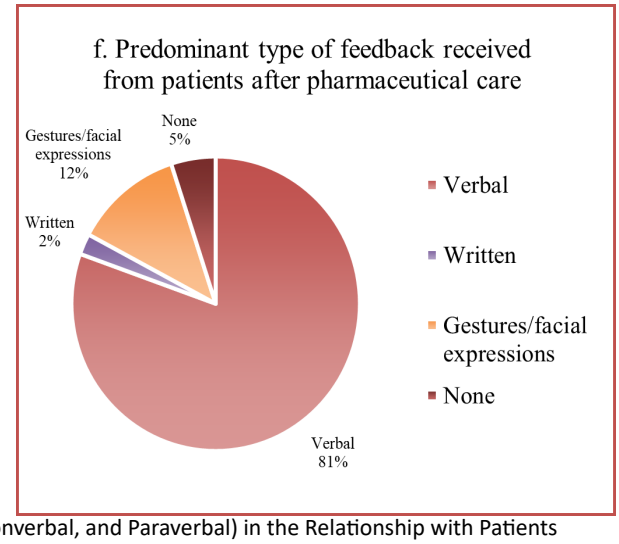
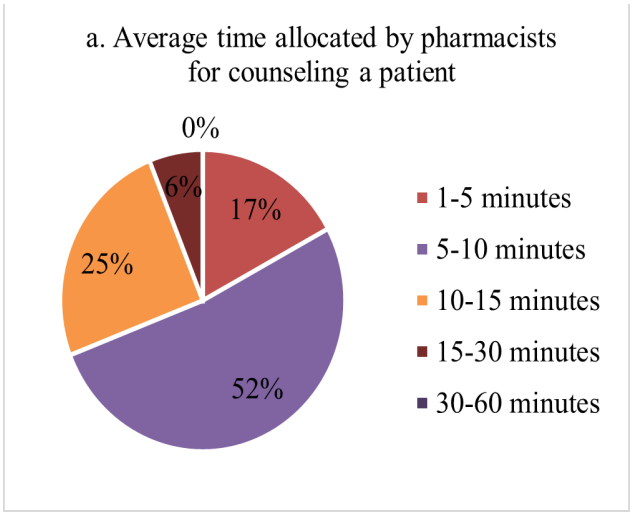
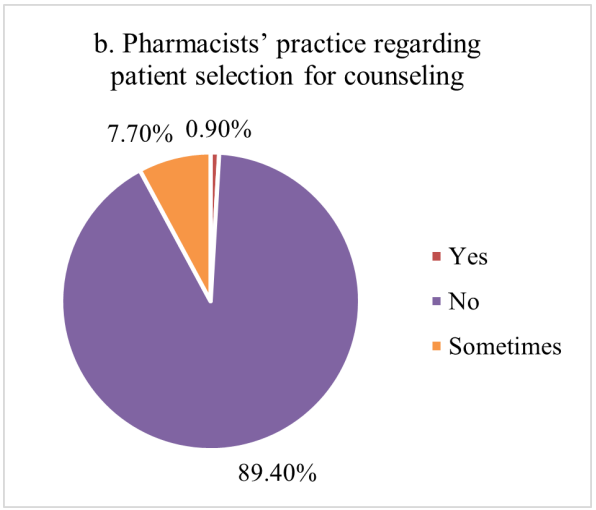
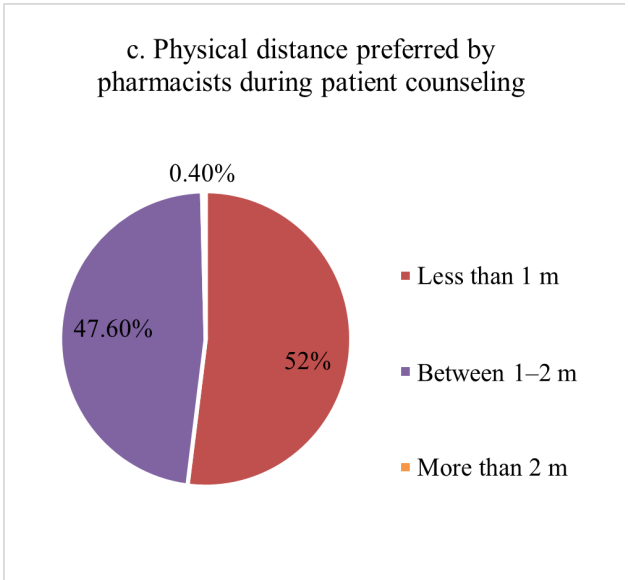


Figure B.2. Assessment of Communicative Behaviors (Verbal, Nonverbal, and Paraverbal) in the Relationship with Patients







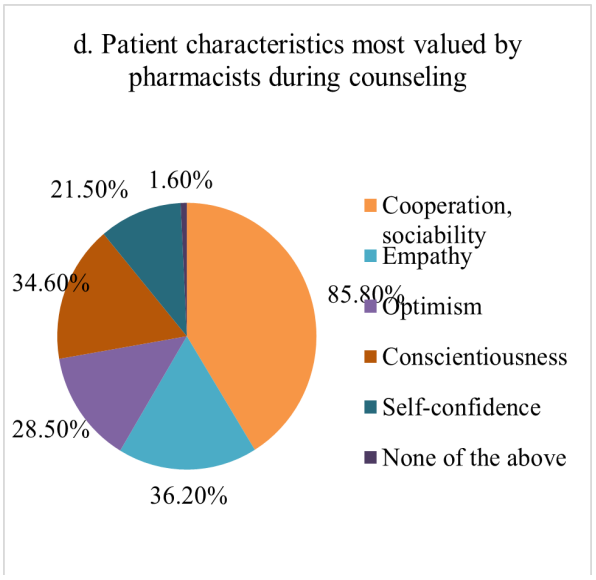


Table A.6. Results of the multiple linear regression analysis on the influence of emotional intelligence dimensions: a. the clarity of pharmacists' verbal explanations; b. maintaining eye contact with patients; c. the use of nonverbal language in pharmacist–patient communication; d. the adaptation of voice tone in the pharmacist–patient relationship; e. the use of visual and written materials in pharmacist–patient communication

a. Model Coefficients – 5_VerbalExplanations				
Predictor	**Estimate**	**SE**	**t**	**p**
Intercept	3.9446	0.1807	21.832	<.001
21_Self_regulation_ Paraverbal	-0.0172	0.038	-0.453	0.651
22_Empathy_Nonverbal	0.1216	0.0459	2.647	0.009
23_Social_skills_Verbal	0.0969	0.041	2.364	0.019
b. Model Coefficients – 6_VisualContact				
Predictor	**Estimate**	**SE**	**t**	**p**
Intercept	3.992	0.1835	21.75	<.001
21_Self_regulation_ Paraverbal	-0.0436	0.0386	-1.13	0.26
22_Empathy_Nonverbal	0.1227	0.0467	2.63	0.009
23_Social_skills_Verbal	0.0841	0.0416	2.02	0.044
c. Model Coefficients – 7_NonverbalLanguage				
Predictor	**Estimate**	**SE**	**t**	**p**
Intercept	2.147	0.3228	6.65	<.001
21_Self_regulation_ Paraverbal	0.1709	0.0679	2.52	0.012
22_Empathy_Nonverbal	0.1241	0.0821	1.51	0.132
23_Social_skills_Verbal	0.0844	0.0732	1.15	0.25
d. Model Coefficients – 8_VoiceTone				
Predictor	**Estimate**	**SE**	**t**	**p**
Intercept	2.4978	0.3506	7.124	<.001
21_Self_regulation_ Paraverbal	0.1787	0.0737	2.423	0.016
22_Empathy_Nonverbal	0.1818	0.0892	2.039	0.043
23_Social_skills_Verbal	0.051	0.0795	0.641	0.522
e. Model Coefficients – 9_VisualMaterials				
Predictor	**Estimate**	**SE**	**t**	**p**
Intercept	1.8815	0.3087	6.095	<.001
21_Self_regulation_ Paraverbal	0.0293	0.0649	0.451	0.653
22_Empathy_Nonverbal	0.2975	0.0785	3.79	<.001
23_Social_skills_Verbal	0.0686	0.07	0.979	0.328

Table A.7.a. Results of the independent-samples t-test on gender differences in the dimensions of emotional intelligence; **b.** Results of the ANOVA analysis on differences in the use of communication forms based on professional experience

a. Independent Samples T-Test			**Statistic**	**df**	**p**
21	**Emotional_ self_ regulation**	**Student's t**	0.214	244	0.831
22	**Empathy**	**Student's t**	1.283	244	0.201
23	**Social_skills**	**Student's t**	1.957	244	0.051
b. One-Way ANOVA (Welch's)		**F**	**df1**	**df2**	**p**
5	**Clarity_of_ explanations**	0.833	3	121	0.478
8	**Voice_tone**	3.005	3	120	0.033
20	**Excouraging_ patients_to_ ask_questions**	1.047	3	122	0.374

(12.2%) and emotion management, appear with significantly lower frequency, underscoring empathy as an essential dimension of an effective pharmaceutical relationship (Figure B.3.g).

Section IV – Interaction between forms of communication and emotional intelligence in pharmaceutical care (Items 18 - 25)

39% (n = 96) stated that the patient's emotional state had a moderate influence on their communication relationship. A substantial combined percentage of 39.1% indicated a low level of influence, while 22% reported a high influence. These results reflect pharmacists' awareness of the impact of patients' emotions on the communication process (Figure B.4.a).

46.7% (n = 115) reported that this occurred occasionally; 25.6% stated that they had to resume communication quite frequently; and 27.7% reported doing so rarely or very rarely. These data indicate the relatively frequent presence of communication barriers and underscore the need to develop clear strategies for clarifying and confirming the information provided to patients (Figure B.4.b).

66.7% (n = 164) always encourage patients to ask questions, with an additional 23.6% doing so frequently. 3.2% do not place importance on this practice. This reflects pharmacists' proactive and open approach to ensuring clear and effective communication (Figure B.4.c).

Approximately 53.3% reported frequently or always using paraverbal communication for emotional self-regulation; 24.4% indicated a moderate frequency; and 22.4% reported rarely or never using this strategy. The results highlight significant recognition of the value of emotional self-regulation through paraverbal communication in challenging situations (Figure

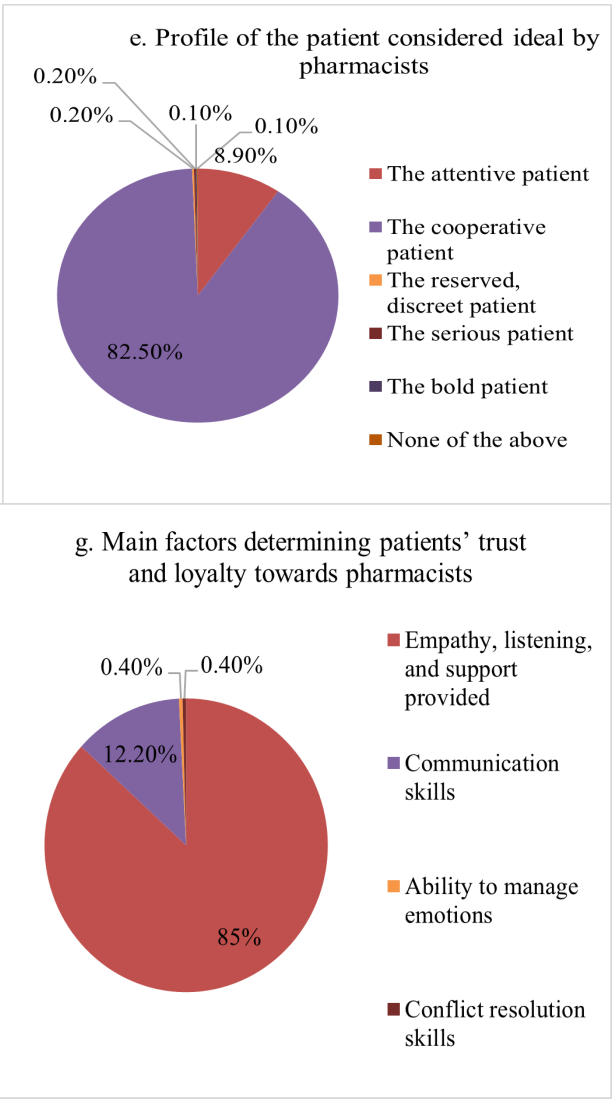
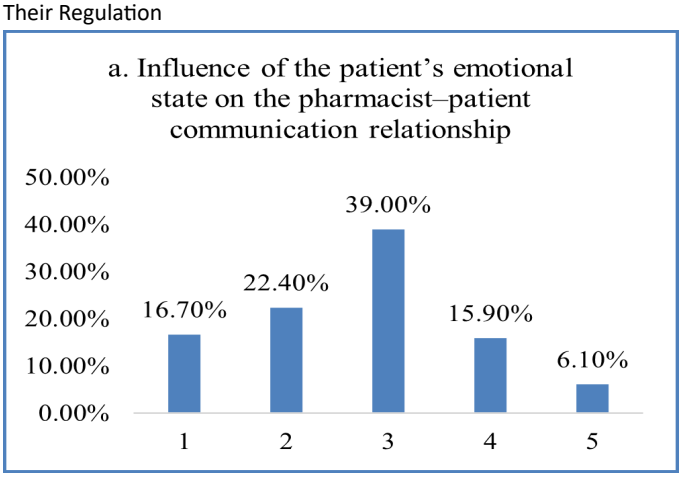
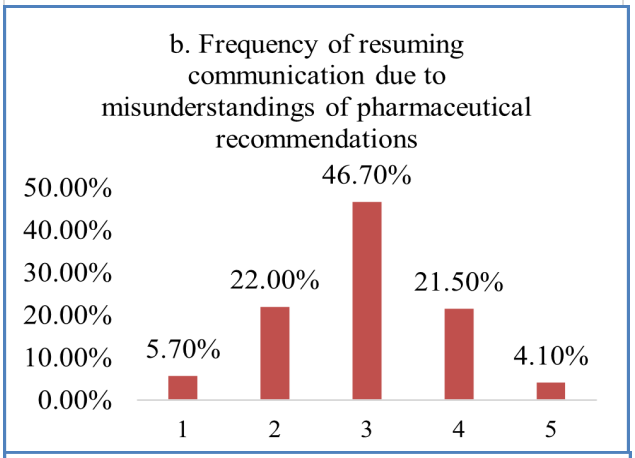
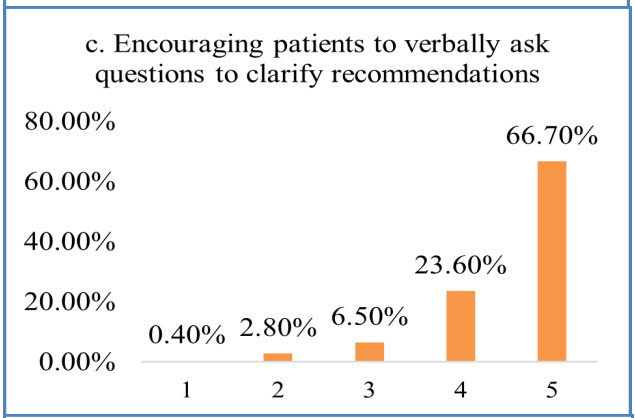
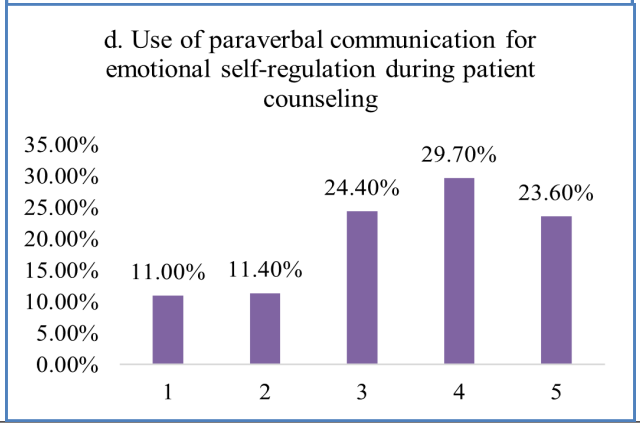


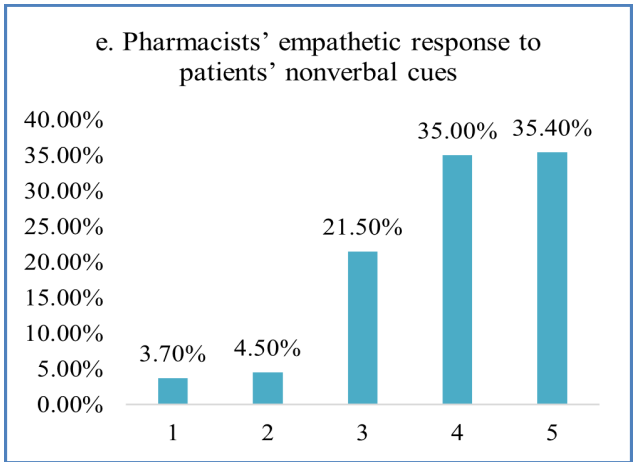
Figure B.3. Assessment of Emotional Intelligence Dimensions, Including Emotional Perception, Self-Control, Use of Emotions, and Their Regulation

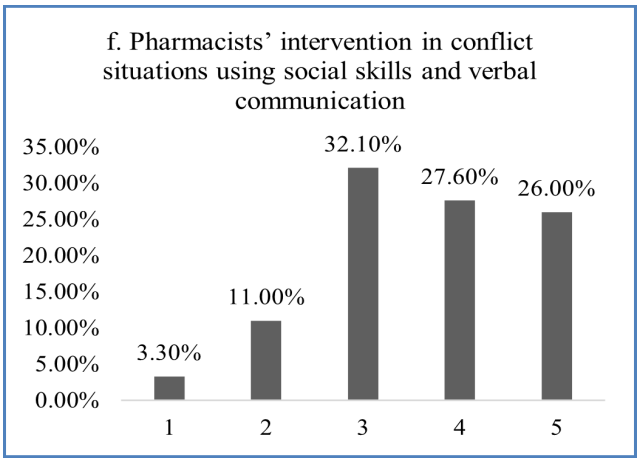


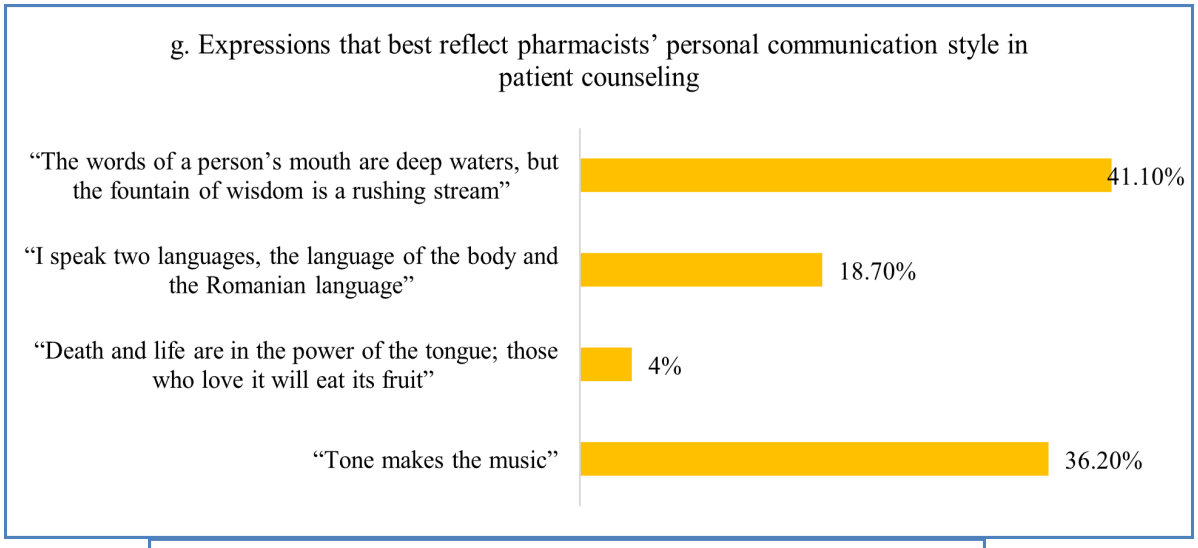












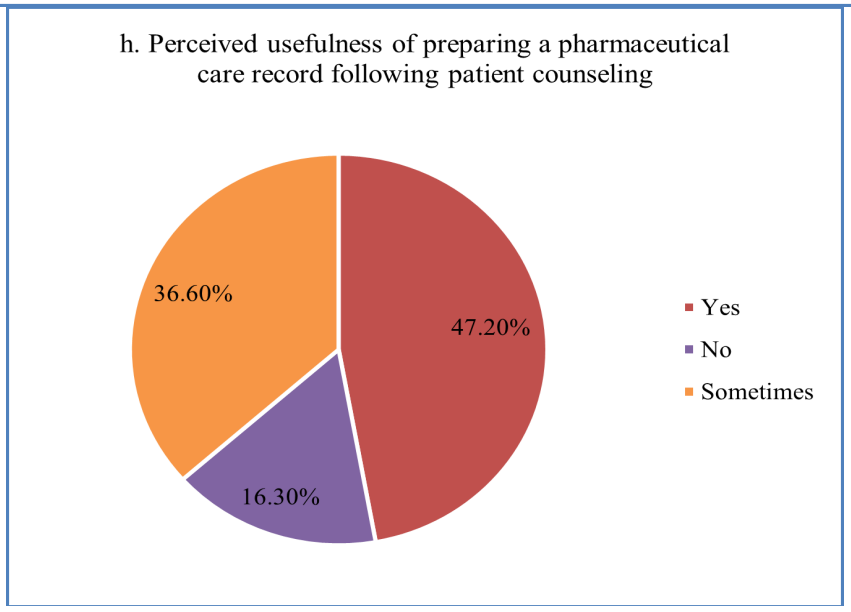


Figure B.4. Interaction between forms of communication and emotional intelligence in pharmaceutical care

B.4.d).

70.4% reported using nonverbal communication and empathy to understand and respond to patients, while 8.2% stated that they rarely use these strategies. This indicates a high level of empathy among pharmacists, demonstrating their ability to adapt interactions to patients' emotional needs (Figure B.4.e).

32.1% (n = 79) reported occasionally intervening in conflict situations using social skills and verbal communication. 53.6% stated that they intervene quite frequently or always, indicating high levels of social skills and confidence in conflict management. 14.3% avoid involvement in such situations, reflecting overall good professional confidence and preparedness in addressing conflicts (Figure B.4.f).

The most frequently preferred expression was "The words of a person's mouth are deep waters, but the fountain of wisdom is a rushing stream" (41.1%), followed by "Tone makes the music!" (36.2%). These results reflect pharmacists' orientation toward the importance of depth and sensitivity in communication with patients, highlighting the decisive role of how information and emotions are conveyed (Figure B.4.g).

47.2% considered it always useful to prepare a record for each patient, 36.6% regarded this practice as useful only sometimes, and 16.3% did not consider it necessary. These results highlight the importance placed on documenting and monitoring recommendations, while also reflecting a diversity of approaches to formalizing counseling (Figure B.4.h).

The interpretation of these findings clearly underscores the positive influence of emotional intelligence dimensions on pharmaceutical communication and identifies areas where practical interventions could be developed to support the continuous improvement of pharmacist–patient communication.

Spearman correlational analysis

Emotional self-regulation and paraverbal communication

At this stage of the research, the relationship between pharmacists' emotional self-regulation – defined as the ability to manage and control their own emotions through elements of paraverbal communication (tone, diction, inflections) – and the various forms of communication used in interactions with patients (simple verbal communication, nonverbal communication through gestures and facial expressions, adaptation of voice tone, use of visual and written materials, and encouraging patients to ask questions) was analyzed. To identify these relationships, Spearman's correlational analysis was applied (Table A.3) using the Jamovi statistical software, with the aim of assessing the strength and significance of the associations between the investigated variables.

The relationship between pharmacists' emotional self-regulation and the forms of communication with patients was examined. The results indicate:

- Simple verbal explanations: weak positive correlation (ρ = 0.151, p = 0.018) – good self-regulation supports message clarity in verbal communication.
- Nonverbal language: moderate correlation (ρ = 0.264, p < 0.001) – emotional control enhances gestural expressiveness.
- Adaptarea vocii: corelație moderată (ρ = 0,249, p < 0,001) – o voce adaptată emoțional îmbunătățește comunicarea;
- Visual/written materials: weak correlation (ρ = 0.202, p = 0.001).
- Encouraging questions: moderate correlation (ρ = 0.350, p < 0.001).

The results support the hypothesis that emotional self-regulation plays an essential role in facilitating and optimizing pharmacist–patient communication, particularly in the use of nonverbal and paraverbal communication, as well as in encouraging interaction and clarification of information needed by the patient.

Empathy and nonverbal communication

This stage of the research focused on analyzing the correlations between pharmacists' level of empathy—expressed through the ability to accurately observe and interpret patients' nonverbal signals (facial expressions, gestures, eye contact, physical proximity)—and the main forms of communication used in the pharmacist–patient relationship, such as the clarity of verbal explanations, maintaining eye contact, use of nonverbal language, adaptation of voice tone, integration of visual materials, and encouraging patients to ask questions. To evaluate these relationships, Spearman's correlational analysis (Table A.4) was applied using the Jamovi statistical software, allowing the determination of the strength and significance of the associations between the studied variables.

The relationship between empathy and the forms of communication was examined:

- Clear explanations: moderate correlation (ρ = 0.288, p < 0.001).
- Eye contact: moderate correlation (ρ = 0.204, p = 0.001).
- Nonverbal language: weak-to-moderate correlation (ρ = 0.187, p = 0.003).
- Voice adaptation: moderate correlation (ρ =

0.245, p < 0.001).

- Visual materials: weak correlation (ρ = 0.158, p = 0.013).

- Encouraging questions: moderate-to-strong correlation (ρ = 0.350, p < 0.001).

The results indicate that empathy is a fundamental pillar of pharmacist–patient communication, showing positive and significant correlations with all the forms of communication analyzed.

Social skills and verbal communication

This section analyzed the relationship between pharmacists' social skills—reflected in their ability to communicate verbally in an effective manner during conflictual or complex situations arising in patient counseling—and the forms of communication used in these interactions (such as providing clear verbal explanations, maintaining eye contact, using nonverbal language, adapting voice tone, integrating visual materials, and encouraging patients to ask questions). To examine these associations, Spearman's correlational analysis was applied in the Jamovi software (Table A.5), allowing for the identification of the strength and statistical significance of the relationships between the investigated variables.

The relationship between social skills and effective communication was examined:

- Clear explanations: moderate correlation (ρ = 0.224, p < 0.001)

- Nonverbal language: moderate correlation (ρ = 0.214, p = 0.001).

- Voice adaptation: moderate correlation (ρ = 0.195, p = 0.002).

- Visual/written materials: moderate correlation (ρ = 0.223, p < 0.001).

- Encouraging questions: moderate-to-strong correlation (ρ = 0.278, p < 0.001).

These results confirm the central role of social skills in optimizing and facilitating all forms of pharmacists' communication, substantially improving the quality of the pharmacist–patient relationship.

Multiple linear regression analysis

At this stage of the research, a multiple linear regression analysis was conducted with the aim of investigating the extent to which the dimensions of emotional intelligence—emotional self-regulation, empathy, and social skills—can predict the effective use of communication forms in the pharmacist–patient relationship. More specifically, the analysis sought to determine which of these dimensions exert a significant influence on the verbal, nonverbal, and paraverbal communication practiced by pharmacists in their interactions with patients.

The analysis was performed using the Jamovi statistical software, applying the multiple linear regression procedure.

The main objectives of this analysis were to identify the dimension of emotional intelligence with the strongest predictive effect on communication forms and to assess the extent to which emotional self-regulation, empathy, and social skills explain the variance in the use of communication strategies in the pharmacist–patient context.

Overall, this stage of the research explores the predictive potential of the three dimensions of emotional intelligence in relation to the effective use of verbal, nonverbal, and paraverbal communication in pharmacists' professional practice.

In Table A.6 are presented the results of the multiple linear regression analysis on the influence of emotional intelligence dimensions:

a. on the clarity of pharmacists' verbal explanations (Emotional self-regulation → no significant influence; Empathy → positive and significant influence; Social skills → positive and significant influence);

b. on maintaining eye contact with patients (Emotional self-regulation → not significant; Empathy → significant positive; Social skills → significant positive);

c. on the use of nonverbal language in pharmacist–patient communication (Emotional self-regulation → significant positive influence; Empathy → not significant; Social skills → not significant);

d. on the adaptation of voice tone in the pharmacist–patient relationship (Emotional self-regulation → significant predictor; Empathy → significant predictor; Social skills → not significant);

e. on the use of visual and written materials in pharmacist–patient communication (Emotional self-regulation → not significant; Empathy → strong, significant influence; Social skills → not significant).

Therefore, empathy and social skills contribute significantly to the clarity of explanations provided by pharmacists to patients and are relevant predictors in maintaining effective eye contact with the patient. Only emotional self-regulation has a significant impact on the use of nonverbal language. Emotional self-regulation and empathy positively influence the adaptation of voice tone to the patient's needs. Also, empathy is a significant predictor for the use of visual and written materials to support

www.pharmacypractice.org (eISSN: 1886-3655 ISSN: 1885-642X)

communication.

The results of the multiple linear regression analysis clearly indicate that empathy is a significant predictor for most of the communication forms analyzed (verbal explanations, eye contact, adaptation of voice tone, and use of visual materials); emotional self-regulation significantly influences the use of nonverbal language and the adaptation of voice tone and social skills are relevant for providing clear verbal explanations and maintaining eye contact.

These findings support the importance of developing emotional intelligence among pharmacists, as it has a direct effect on the quality and effectiveness of communication with patients.

Independent-samples t-test and one-way ANOVA test

This stage of the research aimed to identify possible significant differences between sociodemographic groups of pharmacists, based on gender and professional experience, regarding the dimensions of emotional intelligence and the forms of communication used in interactions with patients. The analysis was carried out by applying the independent-samples t-test (for the gender variable) and the one-way ANOVA test (for professional experience).

The results of the independent-samples t-test (Table A.7.a) on gender differences in the dimensions of emotional intelligence showed that from the perspective of emotional self-regulation ($t = 0.214$, $p = 0.831$) – no significant differences were identified between female and male pharmacists; gender does not influence the ability to manage emotions.Regarding on the one hand empathy ($t = 1.283$, $p = 0.201$) – no statistically significant differences in the level of empathy were found based on gender, and on the other hand social skills ($t = 1.957$, $p = 0.051$) – the result is close to the significance threshold, suggesting a tendency for female pharmacists to exhibit slightly higher levels of social skills compared to male pharmacists.

Results of the ANOVA analysis (Table A.7.b) on differences in the use of communication forms based on professional experience highlighted the importance of the voice tone adaptation ($F = 3.005$, $p = 0.033$) – the differences are statistically significant, suggesting that pharmacists with varying levels of experience adjust their voice tone differently. A post-hoc test (e.g., Tukey) is recommended to identify the groups between which these differences occur. In the analysis of clear verbal explanations ($F = 0.833$, $p = 0.478$) – no significant differences were found based on professional experience; the clarity of explanations remains consistent regardless of seniority. Also, encouraging patients to ask questions ($F = 1.047$, $p = 0.374$) – professional experience does not significantly influence this practice. Statistical analyses have shown that emotional intelligence, especially empathy and emotional self-regulation, significantly influences the quality of pharmacist-patient communication.

Empathy is associated with clear explanations, consistent eye contact, and the use of visual materials, while emotional self-regulation contributes to voice tone adaptation and nonverbal communication. Social skills support message clarity and effective interaction. Professional experience influences voice tone adaptation, whereas gender does not produce significant differences, with a slight tendency in favor of women regarding social skills.

DISCUSSIONS

The results of this research provide valuable insights into the direct and significant influence of emotional intelligence on pharmacist–patient communication, highlighting its role as an essential factor in the quality of therapeutic care and the effectiveness of pharmaceutical services. These findings have concrete and applicable implications both at the individual and organizational levels for professionals in the pharmaceutical field.

First, the identification of empathy as a central component in shaping most forms of communication underscores the need to promote and develop this emotional dimension in pharmaceutical practice. Empathetic pharmacists provide clear explanations, maintain appropriate eye contact, and adapt therapeutic messages to the emotional and cognitive needs of patients. Therefore, it is recommended to implement continuous training programs that include practical exercises such as role-playing, case simulations, and interpersonal communication training sessions.

Second, emotional self-regulation has proven essential for improving nonverbal and paraverbal communication. Pharmacists' ability to control their emotions positively influences the adaptation of voice tone and the use of deliberate gestures, contributing to the delivery of a therapeutic message that is both persuasive and easily accepted. Therefore, it is important for pharmacies to promote training in stress management techniques, mindfulness, and emotional self-control to enhance the quality of interactions with patients.

Additionally, the relevance of social skills indicates that pharmacists should be supported in developing competencies for building effective relationships and managing conflict situations. Pharmacists with strong social skills communicate more effectively, avoid conflicts, and enhance patient satisfaction. The periodic organization of workshops and training sessions focused on interpersonal communication, conflict resolution, and leadership can bring significant benefits.

From the perspective of professional experience, the results showed that pharmacists with more experience adapt their voice tone more effectively according to the therapeutic and emotional context of the patient. This highlights the importance of mentorship and peer experience sharing to facilitate the development of communication skills among those at the

beginning of their careers. Implementing structured mentorship and coaching programs can thus accelerate integration and performance in practice.

Regarding gender differences, although no statistically significant differences were identified, the observed tendency for more developed social skills among female pharmacists suggests the existence of particularities that merit further investigation. This may represent an opportunity to leverage gender diversity within pharmaceutical teams to optimize communication and interaction with patients.

The main hypothesis emphasizes that pharmacists with higher emotional intelligence are better able to adapt their communication to patients' needs, building stronger relationships. Thus, empathy translates into active listening and accurate interpretation of nonverbal language, emotional self-regulation helps maintain a calm tone even in difficult situations, and social skills contribute to managing complex conversations. The data obtained in this research confirm these hypotheses. It was observed that pharmacists with high empathy maintain frequent eye contact, use congruent nonverbal language, and adapt their voice tone to the patient's emotional state. Furthermore, emotional self-regulation is linked to effective paraverbal communication, while social skills influence the clarity of the verbal message and the ability to provide constructive feedback.

The research provides strong arguments for integrating emotional intelligence into the training and continuous professional development of pharmacists. In practice, these results support the need to develop dedicated educational and managerial strategies aimed at improving the quality of pharmaceutical care, increasing patient satisfaction, and strengthening public trust in the pharmacy profession. In this way, pharmacists can become more effective, empathetic professionals who are better prepared to respond to the complex needs of patients.There are previous studies in the literature that are relevant and comparable to the present study, both in the field of communication during pharmaceutical care and in the field of communication during medical care, which explore the interaction between EI and various forms of communication that have a direct impact on patient care. This research emphasizes that EI is not only a general skill, but also a factor that shapes the way medical and pharmaceutical professionals use verbal, nonverbal, and paraverbal communication to obtain positive feedback from patients.

For example, Al-Aqeel et al., in their paper, demonstrate and emphasize a significant correlation between pharmaceutical competencies (verbal and nonverbal communication, IE, personal attractiveness) and the quality of pharmaceutical services, using univariate and bivariate statistical analysis methods of responses obtained from adult pharmacy patients who participated in the questionnaire. The authors note that IE, effective communication, and interpersonal attractiveness positively influence patient satisfaction and adherence to treatment. Nonverbal communication also showed the highest correlation coefficient in service quality, with a significance threshold of $p<0.001$[13].

Another study, in the field of pharmaceutical care, belongs to the authors Zarate-Torres R et al, and describes a qualitative analysis of clinical pharmacists' perceptions of the importance and use of EI. The results of the study show that a number of EI competencies or dimensions, such as empathy, tolerance, understanding, emotional self-control, self-awareness, and awareness of others, are perceived as necessary for success in interactions with patients and in the challenges of clinical practice[6].

In the medical field, authors Miao C et al published an analysis of 83 articles in 2021 with the aim of identifying the relationship between doctor-patient and EI. Thus, it has been scientifically proven that EI is a basic skill for healthcare professionals as it promotes empathetic connections that can prevent a number of complications related to stress and professional burnout[24].

Therefore, both this paper and those identified in the literature emphasize the importance of IE in the process of communicating with patients, as they are interdependent: an improvement in IE leads to increased treatment adherence, patient satisfaction, and effective counseling[25]. From the perspective of patient counseling, high EI leads to effective communication, going beyond the simple transmission of information about medications, through empathy and active listening, clarity, and appropriate language[26]. With regard to treatment adherence, the pharmacist's or doctor's empathy plays a crucial role in overcoming emotional and communication barriers, such as those related to lack of motivation, denial of chronic illness, fear, and mistrust[27]. Patient satisfaction is closely linked to the quality of interaction between patients and medical or pharmaceutical staff. Patients who feel listened to and respected by self-controlled pharmacists express a high level of satisfaction. Therefore, improving the EI of pharmaceutical specialists demonstrates a better understanding of patients' needs, which leads to greater adherence to treatment and an improved perception of the profession[28].

However, there are a number of limitations that can affect IE in relation to communication with the patient. For example, confounding factors, both internal and external, such as professional experience, stress, heavy workload, the patient's socioeconomic status and level of health education, a work environment that limits privacy in the pharmacy, or a noisy counseling space, directly influence the quality of interaction and adherence to treatment, regardless of the pharmacist's level of empathy[29]. Other limitations highlight issues related to measuring EI and study design. Due to the existence of multiple forms of EI, such as abilities vs. traits, it is difficult to compare studies that use different methods. Reliance on self-reporting

www.pharmacypractice.org (eISSN: 1886-3655 ISSN: 1885-642X)

can lead to inaccurate results, especially when pharmacists tend to overestimate their abilities[30]. Other studies emphasize that IE is influenced by length of professional experience or age, thus indicating a problem of generalizability when comparing different demographic groups[7,31].

CONCLUSIONS

The research examined the impact of emotional intelligence dimensions—empathy, emotional self-regulation, and social skills—on pharmacist–patient communication, demonstrating that it is essential for effective communication and patient satisfaction. Professional experience influences the ability to adapt communication, while gender has no significant impact. It is recommended to integrate emotional intelligence into continuous professional training through programs in training, mentoring, and periodic evaluations, in order to improve the therapeutic relationship and the quality of pharmaceutical services. For the future, proposed directions include longitudinal studies, expanding samples to the national level, investigating organizational factors, integrating qualitative methods, and evaluating the impact of emotional intelligence on therapeutic outcomes. Developing this competence becomes crucial for the professionalism of pharmacists and for transforming community pharmacy into a space of empathy and genuine understanding between patient and specialist. In conclusion, this study can contribute to improving the performance of pharmacists, implicitly their level of emotional intelligence, and can serve as a basis for future practical implications focused on education and university curricula, continuing professional development, and pharmaceutical policies and regulations. The introduction of modules focused on communication psychology, empathy, and patient-pharmacist-doctor interaction, which also include models of emotional intelligence, such as the Goleman model, could subsequently be applied in the patient counseling stage. The development of training courses for emotional self-regulation would help pharmaceutical professionals manage stress and professional burnout in order to maintain their empathy in interactions with patients. Developing policies that extend the time for patient counseling and financially recognize counseling services could be another area in which pharmacists should invest their time and emotional intelligence. These practical implications create a framework that encourages, rewards, and enables the application of emotional intelligence in everyday pharmaceutical practice.

AUTHORSHIP CONTRIBUTION

Rodica Sandu, Ancuța Iacob: Methodology, Investigation, Data curation, Writing – original draft, Visualization. Ionela Daniela Ferțu, Fanica Bălănescu: Software, Formal analysis, Investigation, Data curation, Writing – original draft, Visualization. Anca Ravoiu: Methodology, Investigation, Writing – original draft, Visualization. Claudia Simona Stefan, Anca Daniela Raiciu: Conceptualization, Methodology, Validation, Investigation, Resources, Writing – review & editing, Supervision.

References

1. Jalal Z, Cox A, Goel N, Vaitha N, King K, Ward J. Communications Skills in the Pharmacy Profession: A Cross Sectional Survey of UK Registered Pharmacists and Pharmacy Educators. Pharmacy. 2018 Dec 12;6(4):132.
2. Rusu A, Chereches MC, Popa C, Botezatu R, Lungu IA, Moldovan OL. Community pharmacist's perspective regarding patient-centred communication in conjunction with pharmaceutical practice: A cross-sectional survey. Saudi Pharm J. 2022 Sep;30(9):1327–44.
3. Mohd Salim NA, Roslan NS, Hod R, Zakaria SF, Adam SK. Exploring critical components of physician-patient communication: a qualitative study of lay and professional perspectives. In: Healthcare. MDPI; 2023. p. 162.
4. Fried TR, Ouyang N, Gnjidic D, Green A, Hilmer S, Holmes HM, et al. Communication as a key component of deprescribing: Conceptual framework and review of the literature. J Am Geriatr Soc. 2025 Mar;73(3):717–27.
5. Mottelson NB, Husted GR, Kaae S, Rossing CV, Fosgerau CF. Changes in community pharmacy communication – Towards emotional awareness at the pharmacy counter. PEC Innov. 2025 Jun;6:100380.
6. Senćanski D, Tadić I, Jocić D, Marinković V. Perceived importance of emotional intelligence for clinical pharmacy practice and directions for its improvement: a focus group study [Internet]. 2024 [cited 2025 Aug 7].
7. Almogbel YS, Alsalloum MA, Almadi RS, Almazyad AA, Garwan YM, Alregaibah RA. Relationship between Pharmacists' Emotional Intelligence and Job Performance: A Cross-Sectional Study in Saudi Arabia. Pharmacy. 2024 Sep 25;12(5):145.
8. Kapur R. The types of communication. MIJ. 2020;6.
9. Buiko M. Verbal communication. 2025;
10. Baidan CM. Emoticons and Emojis, Paraverbal Elements in Social Media Communication (A Semiopragmatic Analysis). Study Science and Culture. 2025;21(2).
11. Yusuf T. Nonverbal Communication and its Effects on Human Relations: An Analysis from Surah Luqman. QiST J Quran Tafseer Stud. 2025;4(1):139–50.
12. Keshtkar L, Bennett-Weston A, Khan AS, Mohan S, Jones M, Nockels K, et al. Impacts of communication type and quality on patient safety incidents: A systematic review. Ann Intern Med. 2025;178(5):687–700.
13. Susanto A, Sari AA, Purwantingrum H, Rashid N. Communication Competence, Emotional Intelligence and Interpersonal Attractiveness of Pharmaceutical Workers in the Quality of Drug Services.
14. Blaik R, Litz D, Ali N, Azaza M, Parkman S. Emotional Intelligence Dimensions and Professional Standards: Trajectories for

Building Capacities for School Improvement. Leadersh Policy Sch. 2023 Oct 2;22(4):825–56.
15. Zavadskiy SP, Materenchuk MY, Sologova SS, Bazanova GY, Kashapov MM, Korol LA, et al. Metacognitive awareness of pharmacists at different stages of the educational continuum: a comparative study. In Frontiers Media SA; 2025. p. 1503034.
16. Graham MR, Hardinger KL. Intrinsic Motivation and Learning Strategies: Their Impact on Pharmacy Students' Academic Performance and Standardized Exams. Med Res Arch. 2025;13(4).
17. Rostami B, Zolghadri P, Ojaghloo M, Yazdinezhad A, Khaleghi F. Design and Production of Interactive E-Learning Content Based on Need Assessment and its Impact on Self-Regulation Learning and Academic Performance of Pharmacy Students. Res Med Educ. 2025;17(3):59–69.
18. Graabæk T, Rasmussen AJ, Mai AM, Rossing C, Andersen MKK, Hedegaard U. Pharmacists' empathy after a postgraduate course in narrative medicine: an observational study. Int J Clin Pharm. 2025;47(1):224–31.
19. Yang Y, Wei L, Zhao Q, Guo X. Available medication and business benefits: an empathy strategy into risky but meaningful 24h pharmacy. Kybernetes. 2025;
20. Bazzari AH, Bazzari FH. The correlation between alexithymia and communication skills among undergraduate pharmacy students. Heliyon. 2025;11(1).
21. Phetmanee T, Sangkapat S, Duangrithi D. Improving attitude and self-confidence of pharmacy students through the purposive non-technical skills training. Pharm Educ. 2025;25(1):31–41.
22. Carter SR, Moles R, White L, Chen TF. The impact of patients' perceptions of the listening skills of the pharmacist on their willingness to re-use Home Medicines Reviews: A structural equation model. Res Soc Adm Pharm. 2015 Mar;11(2):163–75.
23. Yande SD, Masurkar PP, Gopinathan S, Sansgiry S. A naturalistic observation study of medication counseling practices at retail chain pharmacies. Pharm Pract. 2020 Mar 31;18(1):1696.
24. Marcos JF, Cerdio D, Del Campo E, Gutiérrez RE, Castro LA, Cedillo AC. Relación médico-paciente e inteligencia emocional, un reto en la educación médica. Med Ética. 2021 Jul 1;32(3):635–64.
25. Butler L, Park SK, Vyas D, Cole JD, Haney JS, Marrs JC, et al. Evidence and strategies for including emotional intelligence in pharmacy education. Am J Pharm Educ. 2022;86(10):ajpe8674.
26. Almogbel YS, Alsalloum MA, Almadi RS, Almazyad AA, Garwan YM, Alregaibah RA. Relationship between Pharmacists' Emotional Intelligence and Job Performance: A Cross-Sectional Study in Saudi Arabia. Pharmacy. 2024 Sep 25;12(5):145.
27. Ulutas Deniz E, Ceylan C, Eren R, Memiş OB. Advancing empathy and emotional intelligence among pharmacy students: A comparative mixed-methods study with peer role-play simulation intervention. Curr Pharm Teach Learn. 2024 Aug;16(8):102112.
28. Senćanski D, Tadić I, Marinković V. Emotional intelligence and pharmaceutical care: A systematic review. J Am Pharm Assoc. 2022 Jul;62(4):1133-1141.e2.
29. Senćanski D, Marinković V, Tadić I. A cross-sectional study comparing emotional intelligence and perceived stress amongst community pharmacists delivering and not delivering a new service. Int J Clin Pharm. 2023 Oct;45(5):1136–43.
30. Dusan T. Impact of emotional intelligence of pharmacist and pharmacy techicians on potential for achieving compliance. Racion Ter. 2013;5(2):43–59.
31. Purnama S, Mulyani R, Ismail H, Muthaharah M. The description of emotional intelligence pharmacists in pharmacies. J Pharm Sci Appl. 2025 Jan 7;6(2):74.