UDC 614.253.5:616-083
DOI https://doi.org/10.11603/m.2414-5998.2026.1.16046

Solomiia Hnatyshyn
ORCID https://orcid.org/0000-0003-0021-0879

Ivan Horbachevsky Ternopil National Medical University of the Ministry of Health of Ukraine

SPECIFIC FEATURES OF PARAMEDIC–PATIENT COMMUNICATION

Соломія Гнатишин

Тернопільський національний медичний університет імені І. Я. Горбачевського МОЗ України

ОСОБЛИВОСТІ СПІЛКУВАННЯ ПАРАМЕДИКА З ПАЦІЄНТОМ

Abstract. The article examines the specific features of professional communication between paramedics and patients in the context of emergency medical care. Ethical and communicative aspects of interaction under conditions of heightened emotional stress and risk to the patient's life and health are analyzed. The study identifies key factors of effective communication, including the establishment of trust, clarity and accessibility of explanations, empathy, the ability to regulate one's own emotional state, and skills in managing patient and family aggression and panic. It is demonstrated that communication for a paramedic is as critically important a tool as a defibrillator or an intubation kit. The success of life-saving interventions often depends not only on how quickly medication is administered, but also on how accurately information is conveyed to colleagues and how effectively the patient is reassured. It is emphasized that the majority of medical errors result from communication breakdowns between different levels of care (from paramedic to resuscitation physician). When a patient trusts the provider, they are more cooperative, provide accurate medical history information, and consent to necessary procedures. In high-stress situations (e.g., Code Blue, mass casualty incidents), clear commands help prevent chaos. The specific nature of paramedic practice is characterized by time constraints, high stress levels, clinical uncertainty, and the need for rapid decision-making. Under such conditions, the ability to establish prompt psychological rapport, provide clear and accessible information about the patient's condition and planned interventions, and demonstrate empathy and self-control becomes particularly significant. Special attention is given to the role of nonverbal communication, the principles of medical ethics, the maintenance of confidentiality, and structured approaches to informing patients about their condition and planned procedures. Professional communicative competence of the paramedic is thus presented as an essential component of healthcare quality and a factor directly influencing the effectiveness of the treatment process.

Key words: paramedic; paramedic–patient communication; communication protocols; communication in crisis situations.

Анотація. У статті розглянуто особливості професійного спілкування парамедика з пацієнтом у процесі надання екстреної медичної допомоги. Проаналізовано етичні та комунікативні аспекти взаємодії в умовах підвищеного емоційного напруження та ризику для життя і здоров'я пацієнта. Встановлено чинники ефективної комунікації: встановлення довіри, чіткість і доступність пояснень, емпатійність, здатність контролювати власний емоційний стан, уміння працювати з агресією і панікою пацієнтів та їх родичів. Доведено, що комунікація для парамедика – це такий же критично важливий інструмент, як дефібрилятор чи набір для інтубації. Успіх порятунку життя часто залежить не лише від того, наскільки швидко ви ввели ліки, а й від того, наскільки чітко ви передали інформацію колегам або заспокоїли пацієнта. Наголошено, що більшість медичних помилок стається через труднощі комунікації між ланками (від парамедика до лікаря реанімації). Якщо пацієнт довіряє вам, він краще йде на контакт, надає правдиву інформацію про анамнез і дозволяє проводити маніпуляції. У стресових ситуаціях (код синій, масові травми) чіткі команди запобігають хаосу. Встановлено, що специфіка діяльності парамедика характеризується дефіцитом часу, високим рівнем стресу, невизначеністю клінічної ситуації та необхідністю швидкого прийняття рішень. За таких умов особливого значення набувають навички швидкого встановлення психологічного контакту, чітке та доступне інформування пацієнта про його стан і заплановані втручання, здатність до емпатії та самоконтролю. Особливу увагу приділено ролі невербальних засобів спілкування, принципам медичної етики, дотриманню конфіденційності та алгоритмам інформування пацієнта про його стан і заплановані маніпуляції, адже професійна комунікативна компетентність парамедика є важливою складовою якості медичної допомоги та безпосередньо впливає на ефективність лікувального процесу.

Ключові слова: парамедик; комунікація парамедика; протоколи спілкування; комунікація у кризових станах.

Introduction. The study of medical communication within the context of pre-hospital care represents a relatively recent but rapidly evolving field. Paramedic communication is distinctive because it takes place in unpredictable and dynamic environments, such as streets, accident scenes, or crowded and noisy locations, in contrast to the controlled and calm setting of a physician's office.

Professor Douglas Paxton was among the first researchers to investigate Crisis Resource Management (CRM) in healthcare. His work adapted aviation crew interaction standards for emergency medical teams. He observed that hierarchical structures within teams can compromise patient safety, whereas "horizontal" communication can be life-saving (Zlotniuk, 2021). A central concept in his research was the

development of situational awareness – the ability of a team to exchange concise messages to maintain a shared understanding of the unfolding situation.

The aim of this article is to analyze the role of medical communication in pre-hospital care, specifically the impact of paramedic–patient interactions in uncontrolled environments, with an emphasis on non-verbal communication and empathy during critical situations.

Theoretical framework. Crisis Resource Management (CRM) is an approach originally derived from aviation that emphasizes the "human factor" – non-technical skills – to optimize team performance in critical situations, particularly in medical settings. It focuses on situational awareness, effective communication, leadership, and workload distribution, with the overarching goal of reducing errors and enhancing public safety (Crisis Resource Management, 2020).

American researcher Dr. Kevin Mackey has extensively studied the patient handover process from paramedics to emergency department physicians. His work demonstrated that the use of structured protocols and frameworks, such as MIST or SBAR, can reduce the loss of critical information by 40–70% (Mackey& Qiu, 2019).

A research group led by Sarah Jensen examined non-verbal communication and empathy in critical care scenarios. Their studies investigated how therapeutic touch and eye contact from paramedics influence the stabilization of patients' physiological parameters, including reductions in heart rate and blood pressure due to decreased panic (Furaijat et al., 2019). These findings confirmed that communication extends beyond verbal exchange and functions as an essential tool for clinical management.

Additional models have been explored in this context. The Closed-Loop Model has been analyzed within advanced life support (ALS) procedures, demonstrating that failure to repeat verbal commands significantly increases the risk of administering incorrect medications. Interprofessional Communication (IPC) studies have examined paramedic interactions with other emergency services, including police and fire rescue units, highlighting the importance of structured, cross-agency communication (Jensen et al., 2015).

Key resources for further study include the *Journal of Emergency Medical Services (JEMS)*, which publishes case studies on communication psychology in accident scenarios; *Prehospital Emergency Care (PEC)*, the official journal of NAEMSP (USA), featuring rigorous statistical analyses on the effectiveness of SBAR and related protocols; and *Patient Safety in Emergency Medicine* (Grow et al., 2008), a foundational work exploring how cognitive errors and communication breakdowns contribute to medical incidents.

Communication functions as a "muscle"; mastery of theoretical principles, such as addressing colleagues by name during procedures, enables paramedics to perform effectively under stress (Noack et al., 2020), even when cognitive capacity is impaired.

Medical communication in prehospital care can be classified into several key domains:

1. *Verbal and Nonverbal Communication.* Vocal tone should remain calm, confident, and professional, even in high-stress situations. Maintaining eye-level contact with patients, such as kneeling beside them, conveys empathy through nonverbal communication. Active listening is essential, allowing the patient to complete statements before posing the next question.

2. *Patient Handover.* Handover involves transferring responsibility from the emergency medical services (EMS) team to hospital personnel. Standardized protocols are frequently used to ensure that critical details are not omitted. Common frameworks include:

SBAR: Situation, Background, Assessment, Recommendation.

MIST: Mechanism of injury, Injuries sustained, Signs (vital parameters), Treatment provided.

3. *Radio Communication and Documentation.* Communication should be precise, using standardized terminology instead of colloquialisms. Messages must be concise, clear, and structured. Written documentation, such as the patient care report, constitutes a legal record; it is imperative to remember that "if it is not documented, it was not performed."

4. *Therapeutic Communication in Crisis.* This involves strategies for interacting with patients experiencing acute stress, aggression, or mental health disorders. Core techniques include validating the patient's emotions (e.g., "I see that you are scared; we are here to help") and providing simple, unambiguous instructions without complex medical jargon.

Communication in prehospital settings may be impeded by environmental noise and disruption, language or cognitive barriers, and paramedic emotional fatigue, which often manifests as cynicism or abruptness (Müller et al., 2020).

First-year students of the educational-professional program *Paramedic* at I. Horbachevsky Ternopil National Medical University study communication protocols and develop practical skills through the elective course *Fundamentals of Paramedic Communication*. Students apply *closed-loop communication*, requiring colleagues to repeat, confirm, and report instructions (e.g., "Administer 1 mg of adrenaline").

Communication in emergency medical care is not merely a courtesy but a critical tool for patient stabilization (Turner et al., 2021). The *CLASS protocol* is designed to enable paramedics to establish trust quickly, reduce panic, and collect accurate informa-

tion under stress. The protocol consists of five key elements:

1. *C – Context (Environment).* Before initiating dialogue, paramedics assess the surroundings to ensure a safe and effective interaction. Physically, they may position themselves at the patient's eye level (e.g., kneeling) to appear non-threatening. Distractions are minimized (e.g., silencing sirens when safe), and privacy is ensured.

Example: "Hello, my name is [Name], I am a paramedic here to help you. I will sit beside you so we can speak calmly. May I take your hand/assess your shoulder?"

2. *L – Listening (Active Listening).* Patients under stress often speak chaotically. Paramedics must attend not only to words but also to emotional subtext. Interruptions are avoided; verbal cues such as "I understand" or "Go on" are used to demonstrate attention, complemented by eye contact and open body posture.

Example: "Please tell me exactly what happened. I am listening carefully. Yes, I understand. What happened next?"

3. *A – Acknowledge (Empathy and Validation).* Paramedics validate the patient's feelings, recognizing that even minor injuries may be experienced as highly distressing. Emotional states are named and normalized.

Example: "I see that you are very frightened; this is a normal reaction. I am sorry for the pain you are experiencing. You are safe, and we are focused on helping you."

4. *S – Strategy (Plan of Action).* To reduce panic caused by uncertainty, paramedics clearly explain the next steps and involve the patient in decisions where feasible.

Example: "We will first insert a catheter to administer analgesics, then immobilize your leg. You may feel a small sting, but it will soon be easier. We will transport you to Hospital No. 6, where specialists are ready to assist. If your breathing worsens or pain increases, please inform me immediately."

5. *S – Summary (Confirmation).* This final stage verifies mutual understanding and allows patients to ask questions.

Example: "To summarize, your pain began 20 minutes ago after physical activity and radiates to the left arm. Have I missed anything? Is there any other information, such as medication allergies, I should know? Do you have any questions right now?"

Effective communication requires that CLASS phrases be short, clear, and free of complex medical jargon, since stress impairs patient comprehension (Semigran et al., 2015). Optimal learning combines theoretical understanding of psychological mechanisms with practical skill development to build automatic, stress-resilient responses. Simulation scenarios allow students to practice CLASS in realistic settings:

– *Scenario 1: Frightened Child.* A 7-year-old boy with a suspected forearm fracture after a fall refuses physical contact and calls for his mother. Students apply CLASS using age-appropriate analogies and maintain eye-level positioning.

Key phrase: "I will place a 'magic splint' on your arm, which will hold it as strongly as a superhero's shield."

– *Scenario 2: Confused Elderly Patient.* A 75-year-old man with shortness of breath and chest pain is anxious and asks repeatedly, "What are you doing?" Students demonstrate active listening and a calm, structured approach.

Key phrase: "Mr. Mykola, I am connecting this device to check your heart. Can you hear me clearly?"

– *Scenario 3: Aggressive Relative/Witness.* A patient experiences a panic attack while a family member demands immediate intervention. Students use the Context step to isolate the patient from the stressor and Acknowledge to calm the relative.

Analytical Exercise: Error Analysis. Students review a short video or transcript illustrating communication errors:

– "What hurts? Hurry, I have no time." (*Error in C and L*)

– "It's just a scratch; why are you crying?" (*Error in A)*

– "We'll go to the hospital; they'll handle it there." (*Error in S*)

Students are tasked with rewriting the dialogue according to CLASS principles.

Studies indicate that implementing CLASS reduces patient adrenaline levels and stabilizes heart rate, improves accuracy of patient-provided information regarding allergies, medications, and symptoms, and decreases the risk of aggressive behaviour toward the paramedic.

The CLASS protocol does not replace clinical care protocols (such as ABCDE) but operates in parallel, addressing the patient's psychological state while the body is being treated.

The SBAR protocol (situation, background, assessment, recommendation) represents the gold standard for professional communication in medicine, designed to ensure rapid, precise, and unambiguous transfer of critical information. Its origins lie in aviation and naval operations, where communication errors can be fatal (Cheraghi-Sohi et al., 2020).

Each letter of SBAR corresponds to a specific block of information. *S (Situation):* identification of the patient and their current condition (e.g., "I am transferring a patient with suspected myocardial infarction, complaining of chest pain"). *B (Background):* concise medical history, including chronic illnesses, allergies, and precipitating events (e.g., "History of hypertension; fell 10 minutes ago and lost consciousness"). *A (Assessment):* clinical evaluation following

ABCDE algorithms, including vital signs (e.g., "BP 80/40 mmHg, pulse 120, shallow respiration; condition deteriorating"). *R (Recommendation):* expected actions from the colleague or planned interventions (e.g., "Immediate chest decompression required. Are you prepared to receive the patient?").

SBAR also helps overcome hierarchical barriers in healthcare. Medical teams often experience a "power distance," where paramedics may hesitate to correct physicians. The structured format of SBAR grants paramedics both the right and responsibility to make recommendations, transforming monologues into professional dialogues. Under high stress, presenting information in a predictable sequence improves processing, with the listener attending to the *situation*, then numerical data, and finally the *recommendation*. The *assessment* component ensures that all team members share a common understanding of the patient's status;e.g., when a paramedic reports signs of internal bleeding, the team immediately prepares for transfusion or surgical intervention.

Specific strategies within SBAR include the principle that the first sentence is the most critical. In the *Situation block*, paramedics have approximately five seconds to convey the severity of the condition, using objective data rather than vague statements (e.g., "Glasgow Coma Scale: 8" rather than "patient is very ill"). Upon completing SBAR, the paramedic should always confirm comprehension with the recipient by asking, "Do you have any questions?" or "Is everything clear?" In cases of extreme urgency, a "streamlined SBAR" may be employed, minimizing the *Background section* and focusing primarily on *Situation and Recommendation sections*.

Comparison of Chaotic Handover and SBAR in Prehospital Critical Care

In prehospital settings, structured communication is essential for patient safety. Unstructured handovers often result in incomplete or confusing information. For example, a chaotic handover may sound as follows: "There is a man, he is unwell, we found him on the street, he seems intoxicated, his leg is bleeding, his blood pressure is low… and he might have an allergy, I think." In contrast, an SBAR-based handover provides concise, prioritized information: "Male, 40 years old, unconscious. Suspected overdose and leg trauma. Respiratory rate 8, pulse 110. Intubation required. Are you ready?"

The following scenario illustrates the practical application of structured communication during massive haemorrhage. Two paramedics operate as a team: a *Leader,* performing the ABCDE assessment, and an *Assistant,* executing interventions.

Scenario: Circulation (C) – Penetrating thigh wound

Context: Airway and breathing have been assessed and are stable. The team proceeds to circulation assessment and management.

Leader: "Proceeding to C (Circulation). Observing massive arterial bleeding from the left thigh. Blood is pulsatile and bright red. Andriy, apply a tourniquet high and tight. Report when secured."

Assistant: "Understood. Applying tourniquet high on the left thigh." (Closed-loop confirmation)

Leader: "Assessing central and peripheral pulses. Radial pulse is thready, ~130 bpm. Skin cold and pale. Signs of hypovolemic shock."

Assistant: "Tourniquet applied. Haemorrhage controlled. Time 2:20 p.m."

Leader: "Acknowledged. Haemorrhage stopped at 2:20 p.m. Andriy, establish two large-bore IV accesses (14G or 16G) and prepare warmed saline infusion."

Assistant: "Two 16G IV lines established. Infusion initiated."

Leader (to patient): "Mr. Ivan, we stopped the bleeding with a tourniquet and will start an IV to help you feel better. Please try to breathe deeply."

Assistant: "Catheter inserted in the right antecubital vein on first attempt. Blood sample collected. Infusion started."

Leader: "Scanning for other bleeding sites manually. Front is clear. Andriy, prepare for log-roll to examine the back; measure blood pressure first."

The effectiveness of this communication lies in direct address, with the leader naming the assistant to eliminate diffusion of responsibility; verbalization of findings, ensuring the team is immediately aware of the critical condition (pulse 130, shock); precise timing, with tourniquet application announced for documentation; and patient updates, where a calm verbal tone reduces panic and psychogenic deterioration.

The patient was handed over using the SBAR framework, a critical process in which brevity and structured reporting are essential for patient safety.

S (Situation): "Ivan, 35 years old, with massive arterial haemorrhage from the left thigh due to a penetrating injury. Condition critically unstable, high risk of hypovolemic shock."

B (Background): "Injury sustained approximately 20 minutes ago in a workplace accident. No known allergies or chronic illnesses. Last meal unknown."

A (Assessment): "Airway patent. Breathing 22 breaths/min, SpO 96%. Circulation: tourniquet applied at 2:20 p.m, bleeding controlled; radial pulse weak, 115 bpm; BP 90/60 mmHg; skin pale and moist. Disability: GCS 15, pupils normal. Exposure: no additional injuries identified."

R (Recommendation): "One 16G IV established, warmed saline infusion initiated (250 mL). Immediate surgical evaluation and hemostasis required. Team remains for assistance during transfer."

This structured handover facilitates rapid clinical decision-making: the report is completed in under 60 seconds, the receiving clinician receives

critical information immediately, and the paramedic focuses solely on details relevant to urgent patient management rather than the patient's full medical history.

Student Guidelines for Effective SBAR

Key information (e.g., tourniquet time, blood pressure) should be recorded on gloves or tape attached to clothing to ensure accuracy during handover. During SBAR delivery, the hospital team must maintain silence until the question phase.

SBAR protocol represents a communication "gold standard," converting subjective narratives into objective clinical handovers, a critical determinant of patient survival during hospitalization.

Conclusions. Therapeutic touch and visual contact by paramedics significantly contribute to stabilizing patients' physiological parameters, as nonverbal communication and empathy play a central role, particularly in critical situations. A calm, confident, and professional voice, eye-level positioning, and active listening – allowing patients to complete statements before responding – enhance patient cooperation and reduce panic. Cognitive errors and communication failures, however, remain key contributors to medical incidents and must be addressed systematically.

Funding. None.

Conflict of Interest. None.

Author Contributions. Solomiia Hnatyshyn – Conceptualization, Methodology, Investigation, Data Curation, Writing – Original Draft, Writing – Review & Editing, Supervision, Project Administration.

Author approved the final version of the manuscript.

References

1. Cheraghi-Sohi, S., Panagioti, M., Daker-White, G., Giles, S., Riste, L., Kirk, S., Ong, B.N., Poppleton, A., Campbell, S., Sanders, C. (2020). Patient safety in marginalised groups: a narrative scoping review. *Int J Equity Health*, 19(1), 26. PMID: 32050976; PMCID: PMC7014732. DOI: 10.1186/s12939-019-1103-2

2. Crisis Resource Management (2020). LITFL. Retrieved from: https://litfl.com/crisis-resource-management-crm/

3. Furaijat, G., Kleinert, E., Simmenroth, A., Müller, F. (2019). Implementing a digital communication assistance tool to collect the medical history of refugee patients: DICTUM Friedland – an action-oriented mixed methods study protocol. *BMC Health Serv Res*, 19, 103. DOI: https://doi.org/10.1186/s12913-019-3928-1

4. Grow, R.W., Sztajnkrycer, M.D., Moore, B.R. (2008). Language barriers as a reported cause of prehospital care delay in Minnesota. *Prehosp Emerg Care*, 12, 76–79. DOI: https://doi.org/10.1080/10903120701709878

5. Jensen, S., Smith, C.J., Britigan, D.H., Lyden, E., Anderson, N., Welniak, T.J., Wadman, M.C. (2015). Interunit handoffs from emergency department to inpatient care: A cross-sectional survey of physicians at a university medical center. *J Hosp Med*, 10(11), 711–717. DOI: 10.1002/jhm.2431

6. Mackey, K.E., Qiu, C. (2019). Can Mobile Integrated Health Care Paramedics Safely Conduct Medical Clearance of Behavioral Health Patients in a Pilot Project? A Report of the First 1000 Consecutive Encounters. DOI: https://doi.org/10.1080/10903127.2018.1482390

7. Müller, F., Hummers, E., Noack, E.M. (2020). Medical Characteristics of Foreign Language Patients in Paramedic Care. *Int J Environ Res Public Health*, 17(17), 6306. DOI: 10.3390/ijerph17176306

8. Noack, E.M., Kleinert, E., Müller, F. (2020). Overcoming language barriers in paramedic care: a study protocol of the interventional trial 'DICTUM rescue' evaluating an app designed to improve communication between paramedics and foreign-language patients. *BMC Health Serv Res*, 20, 223. DOI: https://doi.org/10.1186/s12913-020-05098-5

9. Semigran, H.L., Linder, J.A., Gidengil, C., Mehrotra, A. (2015). Evaluation of symptom checkers for self diagnosis and triage: audit study. *BMJ*, 351, h3480. DOI: https://doi.org/10.1136/bmj.h3480

10. Turner, J.S., Courtney, R.D., Sarmiento, E., Ellender, T.J. (2021). Frequency of safety net errors in the emergency department: Effect of patient handoffs. *Am J Emerg Med*, 42, 188–191. DOI: 10.1016/j.ajem.2020.02.023

11. Zlotniuk, A. (2021). Algorithm of actions in critical situations. Retrieved from: https://ingeniusua.org/en/articles/alhorytm-diy-u-krytychnykh-sytuatsiyakh

Електронна адреса для листування: gnatyshyn@tdmu.edu.ua

Дата першого надходження статті до видання: 24.12.2025
Дата прийняття статті до друку після рецензування: 07.02.2026
Дата публікації (оприлюднення) статті: 26.03.2026