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College of Nursing

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Stacy Huddleston

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the review committee have been made.

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Walden University
2026

Abstract

Communication Challenges Experienced by Telephone Triage Registered Nurses

Providing Assessment of Health Symptoms

by

Stacy Huddleston

MA, Walden University, 2021

BS, Presentation College, 2008

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Nursing

Walden University

February 2026

Abstract

Telephone triage nurses routinely assess symptoms and make clinical decisions without visual contact, which introduces complex communication challenges. Language differences, emotional distress, cultural misunderstandings, and the absence of visual cues may influence how symptoms are described, interpreted, and acted upon during telephone encounters. The purpose of this qualitative interpretive description study, guided by Peplau's theory of interpersonal relations, was to explore how RNs experience and manage communication barriers in telephone triage practice. Six RNs with recent experience in telephone triage participated in semistructured interviews, and the data were analyzed using interpretive description and thematic analysis. Findings indicated that participants relied on vocal tone, pacing, and clear explanations to establish rapport; used structured questioning and teach-back techniques to confirm understanding; adapted language to meet callers' needs; and regulated their own emotional responses to maintain calm during challenging calls. Participants also described strategies for navigating linguistic and cultural differences and compensating for the lack of visual assessment. These findings highlight the need for continued examination of how communication strategies are supported, taught, and applied across diverse telephone triage settings. The results may inform communication training, triage protocols, and workplace support for nurses, with potential implications for positive social change, including improved safety, equity, and person-centered care in telehealth environments.

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Dedication

GNU Gene Huddleston, whose influence and presence remain with me.

It is also dedicated to Alex and Kermit, for their patience, steadiness, and continued tolerance of a process that involved far too many drafts and not nearly enough certainty.

Finally, this work is dedicated to my household staff, who ensured that I remained marginally functional. To The Cat, whose unyielding belief in the importance of gravy and need for insulin established a reliable schedule; to Dan Benedict Arnold Cooper, who barked as though Timmy were trapped in a well and required immediate rescue, only to lead me, heroically, back to his food bowl; to Marble, who governed as princess with admirable restraint, requesting treats and scratches; and to Charlie Brown's Tree, who periodically insisted I go outside despite your ability to use a dog door and having used countless times every day, but who came to scratch me at moments when it was clearly required. Their interventions provided structure, interruption, and just enough reality to keep me sane.

Acknowledgments

I want to express my sincere appreciation to Dr. Janice Long for her guidance, expertise, and thoughtful feedback throughout the dissertation process. Her steady support and commitment to scholarly rigor strengthened this work and contributed meaningfully to my development as a researcher and scholar.

I also extend my gratitude to Dr. Elizabeth Diener for her encouragement, insight, and support during this journey. Her assistance and professionalism were invaluable, and her willingness to guide me through key points contributed to the successful completion of this dissertation.

Finally, I acknowledge the RN's who shared their time and experiences for this study. Their willingness to reflect on their practice made this research possible and contributed to advancing knowledge in telephone triage nursing and telehealth communication.

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Chapter 1: Introduction to the Study

Effective communication is essential in nursing because it supports trust, patient understanding, and safe care (Afriyie, 2020; Rysst Gustafsson & Eriksson, 2021; Vogel et al., 2018). Telephone triage is one setting where communication plays a central role. In this context, RNs assess callers' symptoms and guide them to appropriate care without face-to-face interaction (Brady & Northstone, 2017; Brasseur et al., 2022; Calvetti et al., 2022). Nurses depend on verbal communication, clinical reasoning, and interpersonal skills to obtain accurate information (Del Vecchio et al., 2022; Hanrahan et al., 2022). When nurses cannot rely on visual cues, these skills support callers' decision-making.

Researchers have identified several communication challenges in telephone triage. However, limited attention has been given to how nurses manage these difficulties in real time. Researchers describe language differences, cultural expectations, emotional distress, and gendered communication patterns as common barriers that influence the quality and safety of remote assessments (Holmström et al., 2020; Purc-Stephenson & Thrasher, 2012). Examining these barriers from nurses' perspectives helps address a gap in current knowledge. A deeper understanding of nurses' experiences can inform communication practices in telehealth environments. These practices can support effective, fair, and safe interactions.

I explored how RNs experienced and managed communication challenges during telephone triage. Gaining insight into these experiences can guide improvements in training programs and organizational support. These insights may also inform refinements to triage procedures. I also aimed to contribute to positive social change by

identifying communication practices that promote safe, equitable, and patient-centered telephone triage services.

Chapter 1 introduced the background of telephone triage and its communication demands. The chapter also presented the research problem and stated the study's purpose. Additionally, the chapter included the research questions (RQs) and described the theoretical framework. In addition, it outlined the study's nature and addressed ethical considerations. I concluded the chapter by highlighting the importance of examining nurses' communication experiences in telehealth settings.

Background

Researchers have shown that telephone triage is a cost-effective and efficient method for managing growing patient demand and supporting timely access to care (Brady & Northstone, 2017; Graversen et al., 2019). In this setting, RNs assess patients' symptoms solely through verbal descriptions (Gustafsson et al., 2020; Holmström et al., 2022). Nurses do not have access to physical examinations or visual cues. Nurses rely on clinical expertise, empathic listening, and clear communication to ensure safe and accurate assessments (Ehly & Fitzwater, 2021; Erkelens et al., 2021). These skills form the foundation of patient-centered and effective remote care.

Researchers have continued to examine telephone triage, focusing primarily on patient satisfaction, adherence to clinical guidelines, and the efficiency of triage processes (Fotland et al., 2024; Kerr et al., 2022). Although researchers have acknowledged communication barriers, such as language differences, cultural variation, emotional stress, and gendered communication patterns (Holmström et al., 2022;

Plocienniczak et al., 2022), few investigations explore these challenges from the perspective of practicing nurses. Qualitative methods are rarely used to examine nurses' experiences in real time. Limited attention to nurses' viewpoints leaves gaps in understanding how they manage complex communication demands during real-time triage interactions.

The gap underscores the need for qualitative research that centers nurses' voices and captures their lived experiences. My study examined how nurses adapt to complex communication scenarios in real time. The findings offer actionable insights to enhance telehealth communication training and inform the development of decision-support tools and organizational policies. Addressing these issues is essential for supporting patient-centered care, reducing miscommunication, and strengthening nurse resilience in remote clinical settings. My study addressed this need by examining how nurses made sense of complex communication during telephone triage.

Problem Statement

The research problem in this study was the limited understanding of how RNs experience and manage communication challenges during telephone triage. Researchers have given little attention to how nurses perceive and respond to these challenges in remote care settings. Although many scholars identify communication as a key factor influencing patient safety, outcomes, and satisfaction (Fotland et al., 2024; Gustafsson & Wahlberg, 2023), few researchers explore how nurses navigate these barriers in real time. Much of the existing work focuses on measurable outcomes such as protocol adherence, efficiency, and patient satisfaction, leaving gaps in knowledge about the lived

experiences and adaptive strategies nurses use to manage emotional distress, linguistic dilemmas, and culturally influenced expressions of illness (Graversen et al., 2019; Plocienniczak et al., 2022).

As telehealth use continues to expand, gaining deeper insight into nurses' communication experiences remains relevant and necessary (Anderson et al., 2024; Doyle et al., 2022). Researchers recognize the need for tools, training, and policies that support effective, relational communication in remote assessments (Ciccolini et al., 2022; Forchuk, 2021). Without a clearer understanding of nurses' experiences, health care systems may continue to overlook the nuanced communication needs of telephone triage, thereby increasing the risk of miscommunication, unmet patient needs, and dissatisfaction (Fotland et al., 2024; Gustafsson & Wahlberg, 2023). I addressed this gap by offering practice-oriented findings that informed strategies for strengthening communication in telehealth-based nursing encounters.

Purpose of the Study

The purpose of this qualitative interpretive description study was to examine how RNs experienced and navigated communication challenges during telephone triage. I used interpretive description to explore the meanings nurses assigned to their communication processes and to develop practical insights for applied clinical contexts (Thorne, 2016; Thompson Burdine et al., 2004). Through this approach, I examined how contextual factors, such as caller distress, linguistic differences, cultural expectations, and the absence of visual cues, shaped nurses' communication strategies during remote assessment. The purpose that guided my study was to deepen understanding of the

barriers nurses encounter in telephone triage and to identify adaptive approaches that support safe and effective communication in telehealth environments.

Research Questions

RQ1: What are nurses' experiences navigating communication barriers related to gender, language, cultural differences, emotional dynamics, and nurse–patient interactions during telephone triage encounters?

RQ2: How do nurses adapt communication strategies to navigate communication barriers, emotional stress, and nurse–patient interactions over the phone?

Theoretical Framework for the Study

Hildegard Peplau shifted nursing from task-focused routines to a practice centered on therapeutic communication and interpersonal connection (Forchuk, 2021; Hagerty et al., 2017). Peplau introduced this model in 1952 to emphasize the nurse's role in developing trust, mutual understanding, and patient-centered care throughout the therapeutic relationship (Forchuk, 2021; Peplau, 1991). She framed nursing as an interpersonal process that acknowledges patients' emotional, cultural, and psychological needs and positions nurses as caregivers, counselors, educators, and advocates who support healing through relational engagement (Barmak et al., 2019; Peplau, 1991).

Peplau (1991) identified three phases of the nurse–patient relationship: orientation, working, and termination, which nurses use to structure how they respond to patients' evolving needs. During orientation, the nurse establishes trust and helps the patient identify concerns. In the working phase, the nurse provides education, encouragement, and guidance as the patient addresses health challenges. In the

termination phase, the patient gains confidence, and the nurse gradually steps back. To meet patient needs across these phases, nurses draw on roles such as stranger, teacher, counselor, and resource person (Forchuk, 2021; Lalwani et al., 2023). Nurses use these roles to support clarity, empathy, and collaboration, which remain central elements of therapeutic communication.

Peplau highlighted the importance of communication in promoting understanding and emotional support, especially when patients feel uncertain or distressed (Forchuk, 2021; Vogelsang, 2022). Concepts such as trust-building, empathy, patient empowerment, and focused therapeutic dialogue continue to guide nursing practices that address patients' emotional and cultural needs (Barmak et al., 2019; Forchuk, 2021). Peplau underscored that nurses foster therapeutic relationships through deliberate communication rather than solely through tasks.

Nurses encounter challenges when adapting Peplau's theory to telephone triage because they cannot rely on visual cues that support rapport-building in face-to-face care (Gustafsson & Wahlberg, 2023; Holmström et al., 2022). Nurses often encounter callers who experience distress, speak limited English, or describe symptoms through culturally shaped expressions of illness (Ciccolini et al., 2022; Gerchow et al., 2021). To address these barriers, nurses use strategies such as verbal precision, active listening, and collaboration with interpreters to clarify concerns and support emotional needs (Wasaya et al., 2021). Nurses use these adaptations to help maintain the therapeutic intent of the interaction and uphold the principles of Peplau's model even in the absence of nonverbal communication (Finley et al., 2024; Forchuk, 2021).

Nurses continue to apply Peplau's model, adapting their roles to meet the demands of technology-mediated care (Forchuk, 2021; Hrabe, 2005). Telephone triage often involves triadic communication among nurses, caregivers, and patients, which expands the traditional nurse–patient dyad (Jojan & Carroll, 2025; Peplau, 1991). Even in these mediated settings, nurses anchor interactions in empathy, clarity, and trust. In this study, I used Peplau's theory to guide the development of interview questions and to inform the interpretation of how nurses enacted roles such as communicator, teacher, and counselor during telephone triage interactions. These roles supported nurses' relational effectiveness and helped me explain how nurses managed communication challenges in remote assessments (Peplau, 1991).

Nature of the Study

I conducted a qualitative study using interpretive description to examine how RNs experienced and managed communication challenges during telephone triage. I used interpretive description because it is designed for applied clinical research and for identifying practice-based patterns in experiential data (Thorne, 2016). Using this approach, I generated rich, contextual insights into interpersonal communication, decision-making, and relational dynamics that arise in remote nursing encounters.

The phenomenon of interest involved nurses' experiences navigating communication barriers during telephone triage. These barriers included managing emotionally distressed callers, speaking with individuals who had limited English proficiency (LEP), addressing culturally or gender-influenced descriptions of symptoms, and assessing concerns without access to facial expressions or body language. I used

Peplau's theory of interpersonal relations as the theoretical foundation for the study. I applied this lens to examine how nurses enacted roles such as counselor, teacher, and resource person during telephone-based interactions (Peplau, 1991).

Participants were RNs with at least 1 year of telephone triage experience and who had practiced within the prior 6 months. I selected this criterion to ensure that participants could describe current communication demands and practices in evolving telehealth environments (Creswell & Poth, 2023). Eligible nurses completed one individual telephone interview after providing informed consent. Those without recent triage experience or who were unable to participate in an interview were not included.

I recruited participants through purposive sampling by distributing digital flyers on social media platforms such as Facebook, LinkedIn, X (formerly Twitter), and Instagram (Patton, 2023; Ravitch & Carl, 2021). I targeted licensed RNs working in telephone triage roles through these flyers. Prospective participants received information about the study, including that interviews would last 40–60 min and participation was voluntary. I conducted each interview by telephone, obtained verbal consent, and recorded the sessions for later transcription. Pseudonyms replaced identifiable information, and I followed Walden University's ethical guidelines for research involving human participants (Walden University, n.d.).

I analyzed the data using Braun and Clarke's (2019) six-phase approach to thematic analysis, a method widely used in qualitative nursing research (Doyle et al., 2022). After transcribing the interviews, I reviewed the transcripts repeatedly to become familiar with the data and identified initial meaning units and codes. I organized these

codes into categories that highlighted how nurses interpreted caller concerns, responded to emotional cues, addressed language and cultural barriers, and sustained therapeutic communication without visual cues. To support the organization and refinement of codes and categories, I used ATLAS.ti software to track patterns across the data set (see Atlas.ti, n.d.).

Definitions

The following definitions clarify key constructs relevant to this study on communication challenges in telephone triage nursing:

Caller engagement: The degree to which a caller actively participates in a triage interaction by describing symptoms, asking questions, and responding to nurse prompts. Higher engagement supports accurate assessment and patient-centered decision-making (Murdoch et al., 2014; Roivainen et al., 2020).

Communication barriers: Factors that hinder understanding or message exchange during telephone triage, including language differences, emotional distress, structured protocols, and the absence of visual cues (Holmström et al., 2022; Rysst Gustafsson & Eriksson, 2021).

Communication fatigue: As applied to nursing, a form of professional exhaustion that develops through prolonged verbal communication in high-stakes, emotionally charged, or nonvisual interactions. This condition can reduce empathy, attentiveness, and clinical judgment during triage calls (Holmström et al., 2022; Skogevall et al., 2020).

Cultural competence: The ability of health care providers to recognize, respect, and respond effectively to diverse cultural beliefs, values, and language needs in clinical encounters, including remote assessments (Ciccolini et al., 2022; Hawkins et al., 2022).

Decision-support protocols: Structured algorithms used to guide symptom assessment and clinical decision-making in telephone triage. Their use promotes consistency and safety but may limit conversational flexibility (Spek et al., 2023; Wouters et al., 2020b).

Digital triage tools: Algorithm-based platforms that help nurses assess symptoms and prioritize care. Their use supports efficiency but can reduce opportunities for deeper interpersonal communication (Michel et al., 2024; Spek et al., 2023).

Emotional distress: A psychological state, such as fear, anxiety, or confusion, which interferes with a caller's ability to articulate symptoms clearly or respond coherently during a triage call (Graversen et al., 2023; Rysst Gustafsson & Eriksson, 2021).

Gender dynamics: Social and cultural norms, expectations, and biases associated with gender that influence how callers express symptoms and how nurses interpret and respond to those expressions (Höglund & Holmström, 2008; Yliluoma & Palonen, 2020).

Health literacy: A caller's ability to obtain, understand, and use health information to make informed decisions during triage. Limited health literacy increases communication challenges and the risk of misunderstanding (Johnson et al., 2015; Rysst Gustafsson & Eriksson, 2021).

Interpreter-mediated triage: A triadic communication process in which a trained interpreter facilitates interaction between the nurse and caller when language barriers exist. This arrangement can disrupt rapport, slow communication, and reduce clarity (Plocienniczak et al., 2022; Watts et al., 2019).

Nurse–patient interaction: The verbal exchange through which nurses and callers build trust, share clinical information, and support health decisions. The lack of visual cues in telephone triage complicates this interaction (Eriksson et al., 2020; Gustafsson & Wahlberg, 2023).

Shared decision-making: A collaborative process in which the nurse and caller exchange information and preferences to reach an informed care plan. This practice supports patient-centered outcomes in telephone triage (Gustafsson & Wahlberg, 2023; Mattisson et al., 2023).

Telephone triage: A remote nursing role in which RNs assess symptoms, prioritize care needs, and provide guidance by phone, often using structured protocols to ensure safety and efficiency (Fotland et al., 2024; Greenberg, 2009).

Telenursing presence: The ability of nurses to convey attentiveness, empathy, and professionalism through voice alone, fostering connection without face-to-face interaction (Eriksson et al., 2020; Hafermalz & Riemer, 2020).

Therapeutic communication: A purposeful and empathetic exchange used by nurses to support, educate, and build trust with callers. This communication approach is rooted in Peplau's theory of interpersonal relations and is central to effective triage (Forchuk, 2021; Peplau, 1991).

Triadic communication: A communication structure in which nurses interact with a third-party caller, such as a caregiver, parent, or family member, rather than directly with the patient. This arrangement requires nurses to assess symptoms indirectly and navigate complex relational dynamics (Gustafsson & Wahlberg, 2023; Jojan & Carroll, 2025).

Assumptions

I had three assumptions when conducting this research. First, I assumed that nurses participating in the interviews provided honest and authentic responses, as accurate and meaningful interpretations depended on genuine accounts of their experiences. Second, I assumed that participants could reflect on and articulate their experiences in telephone triage. The depth and clarity of their reflections were essential for understanding how they navigated communication challenges. Third, I assumed that communication barriers meaningfully shaped nurses' effectiveness during telephone triage. This assumption supported the rationale for examining communication practices that may improve patient care outcomes. These assumptions were consistent with interpretive description, which holds that participants construct their own subjective truths and that these accounts can generate clinically valuable insights.

Scope and Delimitations

The population for this study consisted of RNs with at least 1 year of telephone triage experience who had practiced in this role within the prior 6 months. I selected this group to ensure participants could describe recent, relevant communication challenges encountered during remote triage. Researchers have noted that telephone triage requires

strong verbal communication and clinical reasoning skills to support accurate assessments and safe patient outcomes (Fotland et al., 2024; Graversen et al., 2020b; Gustafsson & Wahlberg, 2023; Rausch, 2023). Findings from prior research indicate that many nurses receive limited preparation for managing communication barriers, such as language differences, cultural variation, and emotional distress, in telephonic encounters (Gustafsson & Wahlberg, 2023; Holmström et al., 2022). Because training practices vary across organizations, focusing on nurses with consistent triage responsibilities helped ensure that participants had comparable exposure to these challenges (Eriksson et al., 2020).

Delimitations reflected the choices I made to narrow the study's focus. I limited participation to RNs working in structured telephone triage environments, such as nurse-led advice lines, to maintain consistency in role expectations and communication demands. Nurses who worked in other remote roles, such as follow-up calls, case management, or informal telephone support, were omitted because their communication duties differ from formal triage assessment. The study also focused only on nurses' perspectives and did not include callers, family members, or other clinicians as participants. These boundaries strengthened the coherence of the sample and supported an in-depth exploration of nurses' communication experiences, although they may limit the transferability of the findings to other telehealth or in-person care settings.

Limitations

I identified several limitations related to research design and methodology. I used purposive sampling to select nurses working in telephone triage. While this approach was

appropriate for qualitative inquiry, it limited generalizability (Campbell et al., 2020). The geographic focus on nurses working primarily in the Midwest and the inclusion of only those with recent triage experience restricts the applicability of findings to other regions, populations, or care settings. To enhance transferability, I provided detailed descriptions of the participants, setting, and context, allowing readers to assess the relevance of the findings to their practice environments (Creswell & Poth, 2023; Mason, 2010).

Reliance on participants' self-reports during interviews may affect the reliability of the findings, as these reports can vary in accuracy or completeness. I addressed limitations by using a consistent semistructured interview guide and documenting research decisions and reflections in a reflexive journal, thereby maintaining an audit trail throughout the data collection and analysis process to ensure transparency and reproducibility of the study's procedures (Patton, 2023; Shenton, 2004).

As a nurse with experience in telephone triage, I recognize the potential for researcher bias to influence my interpretation of participants' responses. I addressed this risk through ongoing reflexivity, journaling, and bracketing of my experiences. I used reflexive journaling to document assumptions, decisions, and analytic reflections, which reduced the likelihood of subjective influence on the findings (Ortlipp, 2015).

Although limiting participation to nurses with recent triage experience helps control extraneous variables, it also narrows the diversity of perspectives represented. I balance this limitation by ensuring depth of inquiry and rigorous analysis, aiming to reflect the richness and complexity of participants' lived experiences. Despite these

constraints, the study generates practice-based insights that may be transferable to similar telehealth and remote nursing contexts.

Significance

I consider the study significant because it provides insight into how RNs navigate communication challenges during telephone triage in high-pressure, nonvisual clinical settings. Although communication is essential to safe remote assessment, prior research has emphasized protocol adherence, efficiency, or patient satisfaction rather than the lived experiences of nurses managing complex interactions (Fotland et al., 2024; Graversen et al., 2020b). By documenting how nurses responded to language barriers, emotional distress, cultural differences, and the absence of visual cues, I expanded the disciplinary understanding of communication demands in telehealth environments and addressed a notable gap in current research.

The findings also contribute to nursing practice by identifying specific communication strategies nurses use to promote caller understanding, build trust, and maintain clinical accuracy during triage calls. These insights may support the development of targeted professional development programs that strengthen communication training and improve support systems for telephone triage nurses. The results may also inform organizational policies to enhance the quality and safety of remote assessments, including culturally responsive communication practices and resources for callers who experience distress or have LEP.

I further contributed to nursing scholarship by extending relational communication theories, such as Peplau’s theory of interpersonal relations, to telephone-

based care. The findings demonstrated how therapeutic communication unfolds without visual cues and highlighted the emotional and cognitive demands placed on nurses in remote settings. My conclusions about how nurses navigate communication challenges in nonvisual, technology-mediated encounters contribute to the broader body of knowledge on telehealth communication and suggest directions for future qualitative inquiry.

The study also has implications for positive social change. Callers from underserved populations often encounter communication barriers that increase the risk of misunderstanding or unmet care needs (Gerchow et al., 2021; Njeru et al., 2017). By identifying ways nurses supported these callers, I offered practical insights that may improve equity in access to telehealth services. Strengthening communication processes in telephone triage can enhance patient understanding, promote respectful, timely care, and reduce disparities arising from linguistic, cultural, or emotional challenges. Supporting nurses in these interactions may also reduce communication fatigue and enhance job satisfaction, contributing to a more sustainable workforce. Together, these improvements promote patient-centered communication and reinforce the importance of human connection in remote nursing practice.

Summary

In this chapter, I introduced my examination of how RNs navigated communication challenges during telephone triage. I presented the research background and identified a gap in the literature related to the emotional, cultural, and linguistic barriers that influence nurse–caller interactions in remote care settings. I then stated the problem, the study's purpose, and the RQs that underpinned the inquiry. I also outlined

the theoretical framework, grounded in Peplau's theory of interpersonal relations, and summarized the study's nature, including the use of interpretive description as the qualitative methodology. To clarify the study's boundaries, I defined key terms, outlined assumptions, specified the scope, identified delimitations, and acknowledged potential limitations. In closing, I explained the study's significance and demonstrated how the findings contributed to nursing knowledge, informed clinical practice, and supported positive social change in telehealth communication. In Chapter 2, I provided a review of the theoretical foundation and current literature on communication challenges in telephone triage, further establishing the need for a qualitative exploration of nurses' experiences.

Chapter 2: Literature Review

Barriers can affect the delivery of safe, effective, and caller-centered care (Afriyie, 2020; Gerchow et al., 2021; Gustafsson & Wahlberg, 2023). Although telephone triage plays an essential role in modern health care, most existing studies emphasize caller satisfaction, protocol adherence, or efficiency outcomes. This emphasis has contributed to a limited understanding of nurses' lived experiences (Boström et al., 2020; Holmström et al., 2022). It also has limited insight into the communication strategies nurses use to manage complex interactions in real time. Nurses' perspectives are critical because they illuminate the interpersonal, cultural, and emotional demands of triage work that quantitative metrics and caller-centered evaluations often fail to capture. Examining these perspectives can inform improvements in nurse preparation, organizational support structures, and telehealth communication practices.

The purpose of this qualitative interpretive description study was to explore how RNs experienced and managed communication barriers during telephone triage interactions. The study examined how nurses employed adaptive strategies to address communication challenges related to gender, language, cultural differences, emotional distress, and complex interaction dynamics. Understanding these strategies offers practical insight into nurses' real-world problem-solving approaches. It also highlights opportunities to strengthen communication training, refine organizational policies, and improve remote triage practices.

In this chapter, I describe the literature search strategy and then present a detailed discussion of the theoretical framework that guided the study. Next, I reviewed research

related to four major areas: (a) communication barriers, (b) cultural, gender, and language dynamics, (c) emotional stress in telephone triage, and (d) nurse–caller interaction challenges in remote settings. I conclude the chapter with an analysis of the gaps in existing literature that support the need for this study.

Literature Search Strategy

I conducted a comprehensive literature search to gather relevant research on the communication challenges RNs encounter during telephone triage. I searched individual databases, including APA PsycINFO (10 results), CINAHL (46 results), Embase (97 results), MEDLINE (24 results), ProQuest (155 results), and PubMed (144 results). I also conducted a combined database search via the Walden Library portal, yielding 347 results. To supplement these searches, additional sources were identified through Google Scholar. Among the databases searched, CINAHL and PubMed yielded the most relevant peer-reviewed literature because of their broad coverage of nursing and health care research.

I used search terms such as communication, telenursing, telephone triage, nurse, nurse–caller interaction, and language barriers. These terms were used individually and in various combinations to locate studies relevant to the review's purpose. To refine the results, filters were applied for peer-reviewed, full-text articles written in English, involving human subjects, and published between 2020 and 2025. Using an iterative selection process, articles were systematically evaluated for relevance to communication barriers, language challenges, and nurse–caller interactions in telephone triage settings. Studies that examined nurses' experiences or strategies for managing these challenges

were included, whereas studies that focused exclusively on caller satisfaction, technical protocols, or populations that did not include RNs were excluded.

Through database searches, reference tracking, and critical appraisal, I reviewed 122 abstracts. I selected 52 articles for complete examination. These sources included both contemporary and foundational literature, allowing for a synthesis that identified gaps in the existing evidence and informed practical strategies to support effective communication in telephone triage nursing practice.

Theoretical Foundation

The theoretical framework underpinning this study was Hildegard Peplau's theory of interpersonal relations. First introduced in 1952, Peplau's theory shifted nursing practice from a task-oriented focus to an approach grounded in relational engagement and therapeutic communication (Hagerty et al., 2017; Peplau, 1991). Peplau's theory explains that people develop communication and behavior through their social context and firsthand experiences, which influence how they interact in clinical settings (Clark, 2023; Forchuk, 2021). Peplau conceptualized nursing as an interpersonal process that unfolds through purposeful interactions between nurses and callers, a perspective that aligns directly with the focus of this study. Because the framework emphasizes relational roles and communication strategies, it provides a solid foundation for examining how nurses adapt these roles in telephone triage settings.

The RQs were aligned with Peplau's emphasis on therapeutic communication, role adaptation, and trust-building. These concepts provided a structured lens for exploring how nurses adjust their communication strategies to address emotional,

linguistic, and cultural barriers in remote settings. Peplau's framework also supports an examination of the interpersonal demands of telephone triage, in which nurses must build rapport, assess needs, and guide callers despite the absence of visual cues.

Previous research demonstrates that Peplau's theory supports therapeutic communication in virtual and technology-mediated care environments. Researchers have shown that nurses use Peplau's phases of the nurse–patient relationship to build rapport, provide emotional support, and deliver education during remote encounters (Finley et al., 2024; Fronczek, 2019). These findings illustrate how relational principles help nurses manage communication barriers that frequently arise in telehealth encounters.

I extended Peplau's theory by examining triadic communication contexts, including interactions among caregivers, family members, and other participants. These scenarios move beyond the dyadic nurse–caller relationship emphasized in Peplau's original model. By analyzing how nurses navigated these more complex communication structures, I demonstrated the adaptability and continued relevance of Peplau's framework within contemporary, technology-mediated health care environments.

Major Theoretical Propositions and Hypotheses

Peplau (1991) proposed that nurses play a central role in fostering therapeutic relationships that address patients' physical, emotional, and psychological needs. Her theory describes three phases of the nurse–patient relationship: orientation, working, and termination, through which nurses adopt relational roles such as stranger, resource person, teacher, leader, counselor, and surrogate. Progression through these phases requires attentive communication, flexibility in roles, and responsiveness to patients'

evolving needs (Peplau, 1991). These propositions align with the aims of this study, which examined how nurses adapted Peplau's relational roles during telephone triage encounters.

During the orientation phase, nurses assume the role of counselor, providing reassurance and validating callers' emotions. This approach helps create a supportive environment. As strangers, nurses approach callers without preconceived assumptions, establish respectful interactions, and encourage callers to express concerns openly (Peplau, 1991; Senn, 2013). In the counselor role, nurses provide reassurance, emotional support, and guidance to help callers articulate their needs and begin developing trust. These relational behaviors establish a foundation for therapeutic communication (Peplau, 1991; Wasaya et al., 2021). They also support accurate assessment during triage calls, particularly when nurses rely solely on verbal information.

Within the working phase, nurses collaborate with callers to explore and address health concerns. In this phase, nurses frequently assume the roles of resource person, teacher, and leader (Peplau, 1991; Senn, 2013). As resource persons, nurses provide information that helps callers interpret symptoms and understand care options (Senn, 2013; Wasaya et al., 2021). In the teacher role, nurses explain health conditions and self-care strategies using clear, accessible language to support understanding. As leaders, nurses guide decision-making, encourage participation, and promote confidence in managing health concerns (Hagerty et al., 2017). These roles are particularly significant in telephone triage, where effective communication depends entirely on spoken interaction.

The termination phase concludes the nurse–patient interaction and supports patients' readiness to manage their health independently (Hagerty et al., 2017; Peplau, 1991). During this phase, nurses may return to the role of resource person by clarifying instructions or providing follow-up guidance. Nurses emphasize a purposeful, supportive conclusion to the interaction. This approach reinforces autonomy, self-efficacy, and preparedness for the next steps in care. The propositions highlight the relational structure of nursing practice and provide a framework for examining how nurses adapt communication strategies in remote, technology-mediated encounters such as telephone triage.

Literature-Based Analysis of Theory Application

Researchers have frequently applied Peplau's theory of interpersonal relations to examine nurse–patient interactions, particularly in contexts where trust, rapport, and communication influence patient outcomes. Evidence from recent studies indicates that structured use of Peplau's relational phases can enhance patient satisfaction (Fathidokht et al., 2023; Fronczek, 2019; Hagerty et al., 2017; Su et al., 2024). This approach can also strengthen adherence to treatment recommendations and reduce anxiety during critical transitions in care. These findings demonstrated the relational value of Peplau's propositions and indicated the theory's continued relevance for guiding communication-centered nursing practice.

In this study, I extended Peplau's theory to a non–face-to-face context by examining how RNs navigated communication challenges during telephone triage. Although Peplau originally conceptualized the framework for in-person interactions,

subsequent scholars have adapted its principles to virtual and technology-mediated care environments (Forchuk, 2021; Hrabe, 2005). I applied Peplau's core concepts to examine how nurses enacted relational roles, including counselor, teacher, and resource person, in the absence of visual cues. These concepts guided my analysis of how nurses interpreted callers' concerns, addressed emotional dynamics, and sustained therapeutic engagement during nonvisual interactions.

In telephone triage, nurses frequently assume the counselor role during emotionally charged calls by using vocal tone, empathic listening, and verbal validation to calm distressed callers and establish rapport (Peplau, 1991; Senn, 2013). Nurses also enact the roles of teacher and resource person by offering clear explanations of symptoms, recommendations, and next steps. These actions support informed decision-making. Although these relational functions originate from Peplau's theory, nurses must adapt them to the specific demands of remote communication. Accordingly, I used the framework presented in Table 1 to support a nuanced interpretation of nurses' responses to communication challenges during telephone triage encounters.

Table 1.

Peplau's Framework of Interpersonal Relations as Applied to Telephone Triage

Nurses' role in interpersonal relations	Phase of interpersonal relations	Application in telephone triage
Teacher: Educate patients on symptoms and care steps.	Orientation: Establish trust, collect information.	Greet and identify the patient. Establish trust over the phone. Collect symptom-related information.
Stranger: Establish rapport and reduce anxiety.	Working: Guide, educate, problem-solve.	Explain health concerns and triage steps. Actively listen and ask clarifying questions. Adjust communication style based on patient needs.
Resource person: Provide accurate, timely information.	Termination: Confirm understanding, clarify next steps.	Summarize key points.
Counselor: Offer reassurance and emotional support.		Confirm the patient's understanding. Provide follow-up instructions.

Note. Adapted from *Interpersonal Relations in Nursing: A Conceptual Frame of Reference for Psychodynamic Nursing* (2nd ed.; p. 41, see Fig. 3), by H. Peplau, 1991, Springer Publishing Company. Copyright 1991 by Springer Publishing Company.

Peplau's interpersonal theory is also relevant to telemental health and other virtual care environments, where establishing trust can be challenging due to the absence of face-to-face contact. Finley et al. (2024), for example, examined how psychiatric–mental

health nurse practitioners adapted interpersonal skills to build therapeutic alliances in virtual settings. Although the authors did not explicitly cite Peplau, their findings were consistent with the theory's core principles, particularly the emphasis on creating a safe, trusting environment early in the encounter. This alignment demonstrates the enduring applicability of Peplau's relational framework in telehealth contexts.

Peplau's principles have also informed nursing education designed to prepare nurses for virtual care delivery. Gallagher-Lepack et al. (2009) integrated Peplau's interpersonal relational concepts into telehealth curricula, emphasizing roles such as teacher, resource person, and leader. Their findings indicated that structured instruction in these roles improved nursing students' ability to assess patient needs, deliver clear education, and support patient autonomy in remote interactions. These outcomes indicated that Peplau's theory enhances nurses' relational competence and communication effectiveness in technology-mediated care.

Virtual nursing environments also present distinctive communication challenges, including the absence of visual cues, which increases reliance on voice tone, pacing, clarity, and active listening (Boström et al., 2020; Holmström et al., 2022). Drawing on Peplau's interpersonal theory, Fronczek (2019) described strategies nurses used to foster a sense of presence in virtual care, including empathetic verbal engagement and patient-centered guidance. Peplau (1991) highlighted nurses' roles as educators and advocates during the working phase of the nurse–patient relationship. These roles are significant in telephone triage, where nurses help callers make decisions, offer emotional support, and clarify next steps in care. Together, these studies demonstrated that Peplau's relational

approach supports clear and effective communication in remote nursing and helps explain the challenges of virtual and telephone-based care.

Rationale for Selecting Peplau's Theory

Telephone triage requires nurses to establish trust, assess symptoms, and provide clinical direction without the benefit of face-to-face interaction. Peplau's theory of interpersonal relations offers a structured framework for guiding nurse–patient communication in these conditions. The theory emphasizes goal-directed communication and therapeutic engagement across three phases of interaction: orientation, working, and termination (Peplau, 1991). Nurses use these phrases to manage emotionally charged calls and navigate language differences and culturally influenced communication patterns (Eriksson et al., 2020; Fronczek, 2019). The relational focus of Peplau's theory was consistent with the demands of telephone triage, where nurses rely entirely on verbal cues to understand callers' concerns and support decision-making.

Greenberg's (2009) comprehensive model of the telephone nursing process complements Peplau's interpersonal-relation framework by conceptualizing telephone nursing as a three-phase process: information gathering, cognitive processing, and clinical output. Within this model, nurses interpret caller narratives and formulate clinical judgments. They then communicate recommendations clearly. These actions reflect the nurse's roles as resource person and educator, which are central to Peplau's working phase (Graversen et al., 2020b; Senn, 2013). Together, these models highlighted the importance of structured communication and relational clarity in supporting safe and effective telephone triage.

Gustafsson and Wahlberg (2023) further extended this perspective through their telephone nursing dialogue process, which consists of opening, listening, analyzing, motivating, and ending. These stages parallel Peplau's emphasis on interpersonal relational progression across phases of care. Communication techniques such as reflective listening and open-ended questioning help validate patients' emotions and caller engagement, echoing Peplau's counseling and teaching roles. When combined with motivational interviewing, these techniques reinforce the therapeutic, patient-centered communication central to Peplau's framework.

Empirical evidence indicates that structured, empathetic communication strategies strengthen caller trust, improve understanding, and support adherence to recommended care (Fotland et al., 2024; Graversen et al., 2020a). These outcomes were consistent with the therapeutic goals reflected in Peplau's theory and with recent findings in telephone triage research (Eriksson et al., 2020). The consistency between theory and empirical evidence further supports the use of Peplau's interpersonal framework to guide research exploring communication in remote nursing encounters. Peplau's theory provides a clinically relevant foundation that links established nursing concepts with the contemporary realities of telephone triage. The compatibility of Peplau's theory with current evidence and practice models supported its application in this study, which examines how nurses manage communication challenges during telephone-based assessments.

Communication Barriers

In telephone triage, the absence of visual cues requires nurses to rely entirely on verbal communication to establish trust and collect essential health information (Graversen et al., 2019). Peplau's theory of interpersonal relations describes the relational processes nurses use to address communication barriers through purposeful engagement (Peplau, 1991). During the orientation phase, nurses establish trust by using clear verbal explanations, empathic responses, and active listening, helping callers feel understood despite the lack of physical presence (Hagerty et al., 2017; Rausch, 2023). Although researchers have consistently identified language differences as a significant communication barrier, few studies focus on how nurses describe the real-time strategies they use to manage these challenges during telephone triage encounters.

Gender, Language, Cultural Barriers

Language differences can complicate nurse–patient interactions and reduce the accuracy of the information exchanged. Peplau's interpersonal relations framework describes the communication strategies nurses use to overcome these barriers. During the working phase, nurses enact roles such as resource person and educator, using simplified language, clarification techniques, and culturally responsive communication to enhance understanding and trust (Peplau, 1991; Wasaya et al., 2021). These patient-centered approaches were used to ensure that essential health instructions remain accessible, even in encounters characterized by linguistic and cultural diversity (Gerchow et al., 2021; Gustafsson & Wahlberg, 2023).

Emotional Stress

Because of the urgency of their health concerns, callers using telephone triage often experience heightened emotions, such as anxiety or fear. Peplau's theory of interpersonal relations describes the importance of addressing emotional needs alongside clinical requirements (Peplau, 1991). During the orientation phase, nurses enact the role of counselor, providing reassurance, validating callers' emotions, and creating a supportive environment. Nurses used a relational approach to manage emotional stress and ensure patients feel supported throughout the interaction (Cheraghi et al., 2017).

Nurse–Patient Interaction

Peplau's theory of interpersonal relations describes the dynamic and evolving nature of nurse–patient interactions by identifying distinct phases that foster therapeutic relationships (Peplau, 1991). These phases: orientation, working, and termination, were consistent with telephone triage, as nurses build rapport, provide education, and ensure that patients leave the interaction feeling empowered and informed. By actively engaging patients throughout these phases, nurses address clinical needs and emotional well-being, thereby advancing a holistic approach to care. Nurses used structured interactions guided by Peplau's framework to strengthen patient-centered care and enhance overall outcomes during remote assessments (Senn, 2013).

By structuring nurse–patient interactions around Peplau's theory of interpersonal relations, I aimed to strengthen communication quality in telephone triage. I used the framework to guide my examination of how nurses addressed challenges associated with verbal-only communication, language differences, and heightened emotional responses.

Peplau's focus on trust-building, clarity, and therapeutic engagement provided a foundation for understanding how nurses supported both clinical decision-making and emotional well-being during triage calls. Using this theory enabled me to examine telephone triage communication as a relational process rather than a purely procedural task.

Limitations of Peplau's Theory

Peplau's theory of interpersonal relations describes the development of relationships between nurses and patients through direct, one-on-one communication (Peplau, 1991). Within this framework, nurses support patients by building trust, fostering understanding, and engaging in purposeful interpersonal exchanges (Jojan & Carroll, 2025; Peplau, 1991). However, in telephone triage, nurses often communicate with individuals other than the patient, such as parents, spouses, or caregivers who call on the patient's behalf. These triadic encounters introduce additional layers of complexity. Nurses must rely on secondhand descriptions of symptoms, respond to caregivers' emotional reactions, and make clinical decisions without direct patient interaction. Peplau's original framework does not provide explicit guidance for managing these indirect communication scenarios or for supporting caregivers while simultaneously addressing patient needs (Jojan & Carroll, 2025).

Although Peplau's theory was consistent with many aspects of nurse–caller interactions in telephone triage, it requires adaptation for situations where the patient is unable or unwilling to communicate directly. Calls involving young children, adults with cognitive impairment, or distressed family members illustrate circumstances that extend

beyond the traditional dyadic structure assumed in the theory (Greenberg, 2009; Yliluoma & Palonen, 2020). Such encounters require relational strategies that include caregiver engagement and surrogate decision-making (Gustafsson & Wahlberg, 2023; Jojan & Carroll, 2025). These areas are not fully articulated within Peplau's original model. While Peplau's theory shifted nursing toward a relational, patient-centered approach grounded in communication, empathy, and psychological insight, its focus on the nurse–patient dyad limited the ability to fully address the relational dynamics present in multiparty and technology-mediated interactions (Forchuk, 2021; Hagerty et al., 2017).

Peplau introduced her theory of interpersonal relations in 1952, a time when most nursing care was provided in person (Forchuk, 2021; Peplau, 1991). However, in telephone triage and telehealth settings, nurses may rely on communication with patients, caregivers, or family members through telephone calls, video consultations, or other technology-mediated models rather than in-person interaction (Greenberg, 2009; Gustafsson & Wahlberg, 2023). This shift introduced new relational and communication challenges that Peplau's original one-to-one framework does not fully address (Greenberg, 2009). Scholars increasingly acknowledge the limitations of traditional interpersonal models in these evolving contexts and emphasize the need to explore how nurses build trust, assess needs, and deliver care through indirect and remote channels (Jojan & Carroll, 2025).

Communication mediated through third parties introduces additional complexity and requires nurses to balance clinical accuracy with empathy, cultural sensitivity, and clear guidance. In telephone triage and telehealth settings, nurses may rely on

communication with patients, caregivers, or family members rather than in-person interaction, which can affect how information is interpreted and decisions are made. Because Peplau's theory does not fully address these indirect and multiparty communication dynamics, examining how nurses adapt relational strategies in these contexts is important. In this study, I examined how RNs navigated communication challenges during telephone triage, engaged with third-party callers, and developed strategies to support safe, effective, and patient-centered care despite the absence of direct patient contact (Gustafsson & Wahlberg, 2023).

Alternate Theory Considered

I also considered communication accommodation theory as a potential framework for this study. The theory describes how individuals adjust tone, language, and speech patterns during interaction, offering insight into linguistic alignment and communication style (Giles et al., 2023; Hoffman & Zhang, 2022). These features are relevant to telephone triage. However, communication accommodation theory does not adequately address the therapeutic and relational dimensions of communication that are central to nursing practice. Telephone triage requires nurses to establish trust, manage emotions, and support patient-centered decision-making, tasks that extend beyond the scope of accommodation processes alone.

Peplau's theory of interpersonal relations offers a more comprehensive foundation for examining the communication demands of telephone triage by emphasizing therapeutic engagement, relational roles, and the interpersonal processes that support effective clinical interaction (Senn, 2013). The theory's structured phases and defined

relational roles were consistent with the study’s focus on how nurses navigate emotional, linguistic, and cultural barriers during telephone assessments. In contrast, communication accommodation theory emphasizes speech and tone modification more narrowly and does not fully account for the therapeutic aspects of communication, which are essential to understanding nurses’ experiences in this setting. For these reasons, Peplau’s theory served as the primary framework for the study.

Literature Review Related to Key Variables and/or Concepts

The literature presented in this chapter highlights the complex interplay of communication barriers that influence nurse–caller communication during telephone triage. These barriers include cultural and linguistic differences, emotional stress, and interactional dynamics. Recent studies synthesize current knowledge related to the core communication challenges addressed by this study’s RQs. In this study, I examined how RNs experience and navigate communication barriers during triage encounters. I also examined cultural and linguistic differences, emotional dynamics, and interactional complexities that shape these interactions. Four themes consistently appear in the literature: (a) communication barriers, (b) cultural, gender, and language considerations, (c) emotional stress, and (d) nurse–patient interaction challenges (Afriyie, 2020; Fotland et al., 2024; Gustafsson & Wahlberg, 2023).

Each concept contributes to the study’s RQs by highlighting how nurses manage verbal-only interactions, support callers from diverse backgrounds, and respond to emotional distress in remote settings. Effective communication is central to safe and effective telephone triage. However, much of the existing research prioritizes triage

protocols, decision-support tools, and patient satisfaction metrics (Erkelens et al., 2021; Graversen et al., 2020b). These priorities have resulted in a gap in understanding how nurses experience triage communication and adapt their strategies in real time.

The gap justified selecting interpretive description as the methodological approach for the study. Interpretive description is well-suited to health care research because it enables close examination of clinical experiences and supports the identification of meaningful patterns grounded in participants' accounts (Thompson Berdine et al., 2021; Thorne, 2016). The approach was consistent with Peplau's theory of interpersonal relations, which emphasizes relationship building, role enactment, and therapeutic communication as essential components of nursing practice (Forchuk, 2021; Peplau, 1991). Although some studies cited in this section are older, their findings continue to function as foundational influences on nursing theory and the development of qualitative methods. The literature search did not identify more recent sources that address these theoretical and methodological contributions as effectively, which demonstrates their continued relevance.

Communication Barriers

Effective communication underpins nurse-led telephone triage, as nurses must rely solely on auditory information when assessing callers' health concerns. Without visual cues, such as posture or facial expression, nurses interpret vocal tone, pacing, and speech clarity to make safe clinical decisions (Ängerud et al., 2023). These communication demands necessitate advanced listening skills and the ability to detect subtle vocal indicators of urgency or distress.

Callers often provide symptom descriptions that are either overly brief or excessively detailed, making it difficult for nurses to identify relevant clinical information. Unclear or disorganized narratives can obscure warning signs (Ciccolini et al., 2022; Ehly & Fitzwater, 2021). These narratives can also compromise the accuracy of triage decisions. Incomplete or ambiguous symptom reporting may lead to treatment delays or inappropriate recommendations, underscoring the importance of structured questioning strategies that promote clarity and support patient safety (Berntsson et al., 2022).

Caller characteristics further influence communication and assessment outcomes. Older adults and individuals with cognitive or mental health challenges often require additional time (Bensoussan et al., 2025). This need can result in longer calls and increased wait times in high-demand systems. Even when video options are available, they provide limited visual context compared to in-person care. Strengthening nurses' communication strategies remains essential for ensuring timely, accurate assessments under these constraints.

The structure of the triage call influences communication effectiveness. Nurses working in emergency call centers report heightened stress when managing calls involving psychiatric symptoms or older adults, who commonly require more comprehensive assessment (Bensoussan et al., 2025). Evidence shows that structured triage systems can reduce unnecessary in-person visits without diminishing patient satisfaction (Chen et al., 2022). Standardized protocols enable nurses to efficiently

categorize symptom severity, thereby reserving in-person care for patients who require physical evaluation (Fotland et al., 2024).

Greenberg's (2009) model describes a systematic structure that enhances communication clarity and decision-making accuracy. Nurses who use decision-support tools often perform triage more effectively than general practitioners, suggesting that structured communication processes, combined with technology support, facilitate accurate assessment (Graversen et al., 2020b). The integration of such models with updated decision-support systems may improve the consistency and reliability of remote assessments.

Even with these supports, persistent barriers disrupt effective information exchange. Binary or either–or questions, often embedded in structured protocols, can limit callers' ability to express their symptoms accurately (Erkelens et al., 2021). Options such as "sharp or dull pain" or "fever, yes or no" may not reflect callers' experiences, leading to incomplete or misleading information. Open-ended and exploratory questioning techniques help elicit more comprehensive responses and improve assessment accuracy.

Specific populations present additional communication challenges. Jomard et al. (2023) found that nurses frequently omitted critical geriatric information, including mobility, functional dependency, polypharmacy, and recent hospitalizations, during calls with older adults. Missing these details increases the risk of unnecessary emergency referrals and reduces the effectiveness of triage recommendations, underscoring the need for geriatric-focused communication strategies.

Peplau’s theory of interpersonal relations describes how communication breakdowns limit the development of therapeutic engagement during the orientation phase, where nurses establish trust and gather foundational information (Peplau, 1991). Inadequate communication may limit nurses’ ability to assume relational roles, such as educator or counselor, leading to interactions that resemble gatekeeping rather than collaborative assessment. Strengthening communication practices supports the therapeutic processes essential to holistic, patient-centered care.

Shifting triage to text-based digital platforms adds further complexity. Without auditory cues, nurses lose access to tone and emotion, which are essential for interpreting urgency and building rapport (Rydell et al., 2025). The use of structured questioning strategies, when explicitly adapted for text-based interactions, can mitigate these limitations and improve assessment accuracy (Murdoch et al., 2014). Digital triage requires competency in written communication and proficiency in interpreting incomplete or ambiguous text messages (Johnson et al., 2015).

Telephone triage also restricts nurses’ ability to evaluate physical symptoms directly. Nurses rely on verbal descriptions and vocal characteristics, such as breathing patterns or speech irregularities, to interpret clinical conditions (Kaminsky et al., 2020; Rothwell et al., 2012). These limitations contribute to uncertainty, especially in cases involving respiratory distress or unclear pain descriptions. Advanced interpretive skills and precise follow-up questions help compensate for the absence of visual information (Gustafsson & Wahlberg, 2023).

Computerized triage systems introduce additional communication barriers. Tools such as the Netherlands Triage Standard (NTS) require strict adherence to scripted questions, limiting nurses' ability to personalize conversations or address emotional cues (Spek et al., 2022, 2023). Rigid protocols can weaken rapport, reduce caller engagement, and overlook concerns that do not align neatly with predefined categories. Diagnostic limitations are especially evident in urgent presentations such as chest pain or shortness of breath (Spek et al., 2024). Systems designed with flexible frameworks better support the nuanced clinical reasoning required during telephone triage.

Rigid protocols may narrow the relational space needed for collaborative decision-making. Nurse-led triage guided by computerized systems often emphasizes checklist completion over exploring caller expectations, which can weaken trust and rapport (MacLellan et al., 2023; Murdoch et al., 2014). Nurses sometimes modify or bypass system recommendations when they believe their clinical judgment provides safer options, reflecting ongoing tension between standardized procedures and individualized care (Wouters et al., 2020b). Training that emphasizes relational communication and clinical reasoning may help nurses navigate this tension while maintaining patient safety and protocol adherence.

Structured communication approaches, such as scheduled follow-up calls, also improve patient understanding and satisfaction. Nurse-led monitoring promotes continuity of care, reinforces education, and provides reassurance, particularly for caregivers managing pediatric illnesses (Jernigan et al., 2020; Leyva et al., 2023;

Sandelius & Wahlberg, 2020). These strategies help maintain therapeutic engagement across multiple encounters.

Shared decision-making remains limited in telephone triage. Although nurses often provide emotional support and active listening, callers report minimal involvement in care decisions (Mattisson et al., 2023). When nurses emphasize assessment and directive advice without eliciting callers' preferences, callers may feel excluded or disempowered, which can reduce satisfaction and trust (Rysst Gustafsson & Eriksson, 2021). Promoting collaborative dialogue supports clearer understanding and more patient-centered recommendations.

Nurses employ adaptive communication strategies to address the lack of visual cues, including simplifying language, guiding callers through self-assessment, and interpreting vocal features that signal clinical urgency (Lopriore et al., 2019). Simulation-based training enhances these skills by offering realistic scenarios requiring active listening, clinical judgment, and emotional regulation (Neuman, 2024). Self-assessment tools help nurses evaluate their communication effectiveness and identify areas for improvement, promoting ongoing skill development (Johnson et al., 2015). Such training improves the accuracy of triage outcomes and strengthens the interpersonal quality of nurse–caller interactions.

Communication breakdowns contribute to caller dissatisfaction and increase the risk of errors. Practices such as relying on closed-ended questions, failing to clarify ambiguous information, or missing opportunities to verify understanding often lead to incomplete assessments and inappropriate advice (Rysst Gustafsson & Eriksson, 2021).

Nurses who use open-ended questioning, confirm comprehension, and encourage elaboration support more transparent symptom reporting and build stronger therapeutic relationships. The use of these strategies enhances clinical accuracy and reinforces trust between nurses and callers.

Caller engagement also affects the accuracy of triage outcomes. Callers who provide concise and relevant information enable clearer assessments and more accurate recommendations (Roivainen et al., 2020). However, strict time constraints and performance monitoring can limit nurses' ability to engage in exploratory questioning (Spek et al., 2022, 2023). Reducing structural constraints and supporting conversational flexibility may allow nurses to tailor communication more effectively, thereby improving safety, caller satisfaction, and overall triage quality.

Cultural, Gender, and Language Considerations

Cultural and linguistic barriers frequently influence how nurses assess callers during telephone triage. Callers from diverse backgrounds may communicate symptoms in non-clinical language or minimize expressions of pain and distress due to culturally influenced communication norms (Ciccolini et al., 2022). Such culturally influenced communication patterns heighten the risk that nurses will underestimate callers' needs or inaccurately assess the urgency of symptoms. Language barriers further exacerbate this risk, particularly when health care organizations lack professional interpreters. In these situations, family members such as spouses or children may be relied on for interpretation. Informal interpreters without adequate training often omit or misrepresent critical clinical details, leading to diagnostic delays and compromising the quality of

patient care (Berntsson et al., 2022). Consequently, recognizing and addressing these barriers is essential for accurate assessments and safe, effective nurse–caller communication in telephone triage.

For example, callers experiencing chest discomfort may struggle to articulate their symptoms when responding to structured triage questions. Ambiguous phrases such as “not feeling well” or prolonged pauses can cause uncertainty among nurses (Erkelens et al., 2021). This uncertainty may affect how nurses judge symptom severity. Additionally, cultural norms that discourage callers from openly expressing pain may lead nurses to underestimate the urgency of callers' conditions (Fotland et al., 2024; Höglund & Holmström, 2008). Consequently, nurses require heightened cultural sensitivity and precise questioning techniques to assess callers’ conditions during telephone triage interactions accurately.

Health care systems frequently rely on standardized biomedical terminology that may not accurately reflect callers' everyday language, health beliefs, or cultural expressions (Fotland et al., 2024; Islam et al., 2021). When triage protocols and decision-support tools fail to accommodate diverse symptom descriptions, the likelihood of miscommunication increases (Holmström et al., 2021b). Rigid protocols may also limit nurses’ ability to accurately evaluate callers’ conditions when patients use language that differs from standardized clinical expectations. For instance, in pediatric mental health telephone triage, mismatches between callers' symptom descriptions and protocol criteria have resulted in inappropriate referrals and delays in treatment (Green et al., 2023). Therefore, health care organizations must develop flexible triage approaches and

culturally responsive communication methods to improve the accuracy and effectiveness of telephone-based nursing assessments.

Addressing communication challenges in telephone triage requires culturally responsive strategies and flexible assessment tools. The use of evidence-based, collaboratively developed, structured guidelines that incorporate input from diverse patient populations can improve the consistency and accuracy of urgency assessments. For example, researchers have demonstrated enhanced reliability and adaptability of obstetric telephone triage instruments designed through cross-cultural collaboration (Engeltjes et al., 2020). Despite these advances, nurses working under high-stress conditions may strictly adhere to rigid protocols, which can complicate the accurate interpretation of symptoms expressed outside standardized formats (Eriksson et al., 2020; Holmström et al., 2021b). Therefore, protocol flexibility and culturally informed guidelines may support nurses in making precise clinical decisions during telephone triage interactions.

Training nurses in culturally responsive communication and triage techniques can increase their confidence and preparedness when caring for diverse patient groups (Ciccolini et al., 2022; Hawkins et al., 2022). Clear and respectful communication can significantly improve patient outcomes, particularly in high-stakes clinical specialties such as ophthalmology and pediatric oncology, where timely interventions are crucial (Hanrahan et al., 2022; Hawkins et al., 2022). Simulation-based education, which features diverse patient scenarios, can further strengthen nurses' ability to effectively assess and support culturally and linguistically diverse patients (Ciccolini et al., 2022;

Hawkins et al., 2022). Consequently, achieving equity in telephone triage involves standardized protocols and tailored communication that addresses callers' specific cultural, emotional, and linguistic needs (Gren et al., 2022b; Holmström et al., 2016).

Telephone triage nurses frequently encounter a heightened risk of miscommunication in urgent clinical situations due to inadequate access to professional interpreters. Relying on family members who lack appropriate medical terminology, neutrality, and formal interpreter training creates significant clinical and ethical concerns, especially during sensitive health care discussions (Berntsson et al., 2022; Watts et al., 2019). Untrained family interpreters may unintentionally omit or inaccurately convey critical health information, leading to misunderstandings and incorrect triage outcomes (Plocienniczak et al., 2022; Watts et al., 2019). Such communication errors can delay timely medical interventions and result in inappropriate care recommendations, compromising patient safety. Consequently, health care organizations must ensure that telephone triage nurses have timely access to professional interpretation services to facilitate clear communication, uphold ethical standards, and promote equitable health care delivery.

Patients with LEP face additional barriers during telephone triage, negatively affecting their trust and confidence in health care services. For instance, Choudhary et al. (2023) and Watts et al. (2019) reported lower utilization of pediatric nurse advice lines among Spanish-speaking families, potentially reflecting concerns about communication clarity and perceived trustworthiness. Insufficient availability of professional interpretation services exacerbates health care disparities and increases hesitancy among

linguistically diverse populations to seek telephone-based medical care (Tam et al., 2024). Health care systems can reduce these communication barriers by implementing standardized yet culturally flexible triage protocols that feature structured, easily understandable questions designed for diverse literacy levels (Engeltjes et al., 2020; Eriksson et al., 2020). Incorporating culturally responsive communication strategies into telephone triage practices is crucial for enhancing equity, fostering patient confidence, and promoting healthcare engagement.

Structured triage tools are central to promoting equitable health care. These tools help reduce unconscious bias by guiding nurses toward consistent and evidence-based clinical decisions. Specifically, standardized questions enable nurses to evaluate callers equally, irrespective of gender, language proficiency, or cultural background (Baldwin et al., 2020; Engeltjes et al., 2020). Using this approach can minimize gender disparities in referral rates (Höglund & Holmström, 2008; Holmström et al., 2021a) and significantly reduce the risk of miscommunication for patients with LEP (Berntsson et al., 2022; Graversen et al., 2020a). When nurses use structured tools alongside culturally competent communication strategies, patient care becomes more equitable, fair, and respectful (Baldwin et al., 2020; Ciccolini et al., 2022).

Gender bias also significantly influences telephone triage outcomes beyond cultural and linguistic factors. Research indicates that nurses more frequently refer male callers for in-person evaluations than female callers presenting with similar symptoms (Höglund & Holmström, 2008; Holmström et al., 2021a). Such findings suggest that nurses may unintentionally treat men’s symptoms as more urgent while viewing women’s

complaints as emotional or less critical. Further, gender assumptions shape interactions between nurses and callers. Nurses may view female callers as more expressive, evoking greater empathy but potentially diminishing the perceived urgency of their symptoms (Höglund & Holmström, 2008). Conversely, nurses may perceive male callers as stoic or hesitant, which increases the likelihood of underassessment or missing critical warning signs. Nurses tend to feel more comfortable communicating with female callers, whereas interactions with male callers can be strained or involve subtle power dynamics (Höglund & Holmström, 2008). Thus, recognizing and mitigating gender bias through reflective practice and targeted training is essential for equitable and accurate telephone triage assessments.

Gender bias influences nurses' perceptions of caregiving roles during telephone triage interactions. Nurses often assume that fathers who call about their children possess limited caregiving knowledge or skills, which can lead them to undervalue fathers' symptom reports and to hesitate to recommend necessary follow-up care (Höglund & Holmström, 2008). Additionally, nurses describe older men from rural areas as being less inclined to seek health care, due to traditional masculine norms that emphasize self-reliance and discourage seeking help (Holmström et al., 2016). To counteract gender bias, nurses should engage in reflective practice and pursue ongoing education. Training programs incorporating case-based learning and role-play scenarios can effectively challenge existing assumptions about gender roles in caregiving and communication. Research indicates that employing open-ended questions and consistently validating callers' concerns enhances assessment accuracy and reduces bias (Ernesäter et al., 2016).

Person-centered and respectful communication practices enable nurses to build trust and create safe environments where callers of all genders can openly discuss their health care needs (Greenberg, 2009; Holmström et al., 2016).

Caller characteristics, such as gender, language proficiency, and cultural background, introduce additional complexity beyond the inherent limitations of communication in telephone triage. Variations in language fluency frequently contribute to misunderstandings, particularly among callers with LEP who struggle to describe symptoms clearly or accurately interpret medical advice (Watts et al., 2019). Cultural expectations further shape communication styles, influencing how openly callers share health concerns, which may compromise assessment accuracy during triage interactions (Westin et al., 2024). Additionally, gender-related communication patterns can affect symptom expression by callers and nurses' interpretation of these symptoms, particularly in situations involving cross-gender interactions that generate discomfort (Yliluoma & Palonen, 2020). Addressing these individual-level barriers through culturally sensitive, linguistically appropriate, and gender-aware communication strategies can enhance the safety, inclusivity, and person-centeredness of telephone triage care.

Gender shapes caller behaviors during telephone triage interactions. Male callers often differ from female callers in terms of symptom disclosure, help-seeking behaviors, and communication expectations. Callers identifying as male may minimize symptom severity, provide limited symptom details, or refrain from openly expressing emotional distress, increasing the risk of undertriage or missed clinical cues (Westin et al., 2024; Yliluoma & Palonen, 2020). In certain instances, male callers may be reluctant to engage

deeply in conversations or to seek rapid solutions without thorough questioning, thereby compromising nurses' ability to accurately assess symptoms and build effective rapport. Therefore, triage nurses must recognize and adapt to these gendered communication patterns by employing targeted questioning strategies that ensure accurate and equitable care.

Gender-based assumptions further affect nurses' interpretation and prioritization of callers' symptoms during telephone triage. Female callers often communicate symptoms with greater detail and expressiveness, potentially facilitating comprehensive assessments while also increasing the risk of bias in clinical judgment (Höglund & Holmström, 2008). Nurses may incorrectly interpret severe medical symptoms such as chest pain in women as emotionally driven or anxiety-related rather than recognizing urgent health concerns (Holmström et al., 2021a; Wouters et al., 2020a). Such misinterpretations can delay critical medical interventions and reduce opportunities for timely escalation to emergency care (Graversen et al., 2023). Incorporating training that directly addresses gender bias into nurses' professional education and embedding gender-sensitive strategies into triage protocols can enhance fairness, accuracy, and overall quality of clinical decision-making (Holmström et al., 2021a).

Gender dynamics within telephone triage interactions influence nurses' ability to establish rapport and assert clinical authority effectively. Female nurses may experience resistance from male callers who question their expertise or challenge their clinical recommendations during triage calls (Yliluoma & Palonen, 2020). Such interactions can diminish nurses' conversational control and impede trust-building efforts. Additionally,

gender differences between nurses and callers may generate discomfort, especially during discussions involving reproductive or sexual health, thereby restricting open communication and limiting the completeness of symptom disclosures (Westin et al., 2024). Implementing targeted training in communication techniques and ensuring flexibility in triage protocols may help address these gender-related barriers, fostering inclusive, respectful, and effective interactions during telephone triage.

Language barriers in telephone triage settings further compromise the accuracy and safety of clinical assessments. Callers with LEP often struggle to describe symptoms, follow health care instructions, or fully engage in structured triage dialogues. Pediatric primary care settings frequently lack consistent access to interpreter services during after-hours calls, significantly restricting clear communication for non-English-speaking families (Watts et al., 2019). Even when interpreter services are available, delays or inconsistent use may result in incomplete symptom assessments or misunderstandings, thereby adversely affecting clinical decision-making. Ensuring reliable and timely access to trained interpreter services across all operating hours strengthens communication accuracy and equity, enhancing the reliability and safety of telephone triage care.

Limited access to professional interpreter services during telephone triage necessitates that nurses modify their communication strategies when interacting with callers who have LEP. Without trained interpreters, nurses often simplify their language, repeat key phrases, or depend on informal interpreters, such as family members or children, to facilitate communication (Watts et al., 2019). However, relying on untrained interpreters raises clinical and ethical concerns, including inaccurate symptom reporting,

breaches of patient confidentiality, and misunderstandings of medical instructions (Berntsson et al., 2022; Plocienniczak et al., 2022). Such concerns negatively affect patient safety and compromise the effectiveness of telephone triage, underscoring the importance of providing consistent access to professional language interpretation services.

Additionally, language barriers during telephone triage interactions can affect callers' confidence in communication and their adherence to health care recommendations. Callers with LEP often hesitate to ask necessary follow-up questions or seek clarification about care instructions due to language-related challenges, which can decrease their trust and understanding of health care guidance (Choudhary et al., 2023; Tam et al., 2024). Communication barriers frequently lead to reduced adherence to medical advice and increased frequency of follow-up calls or unnecessary emergency department visits (Bibi et al., 2021; Watts et al., 2019). Ensuring consistent availability of trained professional interpreters during triage interactions enhances communication accuracy, strengthens caller trust, improves health care safety, and promotes equitable health outcomes for linguistically diverse caller populations (Plocienniczak et al., 2022; Watts et al., 2019).

Professional interpreters involved in telephone triage enhance language accessibility, but they also create additional communication complexities. Nurses who communicate through interpreters must rely on a third party, which alters the conversational rhythm and disrupts the natural dialogue between the nurse and caller (Watts et al., 2019). Interpreter-mediated conversations can hinder nurses’ ability to

quickly establish rapport, respond promptly, and adapt their communication based on subtle auditory cues (Rysst Gustafsson & Eriksson, 2021; Yliluoma & Palonen, 2020). The absence of direct interaction complicates nurses' accurate interpretation of emotional tone, urgency, and symptom severity due to the loss of non-verbal vocal signals, such as changes in pitch, hesitation, or breathing patterns (Eriksson et al., 2020; Holmström et al., 2022). Consequently, triage assessments may become slower and clinically less accurate. Health care organizations can reduce these issues by implementing structured interpreter protocols and providing nurses with specialized training in triadic communication methods, thus improving efficiency, emotional responsiveness, and assessment accuracy in multilingual telephone triage settings (Gustafsson & Wahlberg, 2023; Johnson et al., 2015; Watts et al., 2019).

Cultural beliefs and norms significantly shape callers' communication during telephone triage interactions and influence how they interpret clinical advice. Callers from non-Western cultural backgrounds often describe their symptoms using terminology, metaphors, or conceptual frameworks that are unfamiliar to clinicians trained in biomedical models. Some callers prioritize spiritual or traditional interpretations of illness, which may lead to hesitation or resistance to medical explanations that differ from their established beliefs (Westin et al., 2024). Additionally, modesty norms or discomfort in speaking with nurses of a different gender may lead callers to avoid discussing specific symptoms, particularly those related to reproductive or sexual health (Yliluoma & Palonen, 2020). These culturally driven communication patterns can limit symptom disclosure and reduce clarity in clinical assessment.

Integrating culturally responsive communication strategies into triage protocols promotes better mutual understanding, accuracy, and respectful, patient-centered care.

Cultural context significantly shapes callers' symptom expressions and responses during telephone triage, influencing nurses' interpretations of clinical urgency. Nurses who evaluate a caller’s tone, choice of words, or hesitation without understanding culturally specific communication patterns risk making inaccurate clinical assessments. Some cultural groups perceive pain expression as inappropriate or shameful, leading to symptom underreporting. In contrast, other cultures encourage expressiveness to demonstrate sincerity or seek validation from health care providers (Westin et al., 2024; Yliluoma & Palonen, 2020). Nurses lacking cultural awareness may underestimate or overestimate the severity of a caller's condition. Therefore, training nurses in culturally responsive communication strategies is essential to accurately identify diverse symptom presentations, thereby improving clinical assessments and patient safety during telephone-based triage interactions.

Caller expectations about health care access and the urgency of their situation directly affect their responses to telephone triage advice. Callers accustomed to health care systems that offer direct physician access may expect immediate clinical attention regardless of symptom severity. Consequently, they may perceive nurses' advice to self-manage symptoms or schedule delayed follow-up care as dismissive or inadequate (Westin et al., 2024; Yliluoma & Palonen, 2020). Misaligned expectations can lead to caller frustration, reduced adherence to clinical recommendations, and repeated calls seeking additional reassurance or faster access to care. Communicating the purpose of

triage and describing care pathways in culturally sensitive, patient-centered terms can enhance callers' understanding and strengthen their trust in the triage process.

Unconscious bias often shapes nurses' communication practices with callers from culturally diverse backgrounds during telephone triage. Nurses without adequate cultural competence training may unintentionally shorten interactions, overlook culturally sensitive issues, or employ rigid communication styles, misaligning communication with callers' needs and expectations (Westin et al., 2024; Yliluoma & Palonen, 2020). Such communication oversights reduce callers' perceptions of being heard and respected, potentially undermining their trust in triage services. Nurses who fail to adapt their language or explicitly acknowledge cultural differences compromise the person-centeredness of interactions, thereby limiting the accuracy of assessments and the overall quality of care. Integrating culturally responsive approaches into triage protocols and ongoing professional training promotes equitable and respectful communication, enhances patient engagement, and improves clinical outcomes.

Emotional Stress Barrier

Emotional stress significantly impacts the quality and safety of telephone triage interactions. Nurses performing telephone triage must accurately assess callers' symptoms, make informed clinical decisions, and provide reassurance without visual cues (Lopriore et al., 2019). Consequently, reliance solely on verbal communication intensifies cognitive and emotional demands on nurses (Eriksson et al., 2020; Holmström et al., 2022). Such increased demands negatively affect clinical judgment, reduce communication clarity (Graversen et al., 2020b), and may compromise the accuracy and

reliability of triage decisions (Berntsson et al., 2022; Holmström et al., 2022; Huibers et al., 2012). Implementing targeted emotional resilience training and communication support systems may help nurses manage stress and enhance the accuracy of telephone triage assessments.

Nurses providing child and adolescent psychiatric telephone triage may experience elevated stress levels because they frequently interact with emotionally distressed callers and have limited access to structured assessment tools. The emotional intensity of these interactions, combined with the limitations of standardized triage instruments, heightens nurses' vulnerability to stress, impairing their communication effectiveness and decision-making (Green et al., 2023). Robust, targeted training programs designed specifically for psychiatric triage contexts are essential. Such programs may provide nurses with structured assessment tools and strategies for managing emotional distress, thereby supporting effective communication, improving triage accuracy, and reducing workplace stress (Green et al., 2023).

Nurses frequently experience emotional strain during urgent or complex telephone triage calls, especially those involving pediatric patients, psychiatric crises, or vulnerable older adults (Holmström et al., 2021a; Islam et al., 2021). Research indicates that RNs commonly report elevated stress, anxiety, and moral conflict when managing emotionally charged interactions with callers who exhibit distress, anger, or confusion (Graversen et al., 2023; Holmström et al., 2022). Providing nurses with targeted emotional support resources and structured coping strategies is critical to alleviating

emotional distress, improving decision-making quality, and maintaining effective communication with callers in high-stakes triage situations.

Callers’ emotions, particularly worry or anxiety, are also essential clinical indicators during telephone triage. For instance, parental worry expressed in pediatric triage calls correlates significantly with subsequent hospitalization outcomes, highlighting the clinical relevance of nurses' awareness of callers' emotional states (Gren et al., 2022b). Training nurses to recognize, interpret, and respond effectively to emotional cues can reduce the risks of undertriage or overtriage (Huibers et al., 2012; Islam et al., 2021). Incorporating emotional sensitivity and interpretive skills training into triage education programs enables nurses to make more accurate clinical judgments, improve caller satisfaction, and deliver safer, patient-centered care.

Communication quality significantly mediates the effectiveness of telephone triage outcomes. Huibers et al. (2012) reported that higher consultation quality correlated positively with more accurate urgency assessments, clear follow-up advice, and appropriate timing of interventions. Conversely, emotional tension and urgency negatively affected consultation quality. Structured communication frameworks, such as the telephone nursing dialogue process, support nurses to manage emotional dynamics effectively by offering a systematic, phased approach comprising opening, listening, analyzing, motivating, and ending (Gustafsson & Wahlberg, 2023). Adopting structured communication models can support nurses in navigating emotional complexities, improving clinical accuracy, and enhancing the overall quality of nurse-caller interactions during triage and care.

Technology, specifically clinical decision support software (CDSS), significantly influences nurses' emotional stress management during telephone triage. While some nurses find CDSS beneficial, particularly in uncertain or complex situations, due to its structured guidance (Holmström et al., 2020), others experience decreased autonomy and heightened stress when software recommendations conflict with their clinical judgment or when the system inadequately captures emotional subtleties (Holmström et al., 2022; Islam et al., 2021). Addressing these technological limitations involves enhancing CDSS flexibility to incorporate emotional and contextual nuances and providing nurses with targeted training to balance clinical intuition with technological support. Such improvements may enable nurses to manage emotional stress effectively and ensure more accurate, empathetic triage interactions.

Consistency in CDSS-assisted triage varies significantly across systems and clinical scenarios. While some CDSS tools strongly align with established clinical standards (Brasseur et al., 2022), others yield inconsistent triage recommendations across different operators and settings, particularly in emotionally complex or ambiguous situations (Islam et al., 2021). These findings suggest that emotional and contextual cues, which are often too nuanced for software algorithms to fully capture, remain crucial for safe and accurate triage assessments. Enhancing software capabilities to incorporate emotional and situational complexities may strengthen consistency and improve clinical reliability.

Emotionally demanding triage cases increase nursing workloads. Triage nurses perform clinical assessments, manage emotional labor, complete documentation, operate

technological systems, and conduct patient or caregiver follow-ups (Howland et al., 2020). Integrating home-monitoring systems and telehealth technologies further intensifies nurses' cognitive and emotional responsibilities (Howland et al., 2020). Incorporating simulation-based education and structured training into professional development programs can reduce emotional strain and enhance decision-making quality through reflective practice and communication coaching (Holmström et al., 2021a). Additionally, recognizing systemic inequities remains essential, as subtle biases related to gender, age, or language can influence nurses' interpretation of emotional cues and triage decision-making processes (Höglund & Holmström, 2008; Holmström et al., 2021b). Comprehensive training in addressing these biases ensures equitable and effective clinical assessments across diverse caller populations.

Cultural and linguistic barriers significantly influence how nurses assess callers during telephone triage interactions. Callers from diverse cultural backgrounds may describe their symptoms in non-clinical language or minimize their pain and distress due to culturally shaped communication norms (Ciccolini et al., 2022). Such culturally influenced communication patterns increase the risk of nurses undertriaging or inaccurately judging symptom severity. Language barriers exacerbate assessment challenges, particularly when professional interpreters are unavailable, prompting reliance on family members, often spouses or children, as informal interpreters. Informal interpreters may omit or inaccurately convey critical clinical information due to inadequate training, leading to delayed diagnoses and compromised quality of care (Berntsson et al., 2022). Health care systems must, therefore, prioritize timely access to

professional interpreter services and culturally responsive communication training to reduce misunderstandings and improve assessment accuracy in telephone triage.

For example, patients experiencing chest discomfort often have difficulty articulating their symptoms when asked structured triage questions. Ambiguous expressions, such as "not feeling well," or prolonged hesitation in responses, frequently create uncertainty among nurses about the urgency of symptoms (Erkelens et al., 2021). Additionally, cultural norms that discourage the open expression of pain may lead nurses to underestimate the severity of the patient's condition (Fotland et al., 2024; Höglund & Holmström, 2008). Nurses trained in culturally sensitive questioning techniques and active listening skills can better interpret ambiguous symptom descriptions, accurately recognize patient distress, and appropriately assess urgency in culturally diverse triage interactions.

The lack of visual cues during telephone triage poses additional challenges for callers who are culturally and linguistically diverse. Health care systems frequently rely on standardized biomedical terminology, which often fails to reflect callers' everyday language or align with their cultural health beliefs (Fotland et al., 2024; Islam et al., 2021). Triage protocols and decision-support tools that fail to accommodate diverse symptom descriptions heighten the risk of miscommunication. Inflexible assessment systems may hinder nurses’ ability to accurately evaluate callers' conditions when unexpected symptoms arise (Holmström et al., 2021b). For instance, mental health telephone triage involving children and adolescents demonstrates how mismatches between callers' descriptive language and triage system criteria result in inappropriate

referrals and delayed treatments (Green et al., 2023). Thus, triage systems must incorporate flexibility and culturally responsive practices to improve communication accuracy and clinical effectiveness for diverse caller populations.

Communication challenges in telephone triage highlight the need for culturally sensitive strategies and adaptable assessment tools. Research indicates that culturally tailored communication techniques significantly enhance caller understanding, satisfaction, and clinical assessment accuracy, particularly among diverse populations (Fotland et al., 2024; Holmström et al., 2021a). Evidence-based triage guidelines developed with input from diverse caller populations enable nurses to evaluate clinical urgency consistently and accurately (Green et al., 2023; Gustafsson & Wahlberg, 2023). Engeltjes et al. (2020) demonstrated that obstetric triage tools created through cross-cultural collaboration increased assessment reliability. Nevertheless, under stressful conditions, nurses may rely too heavily on rigid protocols, which can complicate their ability to accurately interpret culturally unique or atypical symptom descriptions (Eriksson et al., 2020; Graversen et al., 2023; Holmström et al., 2020, 2021b; Wouters et al., 2020b). Therefore, health care organizations must provide ongoing training and develop triage protocols that support culturally sensitive communication practices, enhance nurses' flexibility, and improve accuracy in telephone triage settings.

Culturally responsive communication and triage procedure training significantly improves nurses' confidence and preparedness when working with diverse caller populations (Ciccolini et al., 2022; Hawkins et al., 2022). Clear and respectful communication has a positive influence on patient outcomes, particularly in high-stakes

clinical specialties such as ophthalmology and pediatric oncology, where timely and precise care is crucial (Hanrahan et al., 2022; Hawkins et al., 2022). Simulation-based educational programs that include diverse caller scenarios enable nurses to acquire skills essential for assessing and supporting callers from varied cultural and linguistic backgrounds (Ciccolini et al., 2022; Hawkins et al., 2022). Establishing equity in telephone triage demands standardized protocols and personalized attention to individual callers' cultural, emotional, and linguistic needs (Gren et al., 2022a; Holmström et al., 2016). Consequently, health care systems must integrate ongoing culturally responsive training and tailored communication strategies to promote fairness, accuracy, and inclusive caller-centered care.

Structured triage tools further enhance equity by guiding nurses through consistent, evidence-based decision-making processes and minimizing the impact of unconscious bias during caller assessments (Holmström et al., 2021a). Standardized, structured questions facilitate equitable assessments of callers with similar symptoms, regardless of their gender, language, or cultural background (Baldwin et al., 2020; Engeltjes et al., 2020). Employing structured assessment approaches effectively reduces gender disparities in caller referral rates (Höglund & Holmström, 2008; Holmström et al., 2021a) and decreases communication barriers for patients with LEP (Berntsson et al., 2022; Graversen et al., 2020b). Thus, implementing structured triage tools alongside culturally competent communication practices enables nurses to deliver equitable, accurate, and safe telephone-based care.

Prior research consistently demonstrates that gender bias influences referral decisions and communication dynamics in telephone triage. Studies indicate that nurses refer male callers more frequently for in-person evaluation than female callers with similar symptom presentations and may interpret women's symptoms as emotional or less urgent (Höglund & Holmström, 2008; Holmström et al., 2021a). These patterns highlight how implicit gender assumptions can shape urgency assessments and nurse–caller interactions, underscoring the need for reflective practice and targeted training to support equitable clinical decision-making.

Reducing gender bias in telephone triage necessitates reflective practice training and continuous professional education. Effective educational programs should include case-based learning scenarios and role-play exercises that explicitly challenge assumptions related to gender in communication. Evidence indicates that employing open-ended questions and actively validating callers' concerns improves clinical assessment accuracy and reduces implicit gender biases (Ernesäter et al., 2016). Respectful, caller-centered communication practices foster trust and establish safe conversational environments, enabling callers of all genders to fully articulate their concerns (Greenberg, 2009; Holmström et al., 2016). Integrating these communication strategies into triage training ensures nurses provide equitable, accurate, and empathetic assessments, enhancing caller trust and overall care quality.

Emotional factors significantly shape the quality and effectiveness of communication during telephone triage interactions. Callers experiencing anxiety, frustration, or fear frequently struggle to clearly articulate their symptoms, accurately

follow nurse instructions, or fully engage in structured triage conversations (Spek et al., 2022; Westin et al., 2024). Heightened emotional states often result in disorganized narratives or exaggerated symptom presentations, which can complicate nurses' ability to conduct precise assessments. Additionally, nurses must manage their emotional responses while handling complex cases under time constraints, without visual cues, and making swift clinical decisions. The combination of cognitive demands and emotional pressure can impair nurses’ listening skills, diminish empathy, and heighten the risk of communication breakdowns (Rysst Gustafsson & Eriksson, 2021; Yliluoma & Palonen, 2020). Therefore, training programs that address emotional dynamics for both callers and nurses can significantly enhance caller satisfaction, foster clear communication, and increase triage safety and effectiveness.

Emotional distress frequently interferes with callers’ communication ability during telephone triage encounters. Individuals often seek triage assistance during times of acute pain, uncertainty, or fear, which influences how they describe their symptoms and respond to nurses’ inquiries. High anxiety levels may lead callers to speak rapidly, provide fragmented details, or deviate from the structured assessment flow (Spek et al., 2022). Moreover, in urgent or emotionally charged situations, some callers might exaggerate their symptoms due to panic. In contrast, others may minimize or withhold essential information due to embarrassment, fear of judgment, or previous negative experiences with health care providers (Westin et al., 2024). Recognizing and responding appropriately to these emotional influences enables nurses to tailor their communication approaches, resulting in more accurate assessments and reduced potential for

misunderstandings. Integrating emotional sensitivity training into nurse education enhances triage accuracy, caller safety, and overall caller experience.

Emotionally intense telephone triage calls pose significant challenges to the accuracy of clinical assessment. Without visual cues such as body language, posture, or facial expressions, nurses rely solely on auditory cues to interpret callers' emotional and physical conditions. Vocal indicators, including breathing rate, tone, pacing, and urgency, become essential assessment tools, particularly when callers present ambiguous symptoms or unclear symptom severity (Wouters et al., 2020b; Yliluoma & Palonen, 2020). Nurses require advanced listening skills and substantial clinical experience to accurately interpret these auditory cues, as misjudgments can result in undertriage, where nurses overlook urgent medical needs, or overtriage, leading to unnecessary escalation of care. Training programs emphasizing auditory assessment and reflective practice enable nurses to effectively manage emotionally charged situations and maintain clinical accuracy during high-stakes telephone triage interactions.

Emotional distress often impairs callers' abilities to process, remember, and act on triage advice provided during calls. Individuals experiencing fear, frustration, or confusion may struggle to comprehend instructions or forget essential recommendations during or after the interaction (Rysst Gustafsson & Eriksson, 2021). Additionally, when nurses communicate rapidly, interrupt callers, or fail to acknowledge emotional concerns, callers may interpret these interactions as dismissive, which can intensify their distress and diminish trust (Mattisson et al., 2023). Heightened emotional tension interferes with effective communication, compromising the therapeutic value of telephone interactions

even when clinical advice is accurate and appropriate. Therefore, nurses should address emotional cues explicitly and deliver instructions clearly and calmly, thereby promoting better understanding, reducing anxiety, and fostering greater trust and confidence in the triage process.

Telephone triage nurses face substantial emotional and cognitive demands that directly impact their communication quality and clinical decision-making abilities (Holmström et al., 2022; Yliluoma & Palonen, 2020). Each triage interaction requires nurses to quickly make high-stakes clinical judgments without visual assessments, significantly elevating cognitive complexity and stress because they rely solely on verbal communication (Lopriore et al., 2019; Wouters et al., 2020b). The absence of nonverbal cues and expectations to remain calm and clinically precise intensifies nurses' cognitive workloads and emotional stress levels (Eriksson et al., 2020; Graversen et al., 2020b). Additionally, repeated encounters with distressed callers, unclear symptom descriptions, unrealistic caller expectations, and heavy call volumes exacerbate emotional fatigue, particularly during extended shifts or peak demand periods (Eriksson et al., 2020; Skogevall et al., 2020). Recognizing these emotional demands highlights the importance of supportive workplace initiatives, including structured breaks, peer debriefing sessions, and specialized training in emotional regulation and resilience (Gustafsson & Wahlberg, 2023). Such strategies enhance nurses' emotional well-being, ensuring sustained clinical effectiveness and communication quality.

Telephone triage nurses must consistently remain composed and empathetic, irrespective of callers' emotional states or communication approaches (Eriksson et al.,

2020; Yliluoma & Palonen, 2020). Sustained exposure to emotionally charged or confrontational calls significantly increases psychological stress, heightening nurses' risk of burnout (Skogevall et al., 2020). Under conditions of emotional fatigue, nurses may unintentionally adopt task-oriented behaviors, such as speaking monotonously, interrupting callers, or strictly adhering to rigid protocols, to maintain efficiency and emotional detachment (Holmström et al., 2022; Rysst Gustafsson & Eriksson, 2021). Although these behaviors may serve as protective coping mechanisms, they diminish communication effectiveness and weaken nurse–caller rapport (Graversen et al., 2020b; Holmström et al., 2022). Establishing supportive work environments and delivering targeted communication training enables nurses to manage emotional pressures effectively, foster self-awareness, and prioritize caller-centered care consistently (Gustafsson & Wahlberg, 2023; Johnson et al., 2015).

Emotionally intense telephone triage calls frequently impose significant psychological burdens on nurses. Situations involving acute pediatric illnesses, severe unmanaged pain, terminal conditions, or potential emergencies compel nurses to rapidly assess callers without visual cues or the capacity to provide physical reassurance. In these emotionally demanding contexts, nurses often experience distress and uncertainty, particularly when callers express high levels of anxiety or provide ambiguous verbal descriptions of symptoms (Westin et al., 2024; Yliluoma & Palonen, 2020). Such emotional strain may affect clinical judgment, leading nurses to adopt overly cautious approaches or unnecessarily escalate care to avoid potential risks. Implementing structured training in emotional regulation and reflective practice supports nurses in

achieving balanced, accurate, and clinically appropriate decision-making during high-stakes telephone triage encounters.

Telephone triage nurses strive to establish a communication environment that ensures callers' safety, clarity, and emotional reassurance. Nurses achieve this by using calm, steady vocal tones, delivering clear, actionable information, and demonstrating active listening throughout the interaction. Callers who experience emotionally attuned communication report feeling greater control and reduced anxiety, even when they face health-related uncertainties (Mattisson et al., 2023; Rysst Gustafsson & Eriksson, 2021). Addressing emotional and clinical dimensions enhances caller confidence in the triage process and increases overall satisfaction with their experience. Prioritizing empathetic communication alongside clinical accuracy ensures that callers perceive their concerns as being heard, respected, and appropriately addressed, thereby reinforcing trust and support during telephone triage interactions.

Neglecting emotional aspects during telephone triage undermines the therapeutic relationship between nurses and callers. Callers may perceive interactions as rushed, dismissive, or impersonal when nurses prioritize clinical tasks over emotional cues. Such perceptions frequently lead to caller dissatisfaction, reduced adherence to medical advice, and repeated service contacts due to unresolved concerns (Mattisson et al., 2023; Rysst Gustafsson & Eriksson, 2021). Furthermore, overlooking emotional communication restricts nurses’ ability to clarify misunderstandings and strengthen rapport, both of which are essential for building trust in telephone-based care (Spek et al., 2023). Integrating emotional responsiveness into triage interactions enables nurses to enhance

clinical assessment accuracy, foster stronger rapport, and improve overall caller experiences, thereby supporting more effective caller-centered telephone care.

Proactive communication through structured follow-up calls significantly reduces emotional strain during telephone triage interactions. Regular nurse-led follow-up contacts allow callers to ask questions, clarify instructions, and receive reassurance about their care plans. Scheduled follow-up calls are particularly valuable for individuals managing chronic conditions or complex symptoms, as these patients often benefit from more frequent communication to feel adequately supported and understood (Jernigan et al., 2020; Sandelius & Wahlberg, 2020). By extending communication beyond the initial triage interaction, nurses foster trust, enhance caller adherence to care recommendations, and significantly increase caller satisfaction. Therefore, nurses should consistently integrate structured follow-up protocols into telephone triage systems to address callers' emotional and clinical needs, promoting continuity, reducing distress, and enhancing the quality of care.

Developing communication competencies in emotional intelligence, active listening, and de-escalation equips nurses to manage emotionally complex triage calls with increased clarity and confidence. Structured training focused on interpreting emotional cues and adapting communication styles enables nurses to respond effectively to callers experiencing distress. Recognizing signs of fear, frustration, or confusion empowers nurses to provide reassurance, demonstrate empathy, or pause to allow callers space to speak uninterrupted, all of which build trust and prevent communication breakdowns (Johnson et al., 2015; Neuman, 2024). Integrating emotional responsiveness

into nurse training improves caller experiences, facilitates more accurate symptom assessments, and contributes positively to clinical outcomes and caller safety.

Workflow demands and protocol-driven systems often constrain effective communication between nurses and callers in telephone triage settings. Rigid digital triage tools and strict performance expectations compel nurses to prioritize the rapid completion of structured assessments over fostering rapport or inviting caller participation (Murdoch et al., 2014; Spek et al., 2022). When nurses emphasize speed and data collection, they risk overlooking essential emotional cues or prematurely ending open-ended conversations that could strengthen trust and encourage collaborative dialogue (Spek et al., 2023). Operational pressures thus limit nurses' opportunities to create caller-centered interactions, which can diminish communication quality, particularly during emotionally sensitive or clinically complex situations. To mitigate these challenges, health care organizations must strike a balance between structured protocols, communication training, and workflow flexibility, allowing nurses sufficient time and resources to effectively address both the emotional and clinical aspects of telephone triage.

The lack of visual information during telephone triage significantly limits nurses' ability to accurately assess physical and emotional cues, which are essential for clinical evaluation. Nurses conducting telephone assessments rely solely on auditory indicators, such as vocal tone, speech pace, and verbal clarity, to determine symptom severity without the benefit of visual cues, including facial expressions, body posture, or pallor (Kaminsky et al., 2020; Rothwell et al., 2012). Accurately interpreting subtle vocal

changes demands clinical experience and heightened attention, especially when callers present ambiguous symptoms or respiratory distress. In contexts such as poison information calls, the absence of observable nonverbal behavior further complicates judgments about caller urgency and understanding (Rothwell et al., 2012). Additionally, text-based triage platforms eliminate auditory signals, complicating nurses' real-time efforts to detect emotional distress or assess symptom severity (Rydell et al., 2025). Nurses can effectively compensate for missing visual and auditory input by employing structured questioning techniques, active listening, and intentional verbal strategies during telephone-based assessments.

Telephone triage nurses evaluate callers' conditions by carefully interpreting paralanguage, including breath sounds, vocal intensity, speech hesitations, and rhythmic changes in speech patterns, to construct a comprehensive mental picture of the clinical situation (Wouters et al., 2020b). The reliability and accuracy of this interpretive process depend significantly on nurses' clinical experience and listening proficiency. Inexperienced or fatigued nurses may overlook subtle vocal cues, potentially underestimating or misinterpreting symptom severity. Callers who are distressed, disoriented, or minimally responsive further complicate clinical assessment by providing unclear or incomplete information, increasing nurses’ diagnostic uncertainty. Such unclear communication diminishes nurses' confidence in triage decisions and compromises the safety and quality of caller care (Rysst Gustafsson & Eriksson, 2021; Yliluoma & Palonen, 2020). Thus, providing ongoing training focused on auditory

assessment skills and fostering workplace environments that minimize fatigue can enhance nurses' ability to perform precise, safe triage assessments.

Digital triage tools, such as the NTS, are intended to increase efficiency and standardize telephone assessments in primary care settings. However, the rigid algorithms embedded in these systems frequently restrict natural conversational flow, reducing nurses' ability to address callers' concerns comprehensively. The linear, symptom-focused structure of the NTS often prioritizes categorizing symptoms while neglecting contextual and emotional information callers provide during interactions (Spek et al., 2023). In acute, high-stress situations, such as severe shortness of breath, callers may struggle to articulate their symptoms clearly, and nurses may become cognitively overloaded while simultaneously following rigid system prompts and managing clinical risks (Spek et al., 2022). Sole reliance on inflexible, task-based algorithms in these scenarios compromises communication quality and can negatively affect the accuracy and safety of triage decisions. Integrating greater conversational flexibility into digital triage protocols would enhance nurses' capacity to manage complex calls and improve the quality of care for callers.

Conflicts between clinical decision-support outputs and nurses' professional judgments commonly arise during telephone triage encounters. Digital triage systems, including the NTS, occasionally generate urgency levels that conflict with nurses' clinical assessments of caller situations. Nurses frequently respond to such discrepancies by manually adjusting symptom entries or overriding system-generated recommendations to align outcomes with clinical realities better (Wouters et al., 2020b). These manual

modifications indicate the limitations of current digital tools in capturing nuanced or atypical symptom presentations. Although nurses implement these adjustments to enhance caller safety, they introduce variability and reduce the standardization intended by the triage system (Spek et al., 2023; Wouters et al., 2020b). Improving the flexibility and responsiveness of triage software to accommodate contextual variations and clinical judgment may reduce the need for manual workarounds, supporting more consistent, accurate, and effective triage outcomes.

Structured triage models that rely heavily on standardized protocols limit opportunities for personalized communication during telephone assessments. Nurse-led triage typically emphasizes symptom verification and checklist completion, reducing nurses' time to thoroughly explore callers' concerns, emotional context, or expectations (Murdoch et al., 2014). Conversely, general practitioner-led triage typically involves more comprehensive questioning, enabling a broader scope of relational engagement. Clinicians providing services such as the National Health Service 111 have expressed concerns about protocol-driven systems, noting that restrictive, standardized questioning formats make it difficult to capture the nuanced aspects of callers' narratives (MacLellan et al., 2023). Therefore, reducing reliance on rigid scripts and integrating greater conversational flexibility into triage processes can substantially improve communication quality, supporting the delivery of more personalized, caller-centered care.

Proactive, structured communication practices are essential to improving telephone triage outcomes. Consistent, timely follow-up calls help reduce caller uncertainty, reinforce crucial information, and provide ongoing support. In oncology

settings, nurse-led triage models incorporating scheduled monitoring and real-time symptom tracking significantly improved symptom management and responsiveness for callers undergoing active treatment (Jernigan et al., 2020; Leyva et al., 2023). Similarly, structured follow-up callbacks enhance communication with caregivers; pediatric triage nurses conducting scheduled calls notably improved parental confidence and increased trust in clinical advice (Sandelius & Wahlberg, 2020). Incorporating systematic follow-up procedures into triage workflows thus strengthens caller satisfaction, fosters trust, and sustains continuous, caller-centered care.

Many telephone triage interactions fail to engage callers as active participants in their care planning. Although nurses frequently provide emotional support and empathetic listening, they often make clinical decisions without sufficiently involving callers or their caregivers (Mattisson et al., 2023). Limiting opportunities for shared decision-making reduces callers' sense of participation and contributes to feelings of exclusion and disempowerment. Nurses who fail to encourage active caller involvement diminish the quality of the nurse–caller relationship, thereby lowering caller satisfaction with the interaction (Rysst Gustafsson & Eriksson, 2021). Integrating collaborative dialogue into triage communication enhances the therapeutic alliance, promoting greater trust and improved adherence to care recommendations.

Communication breakdowns during telephone triage significantly increase the risk of clinical errors and negatively affect caller satisfaction (Graversen et al., 2020b; Holmström et al., 2022). Triage nurses who primarily use closed-ended questions, interrupt callers, or fail to confirm the caller's understanding risk missing essential details

required for accurate clinical assessments (Rysst Gustafsson & Eriksson, 2021). Limiting caller input restricts comprehensive symptom exploration and diminishes opportunities to identify underlying patient concerns. By utilizing open-ended, exploratory questions, nurses encourage callers to elaborate on their symptoms, leading to more thorough and accurate clinical evaluations (Gustafsson & Wahlberg, 2023; Murdoch et al., 2014). Regularly verifying caller comprehension throughout the call promotes clinical accuracy and supports collaborative, caller-centered communication (Johnson et al., 2015; Mattisson et al., 2023). Therefore, prioritizing interactive and reflective communication strategies in telephone triage practice improves clinical outcomes and enhances caller satisfaction.

Nurses employ targeted communication techniques to overcome the limitations inherent in telephone triage assessments. Without visual observation, structured and simplified questioning enables nurses to effectively guide callers in symptom evaluation, capturing critical clinical information through verbal interactions alone (Gustafsson & Wahlberg, 2023; Lopriore et al., 2019; Wouters et al., 2020a). Guided prompts help nurses clarify essential details, including symptom severity, timing, and context, allowing them to maintain conversational control while accurately assessing caller conditions. Simulation-based training further strengthens nurses' ability to apply structured communication methods effectively under time pressure and emotional stress (Ciccolini et al., 2022; Ehly & Fitzwater, 2021). For instance, nurse practitioner students participating in telephone triage simulations demonstrated improved communication clarity, enhanced symptom exploration, and increased caller engagement in nonvisual,

urgent care scenarios (Neuman, 2024). Integrating simulation experiences and structured questioning into nurse training programs ensures that nurses can confidently perform accurate, caller-centered remote assessments.

Reflective tools significantly contribute to the development of practical communication skills among telephone triage nurses. Structured self-assessment instruments enable nurses to evaluate their interpersonal communication behaviors, identify listening deficiencies, and pinpoint areas requiring improvement in caller engagement (Johnson et al., 2015). Routine reflective practice enhances nurses' self-awareness of verbal habits, vocal tone, and emotional responsiveness, fostering more transparent and more empathetic interactions. Increased self-awareness derived from structured reflection supports more accurate symptom assessments and better aligns triage decisions with callers' clinical and emotional needs. Incorporating reflective tools into continuous nurse training strengthens communication competencies, ultimately enhancing caller safety and improving the quality of telephone-based clinical care.

Health systems often monitor efficiency through rigorous performance tracking, audits, and stringent time metrics, which pressure nurses to complete telephone triage calls quickly. Consequently, nurses may interrupt callers, rely primarily on closed-ended questions, or fail to explore concerns not explicitly addressed by standardized triage algorithms, thereby significantly reducing opportunities for personalized, caller-centered dialogue (Spek et al., 2023). In tightly regulated triage settings, such communication constraints limit nurses' ability to detect critical emotional cues or clarify ambiguous caller information. Institutional priorities that emphasize speed over thoroughness can

weaken caller comprehension and undermine nurses' trust in call centers. Therefore, reducing administrative pressures and providing flexibility in triage call structures can substantially improve communication quality, enhance caller understanding, and foster more vigorous, effective therapeutic relationships.

Nurses' clear communication and deliberate clinical reasoning during telephone triage significantly reduce unnecessary ambulance dispatches and optimize resource utilization (Roivainen et al., 2020; Thierrin et al., 2021). Nurses enhance assessment accuracy by employing structured questioning methods, consistently verifying symptom details, and clarifying caller expectations throughout the interaction (Murdoch et al., 2014; Wouters et al., 2020a). This clarity necessitates sufficient time per call and specialized training in telephone-based assessment and effective communication techniques (Ciccolini et al., 2022; Gustafsson & Wahlberg, 2023). However, high-volume triage environments often impose restrictive time constraints, limiting nurses' opportunities for ongoing development of communication skills and negatively affecting their ability to perform comprehensive assessments (Kaminsky et al., 2020). Ensuring adequate call duration and continuous communication training supports safe clinical decisions, enhances the accuracy of triage outcomes, and promotes efficient and appropriate use of emergency health care resources (Gustafsson & Wahlberg, 2023; Stacey et al., 2021).

Nurse–Caller Interaction Barriers

Effective nurse–caller interactions during telephone triage extend beyond exchanging clinical information to include essential relational and interpersonal

components that influence caller outcomes (Eriksson et al., 2020; Fotland et al., 2024). Nurse presence is central to the nurse–caller dynamic in telephone settings, which refers to nurses' ability to demonstrate attentiveness and empathy without visual cues (Eriksson et al., 2020). Maintaining nurse presence through phone-based communication requires advanced interpersonal skills, including active listening, empathetic acknowledgment, and reassuring dialogue. These skills help callers feel genuinely valued, understood, and emotionally supported, even in the absence of physical proximity and visual contact (Eriksson et al., 2020; Fotland et al., 2024). Therefore, developing interpersonal competencies through targeted training can enable nurses to foster stronger relationships and deliver high-quality, caller-centered care remotely.

Nurses' clinical confidence and ability to build trust significantly influence interactions during telephone triage (De Leo et al., 2024; Eriksson et al., 2020). Callers are more likely to trust and follow triage recommendations when nurses project confidence and demonstrate clinical expertise during assessments (De Leo et al., 2024). Conversely, when nurses exhibit uncertainty or hesitation, particularly during complex symptom evaluations or urgent clinical scenarios, caller anxiety may be heightened, patient confidence may be undermined, and adherence to recommended care plans may be diminished (Eriksson et al., 2020). Consequently, structured training to enhance clinical confidence and communication practices that reinforce professional competence is essential for maintaining caller trust, improving adherence to advice, and promoting safe and effective triage outcomes.

Interpersonal rapport significantly influences outcomes in telephone triage interactions (Fotland et al., 2024). Establishing rapport during a call enhances communication, facilitates more explicit symptom descriptions, and leads to higher caller satisfaction (Fotland et al., 2024). Nurses can build rapport by addressing callers by name, promptly acknowledging and validating callers' concerns, and explicitly summarizing key points from the interaction. These strategies enhance clarity and demonstrate genuine empathy, fostering a therapeutic connection even within brief encounters (Hafermalz & Riemer, 2020). Therefore, training programs that focus on rapid rapport-building skills can equip nurses to provide empathetic, person-centered care, thereby improving clinical accuracy and caller satisfaction.

Caller participation and empowerment are critical to effective telephone triage. When nurses actively involve callers in decision-making processes, clearly communicate available care options, verify caller understanding, and encourage open questions, callers experience increased satisfaction and empowerment (Gustafsson & Wahlberg, 2023; Mattisson et al., 2023). Enhanced caller empowerment has been associated with improved adherence to recommended care plans (Purc-Stephenson & Thrasher, 2012; Stacey et al., 2021). Additionally, empowering telephone interactions supports callers in developing autonomy and confidence to manage their health concerns independently following the call, further strengthening caller-centered care and enhancing self-efficacy (Davis et al., 2022; Graversen et al., 2020a; Leyva et al., 2023). Thus, prioritizing empowerment strategies within nurse training programs can foster greater caller autonomy, adherence, and satisfaction with telephone-based clinical care.

Telephone triage encounters involving anxious or distressed callers present distinct communication challenges that require nuanced handling. Nurses skilled in recognizing emotional cues and applying calming communication strategies, such as appropriately pacing speech, reassuring language, and employing reflective statements, can reduce caller anxiety (Eriksson et al., 2020; Fotland et al., 2024). Employing these targeted techniques supports more accurate clinical assessments and may reduce emotional strain for both callers and nurses. Training focused on emotional recognition and empathetic communication supports clinical judgment and enhances caller-centered interactions in high-stress telephone environments.

Interactions involving third-party callers, such as parents, family members, or caregivers, can complicate nurse–caller communication during telephone triage. These situations require careful management, as nurses must accurately interpret second-hand symptom reports while simultaneously evaluating the caller's urgency and emotional state. Nurses who use clear, structured questioning techniques and demonstrate sensitivity to the caller’s emotional context can make precise clinical decisions while maintaining empathetic support (Eriksson et al., 2020). Thus, targeted education that emphasizes structured inquiry and emotional sensitivity can help nurses navigate third-party communications effectively, improve clinical accuracy, maintain trust with callers, and ensure empathetic, supportive interactions.

Professional support and ongoing training significantly enhance nurses’ effectiveness in managing complex telephone triage interactions. Regular reflective practice, structured team discussions, and peer support programs reinforce confidence

and resilience, improving communication and overall triage outcomes. Educational interventions targeting clinical judgment and interpersonal communication have been shown to enhance interaction quality and assessment accuracy (Ciccolini et al., 2022). Therefore, health care organizations should prioritize continuous professional development, reflection, and peer collaboration to support high-quality, caller-centered telephone triage care (Lalwani et al., 2023).

The interaction between nurses and callers forms the core of successful telephone triage (Mattisson et al., 2023; Rysst Gustafsson & Eriksson, 2021; Yliluoma & Palonen, 2020). Due to the absence of physical presence, the effectiveness of triage interactions relies entirely on verbal communication, emphasizing tone, pacing, and clarity of language (Lopriore et al., 2019; Yliluoma & Palonen, 2020). Effective communication shapes symptom interpretation, directly influences caller trust, determines satisfaction with the interaction, and affects callers' adherence to clinical recommendations (Mattisson et al., 2023; Sandelius & Wahlberg, 2020; Stacey et al., 2021). Structural and interpersonal factors, including organizational constraints, rigid triage protocols, and nurse discretion, collectively influence the success of nurse–caller connections during triage calls (MacLellan et al., 2023; Murdoch et al., 2014; Spek et al., 2023; Wouters et al., 2020b). Consequently, health care systems should balance structured protocols with flexibility, allowing nurses sufficient discretion to tailor their communication to individual callers' needs, thereby enhancing the effectiveness of telephone-based clinical interactions.

Establishing a strong nurse–caller connection enhances the quality of telephone-based care (Mattisson et al., 2023; Rysst Gustafsson & Eriksson, 2021; Yliluoma & Palonen, 2020). Callers who feel heard, understood, and respected tend to engage more openly in discussions and follow clinical advice more consistently (Mattisson et al., 2023; Sandelius & Wahlberg, 2020; Stacey et al., 2021). Nurses effectively foster this connection by maintaining a calm vocal tone, utilizing open-ended questions, and allowing callers ample opportunity to express themselves without interruption (Johnson et al., 2015; Rysst Gustafsson & Eriksson, 2021; Yliluoma & Palonen, 2020). Additionally, welcoming introductions, addressing callers by name, and incorporating brief expressions of empathy create an atmosphere of reassurance and emotional safety (Mattisson et al., 2023; Yliluoma & Palonen, 2020). Therefore, nurse training programs should emphasize relational communication skills to support caller trust, satisfaction, and active participation.

Callers report increased satisfaction and greater confidence in their care when nurses actively listen and allocate sufficient time for callers to describe symptoms and concerns in their own terms (Mattisson et al., 2023). Caller-centered communication approaches help build trust, encourage openness, and facilitate more accurate symptom assessments. Conversely, interactions characterized by premature interruptions, heavy reliance on closed-ended questions, or rushed, monotone speech leave callers feeling ignored or undervalued (Rysst Gustafsson & Eriksson, 2021). Such restrictive communication styles discourage callers from fully participating, potentially leading to incomplete symptom reporting and reduced adherence to clinical recommendations.

Prioritizing dialogue, active listening, and empathetic vocal expressions thus constitute essential components of high-quality telephone triage care, ensuring comprehensive clinical assessments and positive callers' experiences.

Positive nurse–caller interactions during telephone triage include focused attention on the caller's emotional needs (Mattisson et al., 2023; Yliluoma & Palonen, 2020). Callers frequently seek emotional support, reassurance, and medical guidance, particularly when facing uncertainty or distressing circumstances (Sandelius & Wahlberg, 2020; Westin et al., 2024). Nurses who explicitly acknowledge and validate callers' anxiety or fear facilitate a more collaborative and trusting communication dynamic (Mattisson et al., 2023; Rysst Gustafsson & Eriksson, 2021). Training nurses to recognize emotional cues and address emotional concerns enhances caller engagement, promotes therapeutic communication, and fosters more assertive and trusting relationships between nurses and callers.

Despite nurses' efforts to establish meaningful interactions, structural constraints inherent in telephone triage processes often impede effective communication (MacLellan et al., 2023; Murdoch et al., 2014). Digital triage systems, including the NTS, mandate that nurses strictly adhere to predefined question sequences, significantly limiting conversational flexibility and reducing opportunities for open-ended dialogue (Michel et al., 2024; Spek et al., 2022). Under pressure to comply with system requirements, nurses may interrupt callers' narratives, disrupting rapport and potentially compromising assessment accuracy (Spek et al., 2023; Wouters et al., 2020b). Health care systems must balance structured assessment protocols with flexible communication strategies,

empowering nurses to engage callers more naturally, preserve rapport, and ensure comprehensive, accurate clinical evaluations.

Nurse-led triage systems, which rely on digital decision-support tools, often prioritize structured symptom documentation over holistic communication with callers (Murdoch et al., 2014; Spek et al., 2023). Decision-support systems typically follow rigid, symptom-driven protocols, limiting nurses' opportunities to explore caller expectations, emotional concerns, and contextual factors relevant to caller care (MacLellan et al., 2023; Spek et al., 2023). Narrowly focusing on symptom checklists can lead nurses to overlook essential psychosocial cues and reduce caller engagement, particularly when organizational priorities emphasize adherence to digital protocols rather than relational communication skills (Rysst Gustafsson & Eriksson, 2021; Wouters et al., 2020b). Nurses who fail to address caller concerns adequately weaken rapport, reduce caller satisfaction, and undermine trust, potentially decreasing adherence to clinical recommendations (Mattisson et al., 2023; Stacey et al., 2021). Therefore, telephone triage models should incorporate flexible communication strategies that enable nurses to balance thorough clinical assessments with meaningful engagement with callers, thereby ensuring comprehensive and caller-centered care (Johnson et al., 2015; Murdoch et al., 2014).

Nurses often manage the limitations inherent in digital triage systems by adjusting their approach to using them (Spek et al., 2023; Wouters et al., 2020b). Nurses might rephrase system-generated questions into a more conversational style or rearrange topics to better align with the natural flow of the conversation (Johnson et al., 2015; Murdoch et

al., 2014). Additionally, nurses frequently override or modify system-generated recommendations when they do not align with their clinical judgment, thereby ensuring appropriate care outcomes for callers (Michel et al., 2024; Wouters et al., 2020b). Such adaptations support clinical accuracy and strengthen nurse–patient relationships yet simultaneously highlight ongoing tensions between standardized protocols and the necessity for person-centered, relational communication in telephone triage practice (Murdoch et al., 2014; Rysst Gustafsson & Eriksson, 2021). Recognizing and addressing these tensions through improved system flexibility and targeted communication training can help nurses deliver safer, more empathetic, and caller-focused care.

The quality of nurse–caller interactions during telephone triage significantly depends on callers' communication styles, emotional states, and expectations (Westin et al., 2024; Yliluoma & Palonen, 2020). Callers who communicate effectively, remain calm, and demonstrate cooperation facilitate smoother, more efficient clinical interactions, enabling nurses to gather essential information with fewer obstacles (Mattisson et al., 2023; Yliluoma & Palonen, 2020). Conversely, callers experiencing distress, anger, or confusion disrupt communication, thereby complicating nurses' ability to assess symptoms and provide effective responses accurately (Spek et al., 2022; Yliluoma & Palonen, 2020). Therefore, triage nurses must develop skills to recognize and adapt to callers' various emotional states and communication patterns to maintain clinical accuracy and establish effective rapport during interactions.

Callers' diverse communication styles influence the flow and effectiveness of telephone triage interactions. Some callers dominate conversations, provide tangential

information, or present lengthy narratives, hindering nurses' ability to follow a structured questioning approach, which is essential for accurate assessment (Murdoch et al., 2014; Yliluoma & Palonen, 2020). Others may hesitate or withhold important information due to embarrassment, fear, or uncertainty regarding symptoms, especially during emotionally sensitive or unfamiliar situations (Rysst Gustafsson & Eriksson, 2021; Westin et al., 2024). Nurses must carefully balance clinical efficiency with interpersonal sensitivity in these scenarios. Employing skilled communication techniques, such as gently redirecting the conversation, validating callers' emotional concerns, and maintaining a calm, nonjudgmental tone, allows nurses to guide interactions effectively without appearing dismissive or rushed (Johnson et al., 2015; Yliluoma & Palonen, 2020). Maintaining this careful balance supports accurate symptom assessment, strengthens patient trust, and enhances the quality of communication and patient-centered care in telephone triage settings.

Age, health literacy, and prior health care experiences significantly influence the quality and clarity of communication during telephone triage interactions. Callers' capacity to accurately describe symptoms and adhere to instructions frequently varies according to these personal characteristics. Older adults, for example, often require additional time to process verbal information and may experience hearing loss or memory impairments, which can complicate clear dialogue (Rysst Gustafsson & Eriksson, 2021; Yliluoma & Palonen, 2020). Similarly, callers with limited health literacy may struggle to comprehend medical terminology or respond effectively to structured questioning, thereby increasing the risk of miscommunication (Johnson et al., 2015). Parents or

caregivers contacting triage services on behalf of young children typically report elevated stress and emotional concerns, influencing symptom descriptions and responses to clinical guidance (Westin et al., 2024). Recognizing and addressing these individual differences enables nurses to adjust communication strategies, ensuring accurate assessments and supportive, empathetic interactions.

Telephone triage calls involving family members or multiple speakers introduce additional complexities, disrupting clear communication and complicating clinical assessments. Nurses frequently encounter conflicting symptom descriptions, distracting background noise, or confusion about who provides information versus who requires care (Yliluoma & Palonen, 2020). Unclear roles or simultaneous speaking among family members demand increased effort from nurses to maintain call structure and obtain accurate clinical details (Westin et al., 2024). Effectively managing these interactions requires strong communication skills, emotional control, and professional confidence. Nurses must balance assertively guiding the conversation flow with demonstrating patience and respect toward all involved parties (Rysst Gustafsson & Eriksson, 2021). Employing structured yet adaptable communication approaches enables nurses to navigate these complex interactions successfully, maintaining the quality and accuracy of care provided through telephone triage.

Strong communication skills enable nurses to navigate the complexities of telephone triage interactions effectively. Clear, adaptable, and empathetic communication promotes accurate clinical assessments and supports a patient-centered triage approach. Nurses who consistently listen attentively, ask purposeful and structured questions, and

adapt their tone and language to match the caller's emotional state, comprehension level, and communication style successfully establish trust and gather essential clinical information (Johnson et al., 2015; Mattisson et al., 2023). Additionally, proficient time management is critical for effective telephone triage. Nurses must carefully balance the need for comprehensive assessments with the efficient use of time, particularly when facing high call volumes or adhering to structured digital protocols (Murdoch et al., 2014; Spek et al., 2023). Maintaining a careful balance between thoroughness and efficiency enhances caller confidence, minimizes misunderstandings, and significantly improves the overall quality of the triage experience.

Targeted training in communication methods, including active listening, structured questioning, empathy, and de-escalation, significantly enhances nurse–caller interactions during telephone triage. Reflective self-assessment tools enable nurses to identify and develop their interpersonal competencies, highlighting areas for improvement (Johnson et al., 2015). Furthermore, advanced nursing education programs frequently incorporate simulation-based triage scenarios, providing nurses with opportunities to practice managing high-pressure, nonvisual clinical encounters while receiving structured feedback from peers and instructors (Neuman, 2024). Combining simulation exercises, reflective practices, and peer evaluations enables nurses to refine their vocal tone adjustments, emotional regulation strategies, and clinically relevant questioning skills. Integrating these training elements into ongoing professional development enhances communication competencies, leading to more accurate, empathetic, and client-focused triage outcomes (Johnson et al., 2015; Neuman, 2024).

Supportive workplace conditions directly affect the quality of nurse–caller communication in telephone triage settings. Nurses with regular breaks, manageable call volumes, and collaborative team environments demonstrate enhanced focus, emotional control, and responsiveness throughout their shifts (Rysst Gustafsson & Eriksson, 2021; Skogevall et al., 2020; Yliluoma & Palonen, 2020). Conversely, work environments lacking sufficient rest periods or adequate staffing levels contribute to mental fatigue and emotional strain, diminishing nurses' listening capacities and increasing the likelihood of communication breakdowns. Elevated stress can prompt nurses to rush interactions, overlook crucial patient cues, or adopt overly mechanical communication styles, compromising caller-centered care. Prioritizing supportive scheduling practices, peer consultations, and structured opportunities for decompression during shifts ensures triage nurses consistently provide safe, accurate, and empathetic care under demanding conditions.

Summary and Conclusions

The literature reveals four themes surrounding communication challenges in telephone triage: (a) communication barriers due to the absence of visual cues and reliance on rigid triage protocols; (b) cultural, gender, and language differences that complicate the interpretation of symptoms and callers' needs; (c) emotional stress experienced by both nurses and callers that affects assessment accuracy; and (d) nurse–caller interaction barriers that limit rapport, trust, and shared decision-making in telephone triage settings, with these challenges intensifying when nurses interact with caregivers or other third-party callers rather than communicating directly with the caller.

Researchers have established the critical role of telephone triage in improving health care access and efficiency, with the use of structured protocols enhancing safety and standardization. However, most studies focus on caller satisfaction and system outcomes, while the lived experiences of nurses managing complex, real-time communication in emotionally and culturally sensitive contexts remain underexamined. Few studies have applied nursing-specific frameworks, such as Peplau's theory of interpersonal relations or interpretive description, to explore these interactions in depth.

Interpretive description is well-suited as the ideal methodology for this study. Explicitly designed for applied health research, it enables a deep exploration of complex clinical experiences while generating meaningful and practical findings. This approach aligns with the study's goals and Peplau's theoretical emphasis on relational nursing care. Through interpretive description, the practice-informed insights were generated that can inform communication training, clinical guidelines, and policy development. Chapter 3 outlines the qualitative methodology and explains how interpretive description is used to examine how nurses adapt and respond to the evolving demands of telephone triage assessment.

Given these gaps and the relevance of Peplau’s theoretical lens, Chapter 3 presents a qualitative research design that utilizes interpretive description to explore these experiences. This design enables an in-depth analysis of nurses' perspectives and communication strategies. Together, this methodological approach supports findings that both describe existing challenges and inform practical improvements in training, policy, and clinical practice.

Chapter 3: Research Method

The purpose of this qualitative study, which employed an interpretive description approach, was to explore RNs' experiences navigating communication challenges during telephone triage encounters. The study examined how nurses managed interpersonal interactions with callers and caregivers in remote settings, particularly in the absence of visual cues, and how they responded to barriers related to language, culture, gender, and emotion. Peplau's theory of interpersonal relations informed the study and provided a framework for analyzing the relational roles nurses assumed during telehealth interactions.

Chapter 3 presents the research design and rationale, the role of the researcher, the qualitative methodology, participant selection procedures, instrumentation, data collection processes, analytic methods, and the strategies used to ensure trustworthiness. The chapter concludes with a discussion of the ethical considerations that guided the study.

Research Design and Rationale

The first RQ of this qualitative study was, what were nurses' experiences navigating communication barriers related to gender, language, cultural differences, emotional dynamics, and nurse–patient interactions during telephone triage encounters? The second RQ supported the primary inquiry and asked, how did nurses adapt communication strategies to address communication barriers, emotional stress, and nurse–patient interactions during telephone triage? These open-ended questions guided

the exploration of nurses' lived experiences and generated in-depth insights into the complexity of communication in remote clinical settings.

A qualitative interpretive description approach was used to examine the communication challenges RNs faced during telephone triage. Interpretive description supported exploration of clinical phenomena in natural practice settings and supported the development of practical insights relevant to nursing care (Thorne, 2016). The methodological orientation emphasized discovery and contextual understanding rather than hypothesis testing, providing the flexibility needed to identify themes and patterns emerging from nurses' accounts of emotionally charged, linguistically diverse, or culturally nuanced triage encounters.

This study focused on understanding how nurses experienced and addressed complex communication challenges in the absence of visual cues. Using an interpretive description approach, nurses' perceptions of the barriers encountered during remote assessments and the strategies used to ensure practical, empathetic, and clinically sound communication were analyzed. By capturing participants' experiences in their own words, I developed a meaningful representation of the challenges and solutions embedded in routine telephone triage practice.

I did not select a quantitative design because the study did not aim to measure predefined variables or establish causal relationships. Instead, the goal was to understand subjective meanings, behaviors, and perceptions within a naturalistic setting, an orientation more closely aligned with qualitative methodologies that emphasize contextual understanding and meaning making (Curtis & Keeler, 2022). Phenomenology

was also considered but found unsuitable for the study's applied focus. Phenomenological approaches seek to uncover the essence of lived experiences through bracketing and abstraction; however, this orientation did not align to generate practical, context-sensitive knowledge for clinical practice (Daruhadi, 2024; Watson, 2024). In contrast, interpretive description provides a flexible, practice-oriented methodology that allows the development of clinically applicable insights while maintaining reflexivity and attention to participants' perspectives (Ocean et al., 2022). This approach emphasizes the construction of knowledge and supports a nuanced understanding directly relevant to nursing contexts such as telephone triage (Elliott & Timulak, 2021).

Role of the Researcher

As a nurse and doctoral candidate conducting an interpretive description study of RNs' experiences in telephone triage, I served as the primary data collector and analyst. In qualitative inquiry, I played a central role in shaping data collection and interpretation, particularly when positioned as an insider who shares professional experiences with participants (Ahmed, 2024). I worked in the same field as the participants but did not hold supervisory authority, which reduced potential power imbalances that could inhibit voluntary participation or honest disclosure (Ferris-Day et al., 2024). This collegial relationship had the potential to enhance rapport and support the development of contextually rich insights; however, it also required heightened awareness of how proximity to the clinical environment might influence interpretation (Ora et al., 2025). Insider status presents both opportunities and ethical considerations, and researchers must continually examine their positionality to maintain analytic neutrality and research

integrity (Ademolu, 2024; Berger, 2015). To support this effort, I engaged in critical reflexivity through journaling, documented analytic decisions transparently, and incorporated peer debriefing to strengthen credibility and ensure methodological rigor (Ahmed, 2024; Bradshaw et al., 2017).

Qualitative inquiry emphasizes social interaction and the establishment of trust-based relationships between me and the participants, which are essential for generating rich and authentic data (Liamputtong & Rice, 2021; Lim, 2024). Consistent with this principle, the data collection approach prioritized empathy, active listening, and intentional distancing to minimize my influence and preserve the integrity of participants' narratives (Kocyba et al., 2022). One-on-one, semistructured interviews allowed participants to describe their thoughts, emotions, and interpretations in their own words rather than being limited by the structured response formats typical of quantitative tools (Creswell & Poth, 2023; Rubin & Rubin, 2011). Throughout the interviews, space was deliberately created for participants to guide the conversation, ensuring that their lived experiences, rather than my assumptions, shaped the data (Head et al., 2021; Tanwir et al., 2021).

Because qualitative research is inherently subjective, I used reflexive practices to monitor my assumptions and responses. I maintained a reflexive journal to document personal thoughts, preconceptions, and emotional reactions that emerged during the study (Tomlinson & Medlinskiene, 2024). This practice supported the identification and bracketing of biases, ensuring that interpretations remained grounded in participant data rather than influenced by my professional experience in telephone triage (Banerjee &

Dasgupta, 2024). I documented analytical decisions in field notes and used peer debriefing to enhance credibility and confirm the consistency of emerging themes.

All participation in the study was voluntary and was guided by the ethical principles of autonomy and informed consent (Eeckhout et al., 2023). The research was not funded by external entities, thereby eliminating potential conflicts of interest and aligning with recommended practices for maintaining the integrity of scholarly inquiry (Potthoff et al., 2023). I supported ethical rigor through a transparent, nonjudgmental, and nondirective stance that fostered trustworthiness in data collection and interpretation (Ahmed, 2024). By maintaining an open posture and engaging in ongoing reflexivity, I ensured that participants' perspectives guided the research process rather than allowing prior professional experiences or assumptions to influence the findings (Dyar, 2022; Steltenpohl et al., 2023). These efforts strengthened the study's credibility and contributed to the generation of knowledge relevant to nursing practice in telephone triage.

Methodology

I used an interpretive description approach to explore how RNs experienced and managed communication challenges during telephone triage. This methodology, rooted in applied qualitative inquiry, is well-suited for nursing and other practice-based disciplines because it supports the development of clinically relevant insights derived from experiential knowledge (Thorne, 2016). Phenomenology was considered a possible methodological approach, but I deemed it unsuitable for the study's aims. Phenomenology seeks to uncover the universal essence of lived experiences by

bracketing the researcher's preconceptions and centering participants' descriptions of a phenomenon as it appears to them (Creswell & Poth, 2023). This orientation did not align with the study's focus, which was not to distill a singular, essential meaning of the telephone triage experience. Instead, the study examined nurses' contextual and practice-based strategies within real-world settings. Interpretive description provided a more appropriate fit by offering theoretical flexibility and emphasizing the development of actionable knowledge relevant to nursing practice.

Participant Selection Logic

To recruit eligible participants, I disseminated a digital flyer (see Appendix A) through professional social media platforms, including Facebook, LinkedIn, X (formerly Twitter), and Instagram, as well as nursing-specific online forums and professional networks. I also utilized the Walden University Participant Pool to enhance outreach efforts. Digital recruitment has become a widely accepted strategy for qualitative studies involving health care professionals, as it facilitates efficient access to specific target populations (Green et al., 2021).

The flyer directed interested individuals to email me to express interest in the study. I provided a brief prescreening form to verify eligibility based on three inclusion criteria: (a) current RN licensure, (b) at least 1 year of experience in telephone triage, and (c) active practice in the role within the past 6 months. Before scheduling interviews, I administered a brief screening questionnaire (see Appendix B) to confirm eligibility. This prescreening process enhanced methodological rigor by ensuring that each participant meets the inclusion criteria, thereby supporting the credibility and relevance of the study's

findings (Wu et al., 2022). Moreover, initiating direct communication enables transparent disclosure of study aims and supports ethical engagement, consistent with best practices in qualitative research (Eeckhout et al., 2023).

The study population included licensed RNs who were currently practicing or had practiced within the past 6 months in a telephone triage setting. I used purposive sampling to select participants who could offer rich, practice-informed perspectives on communication challenges within this specialized nursing role (Thorne, 2016). To be eligible, participants were required to (a) have at least 1 year of experience in telephone triage, (b) be currently practicing or have practiced in this setting within the past 6 months, and (c) consent to participate in a one-on-one, semistructured interview lasting 45 to 60 min. These criteria ensured the inclusion of nurses with sufficient clinical experience and contextual knowledge to provide meaningful insights into the communication demands of telephone triage nursing, a role characterized by rapid clinical decision-making and skillful verbal interaction in the absence of visual cues (Anderson et al., 2024; Torlén Wennlund et al., 2022).

Telephone triage requires complex clinical reasoning and nuanced communication skills, making experience in this setting essential for informed contributions (Mattisson et al., 2023; Spek et al., 2023). Limiting participation to those currently or recently engaged in telephone triage ensured that the data reflected current practices and system-level influences, including updated protocols and telehealth adaptations in the post–COVID-19 landscape (Fotland et al., 2024; Plocienniczak et al., 2022). Restricting interviews to a 45- to 60-min time frame aligned with qualitative research practices by balancing depth

of inquiry with participant well-being and engagement (Wechsler et al., 2022). Applying these eligibility standards supported methodological rigor by ensuring a sample well aligned with the study's purpose. To determine the number of participants, I used an interpretive-descriptive methodology, which supports small, focused samples of 5-10 participants, especially when the study population is homogeneous. The purpose of the research is specific and interpretive, aiming for depth of understanding rather than generalizability in the statistical sense (Thorne, 2016). Saturation is evident when participants share similar roles and practice settings (Guest et al., 2006; Hennink & Kaiser, 2022). I closely monitored the emergence of themes and continued recruitment and interviews until redundancy in responses and the absence of new patterns were observed (Guest et al., 2020).

Instrumentation

To gather data, I used a demographic questionnaire and a semistructured interview guide (see Appendices C and D). The demographic questionnaire collected descriptive information, including age, gender, level of education, and years of experience in nursing and telephone triage. Collecting this data type is common in qualitative studies to help contextualize participants' experiences and facilitate meaningful cross-case comparisons (Patton, 2023).

I developed a semistructured interview guide as the primary data collection instrument to elicit detailed participant narratives (see Appendix D). Peplau's (1991) interpersonal relations theory, which emphasizes nurses' therapeutic roles during interpersonal interactions, informed the development of this guide. To ensure alignment

with the study's purpose and research aims, I mapped each interview question to one or more RQs. For example, RQ1 focused on how nurses described communication challenges during telephone triage, and Interview Questions 1–3 elicited participants' experiences with language barriers, emotional stress, and the management of caller expectations.

The demographic questionnaire (see Appendix C) complemented the qualitative data by providing contextual information and enabling cross-case comparisons across variables such as years of experience, practice setting, and triage modality. I designed the interview questions to reflect Peplau's theoretical phases of orientation, identification, exploitation, and resolution, while adapting these concepts to the dynamics of telephone-based nursing care. Contemporary empirical research also informed the development of the interview guide to ensure its relevance to current practice contexts (e.g., Gustafsson & Wahlberg, 2023; Holmström et al., 2022; Plocienniczak et al., 2022).

To support methodological rigor and content validity, I aligned the interview guide with Peplau's theoretical constructs (Peplau, 1991) and with the five-phase telephone nursing dialogue process described by Gustafsson and Wahlberg (2023). These phases, orientation, working, and termination, were consistent with telephone triage, as nurses build rapport and provide education. This process helps ensure that patients leave the interaction feeling empowered and informed. The interview guide addresses communication challenges identified in the problem statement, including language barriers, emotional distress, cultural differences, and the absence of visual cues, and aims to explore how nurses maintain therapeutic engagement and manage uncertainty in non-

face-to-face interactions (Anderson et al., 2024; Mattisson et al., 2023; Spek et al., 2023). I used the guide to explore how nurses maintained therapeutic engagement and managed uncertainty during non–face-to-face interactions.

Although I designed the guide specifically for U.S.-based triage nurses, I recognized that cultural and contextual variations might emerge during interviews. I remained attentive to these nuances and integrated them into the interpretive process. As the sole researcher, I conducted all interviews, transcribed the recordings verbatim, and maintained reflective field notes throughout the data collection process (see Appendix E). To ensure confidentiality, I de-identified all transcripts and stored the data securely.

Procedures for Recruitment, Participation, and Data Collection

I distributed recruitment materials electronically after obtaining Walden University Institutional Review Board (IRB) approval (Creswell & Poth, 2023). Interested nurses contacted me via email, and I followed up by sending an eligibility screening form, consent document, and demographic questionnaire. These procedures were consistent with the ethical principles of informed consent and participant autonomy (Lincoln & Guba, 1985).

I emailed selected participants an informed consent form outlining the study's purpose, procedures, potential risks and benefits, confidentiality measures, and the voluntary nature of participation, and I reviewed the consent form verbally with participants before each interview. Interviews were scheduled at times convenient for each participant and were conducted either through a computer-based platform or by

phone. Data collection occurred over a 4- to 6-week period. Each session began with confirmation of verbal consent and a brief review of the study's purpose.

Interviews lasted approximately 45-60 min, consistent with the recommended duration for in-depth qualitative interviews (Brinkmann & Kvale, 2018). Participants retained the right to withdraw from the study at any time without consequence, consistent with ethical standards for voluntary participation (Lincoln & Guba, 1985). To protect confidentiality, I assigned pseudonyms and stored all audio recordings and transcripts on encrypted, password-protected devices (Creswell & Poth, 2023).

Data Analysis Plan

I analyzed the interview transcripts and field notes using Braun and Clarke's (2019) six-phase thematic analysis method, which required me to familiarize myself with the data, generate initial codes, search for themes, review themes, define and name themes, and produce the final report. I transcribed the interviews verbatim and immersed myself in the data through repeated reading. I then conducted first- and second-cycle coding following Saldaña's (2021) guidelines to develop the initial codes and categories. I refined these categories into overarching patterns and meaningful themes, allowing for flexible yet structured theme development consistent with interpretive description (Thorne, 2016). The codebook is in Appendix F.

To initiate the analysis, I coded the data inductively, beginning with in vivo codes that reflected participants' own words and expressions. I reviewed each transcript line by line to identify key concepts and meaning units grounded in participants' language, which supported the development of an open-code list centered on their perspectives

rather than on preexisting categories. I then applied focused coding to refine, expand, or collapse the initial codes into broader analytic categories, using the RQs and Peplau's theoretical framework to guide these decisions. Thematic patterns emerged through constant comparison of codes within and across transcripts, consistent with interpretive description methodology (Thorne, 2016). This analytic approach supported inductive category development while maintaining theoretical sensitivity. I used Atlas.ti software to organize the data, manage code groups, and support the refinement of emerging themes. The coding process followed Saldaña's (2021) guidance on developing initial and focused codes that evolve into analytic categories and themes. Throughout the process, I maintained a reflexive journal to document coding decisions, track changing interpretations, and monitor potential bias (Nowell et al., 2017). I examined discrepant cases deliberately and reported them to enhance analytic rigor and strengthen the credibility of the findings (Creswell & Poth, 2023; Lincoln & Guba, 1985).

To ensure trustworthiness in this qualitative study, I used multiple strategies to strengthen credibility, confirmability, and transparency (Lincoln & Guba, 1985). Because I served as the sole researcher, I relied on reflexive journaling, detailed documentation, and an audit trail rather than peer debriefing. Reflexive journaling allowed me to examine my assumptions, monitor potential bias, and record decision-making throughout data collection and analysis (Creswell & Poth, 2023). Maintaining a comprehensive audit trail supported confirmability by clearly documenting coding decisions, analytic reflections, and methodological choices, ensuring that the findings were grounded in the data rather than personal perspectives. These strategies are widely endorsed in qualitative research as

effective means of promoting reflexivity, analytical integrity, and methodological rigor, particularly in studies conducted without external reviewers (Creswell & Poth, 2023; Lincoln & Guba, 1985). By using these strategies, I enhanced the transparency and trustworthiness of the thematic analysis.

Issues of Trustworthiness

Establishing trustworthiness in qualitative research began with critical self-awareness. As a nurse and researcher, I recognize that while I may share professional experiences with participants, their perspectives remain distinct and hold significant influence. To minimize the impact of personal bias, I engaged in ongoing reflexive journaling, capturing thoughts, emotions, and assumptions as they arose during data collection and analysis. This practice supported bracketing preconceptions and facilitated an open, analytic stance toward participants' narratives.

Credibility, the degree of confidence in the truth of the findings, depends on the use of rigorous methods and the authentic representation of participant voices (Polit & Beck, 2017). In-depth, semistructured interviews offered space for rich storytelling and nuanced reflection. I analyzed the data systematically, supported by methodological triangulation across sources such as transcripts and reflexive notes (Ahmed, 2024; Vella, 2024). I documented interview interactions and included direct quotes that illustrated key themes to ensure transparency. Collectively, in-depth interviews, systematic analysis, triangulated data sources, and direct quotations strengthened the credibility of the findings and their contribution to nursing scholarship.

To support transferability, I provided readers with a clear understanding of the study context. I maintained detailed field notes, tracked sample characteristics, and included excerpts from transcripts to capture participants' voices and experiences. These strategies contributed to the development of a rich, contextual narrative situated within the real-world practice of telephone triage nursing. Rich, thick description allows readers to determine whether findings may apply to other settings or populations (Creswell & Poth, 2023). By grounding interpretations in participant context and language, the study supported analytic generalization and strengthened interpretive relevance.

Consistency in the research process is crucial for demonstrating dependability. Throughout the analysis, I maintained an audit trail to document methodological decisions, coding refinements, and theme development. Triangulation across multiple data types confirmed analytic consistency (Janis, 2022). A structured and transparent approach supported replicability, allowing others to trace the logic behind the findings. My study reflected coherence and methodological rigor by clearly documenting my steps.

Confirmability ensures that findings emerge from the data rather than from personal bias. Throughout the analysis, I used memo writing to capture shifts in interpretation and reflect on how meaning develops. Regular peer debriefing with a research mentor offered opportunities to assess assumptions and strengthen analytical neutrality (Ahmed, 2024; Kakar et al., 2023). Including participants' own words further grounded interpretations of lived experience. Together, these efforts aim to demonstrate that the evidence, not the researcher, drives conclusions.

To ensure intra-coder reliability in this qualitative study, I adopted a deliberate and systematic coding process. I conducted multiple rounds of coding on each transcript to verify consistency and stability over time. After transcribing each interview, I reviewed the corresponding audio recordings, generated analytic memos, and used Microsoft Excel to track emergent codes and refine themes. The iterative process enabled me to assess whether similar codes emerged across repeated reviews of the same dataset. By engaging in self-monitoring and maintaining detailed documentation of coding decisions, I enhanced the dependability and confirmability of the study (see Lincoln & Guba, 1985; Saldaña, 2021). Through this transparent approach, I grounded the findings in the data rather than allowing a single interpretation to influence them.

Ethical Procedures

I complied with Walden University's ethical guidelines for research involving human participants. I fulfilled all IRB requirements related to participant recruitment, informed consent, data collection, and data management (Walden University, 2025). Additionally, I adhered to the principles outlined in the *Belmont Report*, which emphasizes respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). I obtained formal IRB approval (08-12-25-0605893) before beginning data collection and included the approval number and date in the final documentation.

To initiate recruitment, I submitted all required IRB documentation for review and approval, including the informed consent form, demographic survey, screening tool, and recruitment flyer. Because the study did not involve a specific institution or

employer, no site authorization or access agreements were required. I recruited participants independently through public social media platforms, the Walden University participant pool, and professional nursing networks.

Participation in the study was entirely voluntary, and I anticipated no risks beyond minimal psychological or emotional discomfort. To reach potential participants, I posted digital recruitment flyers on Facebook, LinkedIn, X (formerly Twitter), Instagram, and nursing forums (see Green et al., 2021). Interested individuals contacted me directly, a recruitment strategy I selected to reduce any perceived obligation to participate and to minimize the potential for coercion, consistent with ethical guidance on voluntary participation in qualitative research (Lincoln & Guba, 1985).

Before screening began, each potential participant received a detailed informed consent form outlining the study's purpose, procedures, risks and benefits, data protection measures, and participant rights. Verbal confirmation of consent occurred before data collection proceeded. Participants retained the right to withdraw from the study at any time without consequence, and any withdrawn data, including transcripts, demographic responses, and notes, would be deleted immediately; however, all participants completed the study. At the conclusion of each interview, I offered a brief verbal debriefing, provided contact information for any follow-up questions, and then turned off the audio recorder.

To accommodate individual preferences and promote accessibility, I conducted all interviews by telephone, mirroring the communication methods used in participants' daily triage work. Using a familiar modality increased participants' comfort and reduced

barriers to participation, a strategy supported by research demonstrating that alignment between interview methods and professional routines enhances engagement in qualitative studies involving health care professionals (Namey et al., 2022). Allowing participants to use a communication format consistent with their practice supports ethical engagement by minimizing burdens and empowering them to exercise autonomy. The approach aligned with the study's commitment to inclusivity and equitable research practices.

I conducted all interviews by telephone. I protected participant privacy and data integrity by storing the audio recordings on a password-protected, encrypted external drive with no cloud access. Before recording each interview, I reconfirmed verbal consent to ensure ethical transparency and support participant comfort (Budworth, 2023; Mohd Arifin, 2018). Pseudonyms were assigned, and identifying information was removed during transcription to maintain confidentiality (Itzik & Walsh, 2023). At the start of each interview, I introduced myself and maintained a respectful, neutral tone throughout. I monitored for signs of emotional discomfort and paused or stopped the interview when necessary while reminding participants of their right to withdraw at any point (Ahmed, 2024). Only I have access to the data. Per Walden University policy, I will retain the data for 5 years before permanently deleting electronic files and shredding hard copies.

Although I worked in the same organization as the participants, none of them reported to me. I recruited only colleagues with whom I had equal professional relationships to limit power dynamics and avoid any pressure to participate. I did not offer incentives to ensure participation remained voluntary and free from undue

influence. Even though I was familiar with the clinical setting and the telephone triage role, I used reflexive journaling and memo writing to set aside my own assumptions and support a neutral approach to the analysis. These reflective practices enhanced ethical transparency by documenting decision-making processes, monitoring my perspectives, and tracking the development of emerging themes.

Summary

In this chapter, I described the interpretive description qualitative research design that guided this study and outlined my role as the researcher. I also explained the methodology, including the target population, participant selection criteria, sampling strategy, and data collection and analysis procedures. Data were collected through one-on-one, semistructured interviews using an interview guide informed by Peplau's theory of interpersonal relations and the five-phase telephone triage communication model. Thematic analysis, as outlined by Braun and Clarke (2019), guided the data analysis and was supported by inductive coding in ATLAS.ti software. In addition, I discussed strategies used to ensure trustworthiness, including credibility, transferability, dependability, and confirmability. Ethical considerations, including informed consent, voluntary participation, data confidentiality, and IRB approval, were addressed throughout the research process. In Chapter 4, I present the findings of this study.

Chapter 4: Results

The purpose of this interpretive description qualitative study was to explore how RNs experienced and navigated communication challenges during telephone triage. In voice-only encounters, nurses assessed callers without visual cues while managing language differences, emotional distress, cultural variation, and ambiguous symptom descriptions. Participants described how these conditions shaped their communication practices during remote clinical assessments.

In this chapter, I describe the study setting, participant demographics, data collection procedures, and the data analysis process. Evidence of trustworthiness is then presented, followed by the study findings. To clearly demonstrate these results, I organized the findings into themes and subthemes that reflect the patterned communication practices described by participants during telephone triage encounters. These findings addressed the following RQs:

RQ1: What were nurses' experiences navigating communication barriers related to gender, language, cultural differences, emotional dynamics, and nurse–patient interactions during telephone triage encounters?

RQ2: How did nurses adapt communication strategies to navigate communication barriers, emotional stress, and nurse–patient interactions over the phone?

Setting

I conducted the study between August and October 2025 with RNs who provided nurse-led telephone triage services to a culturally and demographically diverse patient population. To recruit participants, I distributed an IRB–approved flyer via organizational

email and social media. Interested nurses contacted me directly, which allowed me to confirm eligibility before participation. Before each interview, I reviewed the study purpose, addressed questions, and obtained verbal informed consent.

Although this study did not involve a formal partnership with any health care organization, all six participants were employed RNs within one large Midwestern health system. The system includes multiple hospitals, outpatient clinics, and specialty centers; however, it is one of several similarly structured health systems in the region. To protect confidentiality, the study does not name the organization, describe its size, or specify the states in which it operates. The only relevant contextual feature is that the system offers a centralized telephone triage service that serves diverse urban and rural populations. These details provide sufficient context for understanding the setting while preventing readers, whether internal or external to the organization, from reasonably identifying the institution.

Participants completed most triage tasks remotely. The nurses primarily worked from home and periodically completed in-office shifts, depending on their full- or part-time status. Regardless of physical location, all participants accessed the same secure electronic triage platform and followed standardized protocols to document calls, assess symptoms, and determine the appropriate level of care. Interpreter services and electronic clinical resources were available to support communication consistency and promote patient safety.

Demographics

Six RNs participated in the study. All participants were female, licensed in Midwestern states, and employed within the same regional health system that delivered nurse-led telephone triage across hospitals, outpatient clinics, and specialty departments. Each nurse had at least one year of telephone triage experience, and all had more than 20 years of overall nursing experience. Participants ranged in age from their 50s to 70s, representing mid- to late-career professionals with extensive clinical backgrounds.

Most participating nurses held a Bachelor of Science in Nursing degree, and several had additional professional or graduate coursework. The range of educational preparation reflected the diversity of academic pathways common among experienced nurses in large health systems. Variation in years of telephone triage experience created a mix of midcareer and seasoned clinicians, which supported understanding of how professional experience shapes communication confidence, adaptability, and empathy in voice-only triage encounters. Collectively, the group's extensive clinical knowledge and varied tenure contributed to a detailed understanding of how nurses manage relational and informational complexities in telephone-based care. Table 2 presents participant demographics.

Table 2.

Participant Demographics

Participant ID	Age range (years)	Gender	Ethnicity	Years of nursing	Years in telephone triage
P1	≥ 61	Female	White	> 20	> 10
P2	≥ 61				1–5
P3	≥ 61				> 10
P4	≥ 61				1–5
P5	≥ 61				> 10
P6	51–60				6–10

Data Collection

I collected data through semistructured telephone interviews with six RNs who, during demographic data collection, reported employment within the same Midwestern health care system. Although recruitment flyers were broadly distributed through social media and the Walden University participant pool, all volunteers were nurses employed within this single system. The shared employment setting was not intentional and did not result from targeted recruitment of a specific organization; rather, it emerged through voluntary participation after nurses independently responded to the IRB-approved recruitment materials and completed informed consent. Data collection commenced following approval from Walden University's Institutional Review Board (approval no. 08-12-25-0605893). All participants met the inclusion criteria of being licensed RNs with at least 1 year of telephone triage experience within the health system. After reviewing the IRB-approved recruitment flyer and informed consent document, eligible nurses voluntarily elected to participate.

Over 8 weeks from August 14, 2025, to October 8, 2025, I conducted all interviews using an IRB-approved interview guide designed to explore communication challenges, relational strategies, and adaptive processes in telephone triage encounters. The approach aligned with interpretive description, which emphasizes rich, contextual accounts of professional experience to inform practice (Thorne, 2016). Peplau's (1991) interpersonal relations theory guided the interview questions by focusing on relational interaction, mutual understanding, and communication behaviors that influence nurse–patient encounters.

Participants selected interview times that supported privacy and comfort, often scheduling sessions on nonworking days. Although I planned each interview to last 40 to 60 min, the actual length ranged from 25 to 40 min, depending on the depth of participants' responses. At the beginning of each interview, I reconfirmed verbal consent to participate and to audio-record the session.

I used two secure smartphone applications, Plaud Note and Cube ACR, to capture interview audio. Plaud Note has been used in peer-reviewed qualitative research examining AI-assisted transcription and writing processes, demonstrating its credibility as a tool capable of producing accurate, research-grade transcripts (Castiglione, 2025). Cube ACR has also been used in published nursing research and has shown reliability in creating clear, high-quality audio suitable for qualitative analysis (Jacob et al., 2022). Researchers across community, family, and health care settings have documented the practicality, reliability, and ethical feasibility of smartphone-based audio recording tools for qualitative data collection, further reinforcing the appropriateness of these

applications (Marshall et al., 2025; Purkarthofer, 2019; Ryan et al., 2022; Welford et al., 2022). Contemporary scholarship on transcription practices emphasizes the importance of high-quality digital audio files and secure handling rather than reliance on any specific device or application (Eftekhari, 2024). Using two recorders enhanced data integrity by providing backup audio files and supported accurate, verifiable transcription while maintaining participant anonymity and confidentiality.

After each interview, I generated a verbatim transcript using the Plaud.AI application, then manually reviewed and corrected it against the recording to ensure accuracy. Immediately after transcription, I recorded field notes about tone, contextual observations, and early analytic reflections. The verified transcripts were then formatted in Microsoft Word and organized for subsequent coding and thematic analysis. Data saturation was reached when no new ideas or perspectives emerged in the final two interviews; responses became repetitive, elaborating previously identified patterns rather than introducing new ones. I stored all audio files, transcripts, and field notes on a password-protected, encrypted device accessible only to me. In accordance with Walden University's ethical guidelines, I removed identifying information and maintained participant confidentiality throughout data collection and transcription.

As the sole researcher, I remained aware of my professional background as an RN and engaged in ongoing reflexive practice. I documented assumptions, impressions, and emerging insights in a reflexive journal and documented analytic memos after each interview. One interview recording was shorter than planned due to a technical issue that affected the recording of the verbal consent segment; however, the remainder of that

interview captured all study questions and responses. No additional irregularities occurred during data collection.

Data Analysis

I analyzed the interview data using Braun and Clarke's (2019) six-phase thematic analysis and applied the iterative, inductive logic central to interpretive description. My goal was to move beyond surface descriptions and generate practice-relevant insights about how nurses navigate communication challenges in telephone triage. I began by immersing myself in the data through multiple readings of each transcript. This initial engagement helped build familiarity with each participant's narrative and noted early impressions of communication behaviors, emotional dynamics, and caller–nurse relational patterns. During this phase, I wrote brief analytic memos to capture initial reflections and link them to Peplau's interpersonal relations theory.

Next, I conducted first-cycle coding using descriptive and in vivo codes to remain close to participants' language (Saldaña, 2021). I coded each transcript line by line in Atlas.ti, assigning codes that captured communication behaviors, such as clarifying symptoms, reassuring callers, and redirecting conversations, as well as emotional cues, and communication barriers, including caller distress, language differences, and the absence of visual cues. During this phase, I intentionally avoided interpretation and instead focused on identifying discrete units of meaning grounded in participants' accounts.

During second-cycle coding, I clustered related codes into broader categories that reflected recurring ideas across interviews (Saldaña, 2021). I used constant comparison to

determine whether each coded segment fits the emerging categories and, as needed, revised or collapsed them. These categories represented recurring challenges, including managing caller emotions, adapting communication to linguistic or cultural differences, compensating for the lack of visual assessment, and maintaining boundaries during difficult calls. Throughout this process, I wrote analytic memos to document coding decisions and track developing interpretations.

I then moved from categories to theme development using Braun and Clarke's (2006, 2019) thematic analysis framework. I reviewed coded excerpts within each category to identify central patterns of meaning and drafted preliminary themes that described how nurses experienced communication challenges. I refined these themes by comparing them with the complete data set to ensure they were conceptually distinct, grounded in participant evidence, and consistent with the relational concepts in Peplau's theory. When themes overlapped, I combined them; when themes appeared overly broad, I narrowed or reorganized them to improve clarity.

To strengthen dependability and confirmability, I documented each analysis stage in Atlas.ti memos and maintained an audit trail that included coding summaries, category descriptions, and theme development notes. The documentation provided a transparent account of analytic decisions and reflexive observations. For the final stage, I defined and named the themes and selected representative quotes from multiple participants to illustrate each theme. I reviewed the entire data set again to ensure the themes accurately represented participants' experiences and addressed the RQs. I also addressed discrepant cases. When a participant described a communication experience that differed from the

dominant pattern, I examined how that variation added nuance to the interpretation. These divergent accounts enriched the findings by highlighting the range of communication challenges in telephone triage. The final themes reflect the culmination of this analytic process and provide an integrated description of how nurses experience and navigate communication challenges during telephone triage.

Evidence of Trustworthiness

To enhance methodological rigor and support confidence in the findings, I applied Lincoln and Guba's (1985) criteria of credibility, transferability, dependability, and confirmability.

Credibility

To promote credibility, I used consistent data collection and analytic procedures and remained closely engaged with the data. Throughout the study, I applied the same semistructured interview protocol, which allowed participants to describe their communication experiences in their own words while ensuring that key topics were consistently addressed. Using AI-assisted software, I generated verbatim transcripts, which I then manually reviewed and corrected to ensure accuracy. Sustained engagement with the data occurred through repeated reading, systematic coding, and ongoing return to the transcripts during analysis.

I also used reflexive and analytic memos to monitor my assumptions and document analytic decisions. These practices supported transparency and reduced the likelihood that my professional perspective would overshadow participants' voices. Although I did not conduct member checking, which is considered optional in

interpretive description, I strengthened credibility through systematic coding, iterative theme development, reflexive journaling, and the careful selection of quotations that represented the breadth of participant experiences.

Transferability

I supported transferability by providing a thick description of the study context, participant characteristics, and communication experiences described in interviews. Table 2 summarizes participants' ages, years of nursing experience, and triage experience. In the Setting section, I described the characteristics of the telephone triage program and the nature of calls handled within the health system. Detailed presentation of themes and subthemes, along with illustrative quotes, offers insight into how nurses experienced and responded to communication challenges. These descriptions enable readers to determine the extent to which the findings may apply to other telephone triage services or remote care environments.

Dependability

I enhanced dependability by maintaining a clear audit trail that documented each stage of the research process. Within Atlas.ti, I organized transcripts, codes, memos, and categories, creating a transparent record of how the analysis progressed from raw data to themes. The audit trail included coding summaries, category descriptions, theme development notes, and reflexive memos that captured the reasoning underlying analytic decisions. Following established analytic procedures, Braun and Clarke's (2019) thematic analysis framework and Saldaña's (2016) first- and second-cycle coding techniques further strengthened methodological consistency. Together, these steps enable other

qualitative researchers to trace the study's progression and understand how I developed the findings.

Confirmability

I strengthened confirmability through deliberate reflexive practices and systematic documentation of analytic decisions. Throughout data collection and analysis, I wrote memos to record personal reflections, potential biases, and reactions to participants' descriptions. These writings helped me remain aware of my dual role as a triage nurse and researcher and supported efforts to distinguish clinical experience from analytic interpretation. Direct quotations from participants appear throughout the Results section to demonstrate that themes are grounded in the data. The audit trail, systematic coding, and reflexive documentation together indicate that the findings emerged from participants' accounts rather than from my preconceived assumptions.

Results

In their interviews, the six RNs who participated in the study described their communication experiences during assessments of callers without visual cues. Through iterative analysis, I identified five overarching themes that reflect shared patterns across participants' accounts. Within each theme, subheadings represent analytic patterns derived from the coding process and function as subthemes that capture recurrent communication challenges and strategies.

During second-cycle coding, I developed categories that informed the subthemes and integrated them into the overarching themes presented in this section. All six participants contributed to the findings, although the frequency and context of

contributions varied by theme. Participant quotations illustrate how nurses navigated complex, emotionally charged, and ambiguous interactions during telephone triage encounters. The findings are organized using Peplau's interpersonal roles of stranger, resource person, counselor, and leader as they appeared across the orientation, working, and termination phases of telephone triage. This structure supports an integrated presentation of relational processes while preserving the inductive nature of the analytic findings.

Theme 1: Development of Rapport Through Voice-Based Strategies

During telephone triage encounters, nurses described rapport-building as a deliberate and ongoing communication process rather than a single interactional step. Because they lacked visual cues, participants reported relying on vocal strategies to establish trust, orient callers to the interaction, and support effective assessment. All six participants contributed to this theme by describing how they intentionally used tone, pacing, and early listening to establish rapport during telephone triage encounters. Although participants emphasized different techniques, each described rapport-building as essential to initiating an effective assessment in the absence of visual cues.

Creating Warmth and Calm Through Tone

Participants consistently used tone to create a sense of emotional safety at the start of a call. Nurses shared that responding in a warm, steady, and professional tone helped callers feel grounded, particularly when they were anxious or uncertain. Participant 5 described using a "calm concerned voice," while Participant 4 emphasized maintaining a "steady, warm, and friendly voice at all times," regardless of what was occurring during

the call. Participant 2 further highlighted the intentional use of vocal affect, explaining, “When you talk, you have to smile so that they can feel it,” noting that callers could hear emotional cues through tone alone.

Listening First to Understand Caller Needs

Participants frequently allowed callers to begin speaking before introducing structure. This early listening helped nurses assess callers’ emotional states, concerns, and communication styles. Participant 6 explained,

> My approach is, I usually allow them to start talking… I just kind of let them go. I think after you do it for so long, you can feel a bit too on how this person is—if they’re genuine, if they’re kind of just a needy caller, or if they’re just someone looking for attention. I don’t say that in a derogatory manner either. It just might be that they need someone to talk to.

Participant 5 similarly noted that callers’ opening statements often revealed the core issue and guided the remainder of the assessment. Nurses described this open listening not only as rapport-building but also as essential for clinical judgment, particularly when callers struggled to organize their thoughts.

Participants also noted that listening-first requires patience, particularly with frequent callers or individuals who ramble. Participant 3 shared, "With some of our behavioral health callers, you have to just listen at first. Even though it's the same issue as last night, you can't blow them off." Others described needing to stay attentive even when callers repeated themselves or reported vague symptoms. Participant 6 explained that some callers were unsure what they needed, so she allowed them to speak until she

identified a point she could address. The approach supported both relational connection and accurate triage decision-making, although it sometimes made calls longer or more emotionally taxing for nurses.

Nurses also described tone as a means of reducing caller defensiveness and easing tension. Participant 6 noted, "I try to be open and welcoming… because it is a service we're offering, and they deserve to feel comfortable right away." Others emphasized that callers often arrive frustrated, especially when they expected to speak to their own provider. Participant 5 shared, "Sometimes they come in already irritated because they couldn't get their questions answered, so I make sure my tone is calm to help settle things."

Participants also acknowledged the challenges of maintaining a calm tone during high-stress or back-to-back calls. Participant 6, who worked overnight shifts, described how fatigue affected both callers and nurses, noting that maintaining vocal calmness required intentional effort despite shared exhaustion. Despite these challenges, tone remained a key strategy nurses used to signal presence, empathy, and readiness to help.

Guiding the Call With Respectful Structure

Once they established rapport, nurses shifted to a more structured communication style to move the call toward clinical assessment. Participants emphasized the importance of guiding the conversation without making callers feel rushed or dismissed. Participant 3 described her redirection approach: "This will go faster if I can get a few questions answered, and then I'll be more than happy to help you."

Several nurses used supportive language to help callers regain focus when conversations became scattered or emotionally intense. Participant 5 noted, "If they're really upset, I step back and say, 'Tell me exactly what your call is about. We'll figure it out together.'" Nurses explained that this collaborative phrasing helps callers feel supported by reorienting them during the call. Participants also discussed the challenge of balancing structure and empathy. Some callers were embarrassed or hesitant to share information. Participant 6 explained, “I usually allow them to start talking. I let them however they want to do it.” Others described situations in which callers were resistant or argumentative, requiring nurses to maintain professionalism while keeping the call on track. For example, one nurse shared, "I actually switch a little bit and I take control.” (Participant 4).

Nurses also noted that guiding the call can be difficult when callers misunderstand the purpose of triage or expect immediate answers without asking questions. Participant 5 explained, "Some think they're talking to their doctor. They get annoyed that I'm asking questions, so I explain why it's important." This educational component helped sustain rapport and encouraged cooperation through the assessment process.

Theme 2: Navigation of Communication Barriers Through Adaptive Strategies

Participants described encountering multiple communication barriers during telephone triage, often within the same call. In response, nurses explained how they adjusted their communication in real time to address language differences, emotional distress, and caller confusion while maintaining focus on assessment and safety. This theme was reflected in the experiences of all six participants, although the specific

barriers and adaptive strategies described varied across calls and contexts. Participants consistently emphasized the need to remain flexible as communication challenges arose during telephone triage.

Adapting to Language Barriers and Interpreter Challenges

Several nurses explained that language barriers made it difficult for callers to provide clear or complete descriptions of their symptoms. Participants described challenges related to understanding callers' speech, unfamiliar terminology, and the complexity of interpreter-mediated communication. These situations often required nurses to slow the pace of the interaction and use additional clarification strategies to preserve assessment accuracy.

Participants described using interpreter services early when language barriers were identified. One nurse stated, "I'm pretty quick to get an interpreter on the phone" (Participant 1). Despite this proactive approach, interpreter-mediated calls introduced additional layers of complexity. Nurses emphasized the importance of trust and precision when communicating through interpreters. As Participant 1 explained, "I trust them completely because of the services that we contract with… they're going to ask the questions exactly as I ask them or ask for clarification if they don't think they understand."

Even with interpreter support, nurses described situations in which word-level understanding remained challenging. Participants emphasized that callers were highly responsive to vocal tone, noting that maintaining a calm, steady delivery often helped de-escalate emotionally charged interactions and supported clear communication. These

adaptive strategies helped nurses maintain accuracy when language barriers persisted despite interpreter involvement.

Managing Emotional Intensity and Caller Distress

Participants also navigated communication barriers created by callers' emotional states. Distress, fear, frustration, or heightened anxiety often disrupted the flow of information and made it harder for callers to communicate clearly or remain focused. Participants described situations in which emotional escalation interfered with reasoning, requiring nurses to pause structured assessment and redirect the interaction toward calming strategies.

To manage emotional intensity, nurses described grounding the conversation through deliberate tone control and reassurance. Participant 6 emphasized the importance of vocal modulation, stating, "People respond to your tone—if you're calm, they calm down." These efforts helped stabilize emotionally charged interactions and allowed callers to resume more effective communication, supporting continued assessment and decision-making.

Theme 3: Clarification of Symptoms When Callers Struggle to Communicate Clearly

Participants described managing substantial emotional and cognitive demands while guiding callers through telephone triage. These demands were most pronounced when callers were distressed, provided conflicting information, or struggled to communicate clearly. Nurses explained that emotional regulation and clinical reasoning

occurred simultaneously, requiring them to stabilize the interaction while maintaining focus on assessment and safety.

Staying Calm and Regulating the Interaction

Participants reported that heightened caller distress increased the emotional workload of the call and often disrupted the assessment process. Emotional escalation sometimes limited nurses' ability to reason through the situation, requiring them to redirect or contain the interaction before proceeding. One nurse described the difficulty of continuing assessment during intense emotional expression, explaining that emotional escalation could stall progress and require a shift in communication approach before assessment could continue.

Participants also reported encountering conflicting information during emotionally charged calls, further increasing cognitive strain. One nurse described weighing emotional cues against clinical indicators, stating, "They're telling me they can't breathe, but they can talk to me and someone in the background" (Participant 6). These contradictions required nurses to weigh emotional cues against clinical indicators while maintaining composure and prioritizing safety.

Balancing Empathy With Professional Boundaries

Participants emphasized the importance of acknowledging caller distress while maintaining professional boundaries to prevent emotional intensity from overwhelming the assessment. Nurses described allowing callers space to express emotion as a deliberate strategy to stabilize the interaction. One participant explained, "Mainly I need

to let them vent" (Participant 3). This approach helped reduce emotional escalation and allowed nurses to regain control of the conversation.

While demonstrating empathy, participants noted the need to remain focused on clinical goals. They described managing their own emotional responses to ensure that compassion did not interfere with assessment accuracy. This balance enabled nurses to remain supportive while continuing to guide the interaction toward information gathering and decision-making.

Managing Cognitive Load During Assessment

Participants described significant cognitive effort when interpreting vague, inconsistent, or rapidly shifting symptom descriptions. Emotional distress, unclear language, and conflicting details required nurses to synthesize information while adapting their questioning strategies. One nurse described this process as needing "to dive pretty deep to get what the main problem is" (Participant 5). This statement illustrates the sustained mental effort required to clarify meaning and identify the primary concern during complex calls. When communication difficulties persisted, nurses used clarification techniques to support understanding and maintain assessment accuracy. These strategies helped mitigate cognitive overload and supported safe triage decisions despite limited or ambiguous information.

Recognizing Growth and Confidence Over Time

Several participants reflected on how experience reduced the emotional and cognitive burden associated with complex calls. Over time, nurses developed greater confidence in managing distress, ambiguity, and competing demands. Participants

reflected on how experience reduced the emotional and cognitive burden associated with complex calls, noting that confidence increased over time and supported more effective clinical judgment. Increased confidence allowed nurses to remain composed during challenging interactions and apply clinical judgment more effectively. Together, participants' accounts illustrate how emotional regulation, focused listening, and sustained cognitive effort shaped their daily work in telephone triage. Managing these demands was not described as a separate task but as an integrated component of providing safe and effective remote assessment.

Theme 4: Using Clinical Judgment to Interpret Ambiguous and Culturally Influenced Symptom Descriptions

Participants described the challenges of interpreting symptom descriptions during telephone triage when callers communicated indirectly, used unfamiliar language, or struggled to articulate their concerns clearly. Without visual cues, nurses relied on careful listening, repeated clarification, and attention to subtle auditory cues to make sense of ambiguous information. This theme reflected how nurses worked to interpret meaning while maintaining assessment accuracy in voice-only encounters. Contributions to this theme were evident across participants, with variation in emphasis based on individual experiences and call contexts.

Interpreting Meaning Without Visual Confirmation

Participants emphasized that the absence of visual information required heightened attention to auditory cues during telephone triage. Nurses described listening closely to pauses, breathing patterns, and background sounds to gain insight into callers'

conditions when symptom descriptions alone were insufficient. Participant 3 explained, "We really don't have a visual, so I have to listen for the pauses, the breathing, even background noises." These auditory details supported interpretation when information could not be confirmed through observation.

Participants also described developing sensitivity to subtle changes in callers' voices over time. Experience contributed to an increased ability to recognize when something seemed concerning, even with limited or unclear descriptions. Participants described developing an intuitive sense over time that helped them realize when something sounded concerning, even when callers could not clearly explain their symptoms.

Clarifying Ambiguous or Indirect Communication

Participants described ambiguity as a common feature of telephone triage calls, particularly when callers did not fully understand questions or lacked the language to describe their symptoms. Nurses explained that clarification often required transparency, repetition, and rephrasing. Participant 2 stated, "If I'm not understanding something, I'll be honest and say I'm not sure I'm understanding… reask the question." This approach helped nurses address misunderstandings while maintaining rapport and keeping the assessment focused.

Rephrasing questions was described as a routine strategy when initial explanations were unclear. Participant 2 explained, "Sometimes you have to ask the same question a different way because they don't always understand what you're asking the first time." Repetition and rewording allowed nurses to refine their understanding and

gather information needed to continue assessment despite indirect or confusing communication.

Interpreting Second-Hand Information

Participants also described additional interpretive challenges when information was relayed by someone other than the patient. In these situations, symptom descriptions were often filtered through another person's perspective, increasing uncertainty and limiting access to firsthand cues. Nurses noted that second-hand reporting required additional clarification and careful listening to understand the patient's condition. Interpreting information from a third party heightened the ambiguity of the call and required nurses to rely more on rephrasing questions and attending to contextual details to support continued assessment.

Integrating Experience to Navigate Uncertainty

Participants described how experience over time supported their ability to interpret ambiguous and indirect symptom descriptions. Familiarity with common communication patterns in telephone triage helped nurses recognize when information was missing and when further clarification was needed. Rather than relying on a single response, nurses described integrating auditory cues, repeated questioning, and contextual understanding to construct meaning from limited information.

Together, participants' descriptions illustrate how nurses interpreted ambiguous, indirect, and second-hand symptom descriptions without visual cues by listening closely, clarifying meaning, and drawing on experience. These strategies supported continued

assessment and allowed nurses to navigate uncertainty while maintaining focus on caller safety during telephone triage encounters.

Theme 5: Prioritization of Caller Safety Through Clear Decision-Making and Escalation Practices

Participants described prioritizing caller safety by using structured communication strategies to close telephone triage calls and ensure clarity regarding next steps. In the absence of visual confirmation, nurses emphasized the importance of verifying understanding, reinforcing recommendations, and maintaining responsibility for appropriate disposition. This theme reflected how nurses worked to reduce risk and uncertainty at the conclusion of triage encounters.

Verifying Understanding and Reinforcing Recommendations

Participants described intentionally verifying the caller's understanding before ending the call. Nurses explained that callers often felt overwhelmed, anxious, or confused, which increased the risk of misinterpretation of advice. To address this, participants described restating recommendations, asking callers to repeat key instructions, and checking for unanswered questions. These strategies helped ensure that callers understood what actions to take and when to seek further care. Participants noted that verification was critical when communication had been complicated by emotional distress, language barriers, or indirect symptom descriptions. Nurses described slowing the pace of the interaction at the end of the call to confirm understanding and reduce the likelihood of missed information.

Managing Responsibility for Disposition Without Visual Cues

Participants also described the responsibility of determining and communicating the appropriate disposition during telephone triage. Without the ability to visually assess callers, nurses relied on structured questioning and cautious framing of recommendations to support safe outcomes. Participants emphasized symptom monitoring, warning signs, and clear follow-up instructions when uncertainty persisted. Nurses in the study explained that they approached disposition decisions conservatively when information was incomplete or ambiguous. This approach reflected awareness of the limitations of telephone triage and the need to protect caller safety despite uncertainty.

Closing the Call While Maintaining Therapeutic Engagement

Participants described closing calls in a manner that balanced efficiency with relational care. Nurses explained that maintaining a supportive tone during call termination helped callers feel reassured and confident in the plan of care. Participants explicitly offered continued support, encouraging callers to reach out again if their concerns persisted or worsened. This structured yet relational approach to call closure helped nurses manage risk while preserving trust and accessibility in telephone triage encounters.

Discrepant Cases

During data analysis, I examined the transcripts for any discrepant or deviant cases that did not align with the dominant patterns identified across the five themes. The purpose of this step was to determine whether any participant experiences diverged in meaningful ways that would challenge, refine, or expand the overall understanding of

communication challenges in telephone triage. This analysis is consistent with qualitative best practices for ensuring credibility and demonstrating careful attention to variation in participant experiences.

No cases were completely discrepant in the sample; however, a small number of isolated comments differed slightly in emphasis from the major themes. For example, while most participants described rapport-building as essential to initiating a compelling triage call, one nurse noted that rapport sometimes developed later in the interaction rather than at the start, depending on time constraints or the urgency of the caller's concern. Another participant described feeling comfortable managing communication barriers early in her triage career, whereas others emphasized that confidence developed gradually over time. These differences did not contradict the themes but illustrated normal variation in individual style, experience, and comfort.

In addition, two participants reported fewer difficulties with interpreter services compared to others, explaining that interpreter-assisted calls flowed smoothly for them. Although this perspective was less common, it did not invalidate the broader theme describing interpreter-related challenges. Instead, it demonstrated that comfort with interpreters may vary based on personal experience or familiarity with the service. Overall, the minor variations identified during analysis enriched the understanding of telephone triage communication but did not rise to the level of actual discrepant cases. All participants' experiences aligned with the overarching themes and supported a consistent portrayal of the relational, cognitive, and safety-related demands involved in telephone triage communication.

Summary

The purpose of this qualitative study was to explore RNs' experiences with communication challenges in telephone triage when assessing callers without visual cues. Five themes emerged that together describe the relational, cognitive, and safety-focused work nurses perform to support callers, gather accurate information, and make sound clinical decisions. Findings indicate how triage nurses adapt communication strategies in real time while balancing empathy, clarity, and clinical judgment.

Across the interviews, nurses emphasized that rapport-building is essential to establishing the trust needed for an effective triage call. Participants described using tone, warmth, and early listening to create a connection in the absence of visual contact. Once they established rapport, nurses navigated multiple communication barriers, such as language differences, emotional distress, unclear symptom descriptions, and cultural communication patterns, by adjusting their phrasing, pacing, and questioning. These adaptive strategies allowed callers to feel supported while enabling nurses to gather accurate assessment information.

Nurses also described the emotional and cognitive demands of triage work. Managing caller emotions, maintaining professional boundaries, and simultaneously processing clinical information required sustained focus and composure. Participants explained that these demands increased when callers were distressed, confused, or unable to articulate symptoms clearly. Over time, nurses developed greater confidence and efficiency, drawing on experience to recognize patterns, refine questioning strategies, and manage complex interactions.

Safety remained the central priority throughout the triage process. Participants described using clear, direct language when symptoms indicated potential emergencies and escalating to emergency services or law enforcement when callers were at risk. Nurses viewed these decisions as a critical responsibility, mainly when callers minimized their symptoms, resisted recommendations, or faced emotionally volatile situations. Educating callers about the importance of timely care and the role of triage further supports safe outcomes.

Together, these findings show that telephone triage nursing requires a combination of relational communication, clinical reasoning, adaptability, and situational awareness. Analysis showed how nurses navigate uncertainty, interpret diverse communication styles, and protect caller safety despite the limitations of voice-only interaction. These results lay the groundwork for Chapter 5, in which I interpret the findings in relation to the existing literature and Peplau's theory of interpersonal relations, and explore their implications for practice, policy, and future research.

Chapter 5: Discussion, Conclusions, and Recommendations

In this chapter, I interpret the study's findings following Thorne's (2016) interpretive description design and place them within the broader body of knowledge on communication in telephone triage nursing. In this study, participants described how they navigated communication challenges while conducting symptom assessments without visual cues. Their accounts demonstrated consistent use of relational communication, clinical judgment, and adaptive strategies to promote caller understanding and protect patient safety. These insights illustrate how nurses respond to linguistic differences, cultural variation, emotional distress, and unclear symptom descriptions during remote interactions.

I use this chapter to expand on the meaning and significance of the five themes presented in the results. Each theme aligns with existing research and reflects elements of the theoretical lens that guided the study. I also address the study's limitations, noting how the design, sample characteristics, and my role as the researcher influenced the scope of the conclusions. After describing these limitations, I present recommendations for practice, policy, and future research. The recommendations emphasize targeted communication training, enhanced support for the emotional and cognitive demands of triage work, and strategies to improve equity in telephone-based care.

The chapter ends with a synthesis of the study's contributions and a reflection on implications for positive social change. As telehealth continues to grow, a clearer understanding of how nurses navigate communication barriers in nonvisual environments may inform improvements in training, organizational processes, and patient-centered telephone triage services.

Interpretation of the Findings

The findings of this study extend existing knowledge by demonstrating how RNs assess clinical risk and regulate emotional tone during telephone triage encounters. The findings also show how nurses adapt language and sustain therapeutic engagement in these interactions. While prior research has identified communication barriers such as language differences, caller distress, cultural variation, and the absence of visual cues, fewer studies have examined how nurses adapt communication strategies moment to moment to manage these challenges in real time.

The findings indicate that nurse participants actively constructed therapeutic interactions through voice modulation, structured questioning, emotional regulation, and clinical judgment, rather than relying solely on standardized protocols. These adaptive behaviors reflect the interpersonal processes described in Peplau's (1991) theory of interpersonal relations, which emphasizes purposeful, empathetic communication to meet patient needs across evolving phases of care (see also Forchuk, 2021).

Development of Rapport Through Voice-Based Strategies

The findings indicate that rapport-building through voice-based strategies was foundational to effective communication in telephone triage. In the absence of visual

cues, nurses relied on vocal tone, warmth, and intentional reassurance to establish emotional safety and support accurate assessment. This interpretation is consistent with prior research demonstrating that voice-based communication plays a central role in telehealth encounters, particularly when visual information is unavailable (Eriksson et al., 2020; Gustafsson & Wahlberg, 2023).

Participants emphasized that creating a sense of emotional safety early in the interaction was essential for caller engagement and accurate assessment. Existing literature similarly identifies emotional safety as a prerequisite for caller engagement and accurate information exchange during telephone triage (Rysst Gustafsson & Eriksson, 2021). When callers perceive the nurse as calm and supportive, they are more likely to disclose relevant symptom information and participate actively in the assessment process.

Tone emerged as a central mechanism for establishing rapport and regulating emotional intensity during telephone triage encounters. Nurses described tone as an active clinical tool used to contain distress, support emotional regulation, and maintain focus on assessment rather than as a passive feature of communication. By intentionally modulating vocal delivery, nurses were able to de-escalate heightened emotions and support callers' cognitive processing during remote assessments. These findings align with studies demonstrating that vocal modulation helps reduce distress and supports effective clinical reasoning in nonvisual care environments (Holmström et al., 2022; Skogevall et al., 2020).

Participants also described warmth and openness as deliberate voice-based strategies. Prior research indicates that vocal affect, such as warmth, pacing, and

attentiveness, functions as a substitute for nonverbal communication in telephone-based care and contributes to callers' perceptions of empathy and professionalism (Eriksson et al., 2020; Gustafsson & Wahlberg, 2023).

Rapport-building was also linked to reassurance and role clarity. Participants described adopting a calming manner while explicitly positioning themselves as a source of help, using verbal reassurance to establish trust and shared purpose during the interaction. This approach aligns with the literature, which indicates that clear role framing and verbal reassurance support shared understanding and cooperation during triage interactions (Mattisson et al., 2023; Rysst Gustafsson & Eriksson, 2021).

From a theoretical perspective, these findings align with Peplau's orientation phase, during which nurses establish trust, reduce anxiety, and clarify roles within the therapeutic relationship. Participants enacted the nurse's role as counselor and resource person through voice-based behaviors that promoted emotional safety and engagement. By intentionally using tone, warmth, and reassurance, nurses use voice-based communication to create therapeutic interventions that support both relational connection and clinical accuracy.

Overall, the findings suggest that rapport-building through voice-based strategies is a core competency in telephone triage nursing. By using relational communication rather than relying solely on protocols, nurses compensated for the absence of visual cues and created conditions that supported accurate, patient-centered assessment and collaborative decision-making. This interpretation underscores the importance of training

and organizational support that recognize voice-based rapport as a critical clinical skill in telehealth nursing.

Navigation of Communication Barriers Through Adaptive Strategies

The findings suggested that nurses navigated communication barriers in telephone triage by adapting their communication strategies in real time rather than relying exclusively on standardized processes. Several nurses described changing their pacing, questioning style, and conversational focus to address caller confusion, language limitations, and emotional distress. These adaptations supported clarity and engagement when communication did not follow predictable clinical patterns. Prior research emphasizes that flexibility and professional judgment are essential for managing complexity in telephone-based assessments (Eriksson et al., 2020; Gustafsson & Wahlberg, 2023).

Participants frequently described adjusting their approach when callers appeared confused about why they had reached a nurse or how the triage process worked. Nurses noted that callers often arrived frustrated or disoriented, requiring them to shift away from routine procedural steps to reorient callers and clarify the purpose of the interaction. This finding aligns with literature indicating that role clarification and conversational grounding are necessary to reduce misunderstanding and support effective information exchange in telephone triage (Rysst Gustafsson & Eriksson, 2021).

Language-related barriers also required deliberate adaptation. Participants described slowing the pace of the interaction, asking callers to repeat or spell words, and using supplementary tools to support understanding. These strategies reflected practical

efforts to maintain assessment accuracy despite limited linguistic clarity. Consistent with prior research, such adaptations illustrate how nurses compensate for the absence of shared language through creative and resourceful communication practices (Plocienniczak et al., 2022; Watts et al., 2019).

Participants also described challenges when callers declined interpreter services despite evident language barriers. In these situations, nurses reported increased uncertainty and described relying on confirmation strategies, repetition, and end-of-call checks to reduce the risk of miscommunication. These practices align with literature highlighting the importance of redundancy and teach-back–style techniques to enhance clarity and safety in interpreter-mediated or linguistically complex encounters (Rysst Gustafsson & Eriksson, 2021).

Emotional distress further complicated communication and required adaptive responses. Participants described allowing callers to express emotion before redirecting the conversation toward assessment, noting that addressing emotion first helped restore focus and supported more coherent symptom descriptions. This approach reflects existing research suggesting that emotional containment and validation are necessary precursors to effective triage communication, particularly in high-stress or ambiguous situations (Holmström et al., 2022; Skogevall et al., 2020).

From a theoretical perspective, these adaptive strategies reflect Peplau's working phase, during which nurses respond dynamically to patient needs through counseling, teaching, and resource provision. Participants enacted these roles by adjusting communication in response to situational demands, thereby sustaining the therapeutic

relationship while advancing clinical goals. Rather than viewing barriers as disruptions, nurses treated them as signals requiring relational and cognitive flexibility.

Overall, the findings suggest that adaptive communication strategies are central to navigating barriers inherent in telephone triage. Consistent with existing literature, nurses used flexibility, clarification, and emotional responsiveness to preserve assessment accuracy and caller engagement. This interpretation underscores the importance of training and organizational policies that recognize adaptive communication as a core clinical skill in telehealth nursing practice.

Management of the Emotional and Cognitive Demands of Triage Communication

The findings indicated that managing the emotional and cognitive demands of telephone triage was a sustained and complex aspect of nurses' communication work. Participants described simultaneously regulating callers' emotional distress while maintaining cognitive focus on assessment, decision-making, and safety. This dual demand required deliberate emotional control, focused attention, and adaptive communication strategies to prevent escalation and support accurate clinical judgment. Prior research similarly identifies emotional labor and cognitive load as central challenges in telephone triage, particularly in voice-only encounters where information must be processed rapidly and without visual confirmation (Holmström et al., 2022; Skogevall et al., 2020).

Participants consistently described emotional distress as a factor that complicated assessment by disrupting callers' ability to communicate clearly. Nurses noted that emotional stabilization often needed to occur before effective information gathering

could proceed, as unmanaged distress increased cognitive complexity and required prioritization of emotional containment before structured questioning.

Participants also described managing their own emotional responses as essential to maintaining professionalism and assessment accuracy. Nurses reported intentionally regulating vocal expression to avoid conveying frustration or judgment, emphasizing the importance of treating callers' concerns as legitimate regardless of emotional intensity. This deliberate self-regulation reflects the emotional discipline required to sustain therapeutic communication in high-stress interactions. Existing literature supports this finding, noting that nurses' ability to regulate emotional expression reduces escalation and supports clearer cognitive processing during telephone-based assessments (Eriksson et al., 2020; Gustafsson & Wahlberg, 2023).

Participants further described strategies for managing emotional intensity, including allowing callers space to express distress, adopting a calming demeanor, and positioning themselves as relational mediators during difficult interactions. Nurses emphasized that acknowledging emotion before redirecting the conversation helped stabilize the interaction and facilitated more coherent symptom reporting. These approaches align with research indicating that emotional validation and containment support caller engagement and effective information exchange in telephone triage (Rysst Gustafsson & Eriksson, 2021)

Cognitive demands were compounded by the need to process emotional cues, assess symptom severity, and adhere to protocols simultaneously. Participants described relying on patience and internal regulation to sustain attention and judgment under

pressure. These findings are consistent with prior studies demonstrating that telephone triage requires sustained cognitive effort and increases the risk of mental fatigue, particularly during emotionally charged calls (Holmström et al., 2022).

From a theoretical perspective, these findings reflect Peplau's working phase, during which nurses help patients manage anxiety while engaging in problem-solving and decision-making. Participants enacted the nurse's role as counselor by stabilizing emotional distress and the role of resource person by maintaining assessment focus despite cognitive strain. This role integration enabled nurses to support callers therapeutically while ensuring that clinical priorities remained central.

Overall, the findings suggest that effective telephone triage depends on nurses' ability to manage emotional and cognitive demands concurrently. Consistent with existing literature, emotional regulation and cognitive control function as interdependent skills that support assessment accuracy, prevent escalation, and sustain therapeutic engagement. This interpretation underscores the importance of organizational recognition of the emotional and cognitive labor in telephone triage and highlights the need for training and support strategies that promote resilience and sustained clinical judgment in telehealth nursing roles.

Use of Clinical Judgment to Interpret Ambiguous and Culturally Influenced Symptom Descriptions

The findings suggested that nurses relied on clinical judgment to interpret ambiguous, indirect, or contextually and culturally shaped symptom descriptions. Participants described situations in which standardized protocols alone were insufficient

to capture the complexity of callers' presentations, requiring the integration of protocol guidance with experiential knowledge and situational awareness. This reliance on professional judgment aligns with prior literature, which emphasizes that triage accuracy depends on nurses' ability to interpret nuance when symptom descriptions do not align neatly with algorithmic pathways (Eriksson et al., 2020; Wouters et al., 2020b).

Participants described using protocols as safeguards rather than rigid scripts, emphasizing that structured questioning supported comprehensive assessment even when symptom presentations were unclear. Nurses balanced adherence to standardized tools with critical evaluation of their relevance to the specific clinical context, rather than following scripts rigidly. Similar findings in the literature caution against overreliance on decision-support systems when clinical context requires interpretive flexibility (Spek et al., 2023).

Clinical judgment was also informed by vocal cues that signaled urgency, distress, or uncertainty. Participants described listening closely to tone, pacing, and verbosity to supplement symptom content, using paralinguistic information to guide assessment when symptom descriptions alone were insufficient. This interpretive listening allowed nurses to detect risk indicators that were not explicitly stated, particularly when callers used non-clinical or culturally influenced language. Prior research similarly identifies paralinguistic cues as critical sources of information in telephone triage, compensating for the absence of visual assessment (Gustafsson & Wahlberg, 2023).

Participants further described anticipatory reasoning as part of their judgment process. Allowing callers to speak freely early in the interaction provided insight into how the call might unfold and what level of guidance would be required. This early appraisal enabled nurses to adjust questioning strategies and cognitive focus in response to initial cues, supporting more accurate assessment when symptom narratives were fragmented or indirect. Such anticipatory judgment has been identified in prior studies as a hallmark of expert triage practice, particularly in complex or uncertain encounters (Eriksson et al., 2020).

From a theoretical perspective, these practices align with Peplau's working phase, in which nurses integrate assessment, problem-solving, and therapeutic engagement. Participants enacted the nurse's role as a resource person by synthesizing protocol guidance with experiential knowledge and contextual interpretation. Rather than viewing ambiguity as a barrier, nurses treated it as a signal requiring heightened attentiveness and professional judgment.

Overall, the findings suggest that clinical judgment grounded in interpretive listening and contextual awareness is essential for managing ambiguity in telephone triage. Consistent with existing literature, nurses used judgment to bridge gaps between standardized tools and real-world caller presentations, particularly when cultural communication styles or indirect language complicated assessment. This interpretation underscores the continued importance of professional reasoning in telehealth environments where safety depends on nurses' ability to interpret meaning beyond scripted criteria.

Prioritization of Caller Safety Through Clinical Decision-Making

The findings indicate that prioritization of caller safety was a central organizing principle underlying nurses' communication strategy during telephone triage. Across themes, participants described orienting their assessments toward risk identification, escalation, and clear disposition, particularly in situations involving uncertainty, emotional distress, or incomplete information.

Nurses emphasized the importance of verifying understanding, reinforcing recommendations, and providing explicit guidance when symptoms suggested potential urgency. These practices were described as essential in the absence of visual cues, where misinterpretation carried heightened risk. Consistent with prior research, participants relied on structured questioning and conservative decision-making to protect caller safety when symptom presentations were ambiguous or communication barriers were present (Eriksson et al., 2020; Mattisson et al., 2023).

From a theoretical perspective, prioritizing safety aligns with Peplau's working and termination phases, during which nurses assume responsibility for problem resolution, education, and the transition of care. Participants enacted the nurse's role as a leader and resource person by guiding callers to appropriate levels of care, including escalating to emergency services when indicated. Rather than viewing escalation as a failure of communication, nurses framed these decisions as a core component of ethical and professional triage practice.

Limitations of the Study

Several limitations should be considered when interpreting the results of this study. First, although recruitment materials were distributed broadly through social media platforms, all participants who volunteered for the study worked within the same health care system. The shared organizational affiliation was not an intended recruitment criterion and emerged unintentionally through voluntary participation. As a result, the findings reflect one organizational approach to telephone triage, limiting their transferability to other health care systems, geographic regions, or models of telephone triage.

Second, I used a qualitative interpretive description design with a small purposive sample of RNs who had recent experience in telephone triage. This design supported an in-depth exploration of participants' experiences; however, the sample size and sampling approach further limit transferability. Qualitative interpretive description studies prioritize depth over breadth and do not aim for statistical generalization (Thorne, 2016). The findings represent the perspectives of the participating nurses within their specific practice contexts rather than reflecting the experiences of all telephone triage nurses.

Third, data collection relies on self-reported interviews, which are subject to recall bias and selective memory. Participants may have emphasized specific experiences or omitted others based on personal interpretation or comfort with disclosure. To address this limitation, I used a consistent semistructured interview guide and invited participants to describe specific examples from practice. Despite these efforts, the data reflect participants' recollections rather than direct observation of triage encounters.

Fourth, the study included only nurses' perspectives and did not incorporate the views of callers, caregivers, or other health care professionals involved in telephone triage. Including multiple stakeholder perspectives is commonly recommended in qualitative health research to strengthen contextual understanding and analytic depth (Creswell & Poth, 2023; Lincoln & Guba, 1985). The absence of multiple perspectives limits examination of communication processes from a broader interactional standpoint and restricts understanding of how communication strategies are perceived by others involved in triage encounters.

Finally, recruitment through social media platforms may have introduced self-selection bias. Nurses who chose to participate may have had a particular interest in communication or greater comfort reflecting on their experiences. Additionally, my professional background as an RN with experience in telephone triage may have influenced my interpretation of the data. Although this background supported contextual understanding, it also introduced the potential for researcher bias. I addressed this limitation through reflexive journaling, bracketing assumptions, and maintaining an audit trail that documented analytic decisions. These strategies enhanced transparency; however, some degree of subjectivity remains inherent in qualitative research.

Recommendations

Based on participants' descriptions of communication challenges and adaptive strategies in telephone triage, several recommendations emerge for nursing practice, organizational policy, education, and future research.

Recommendations for Practice

Health care organizational leaders should support telephone triage nurses in integrating relational communication with clinical decision-making. Participants described using tone modulation, pacing, and direct yet empathetic language to support caller understanding and safety, particularly during high-risk or emotionally charged calls. Practice guidelines should explicitly recognize these communication behaviors as essential clinical skills rather than optional interpersonal techniques. Explicit recognition of these behaviors in triage standards may support consistency while preserving professional judgment.

Organizations should also ensure that nurses have access to professional interpretation services during telephone triage encounters. Participants described challenges when callers relied on family members or caregivers to relay information, particularly in culturally and linguistically diverse situations. Providing timely access to trained interpreters may reduce miscommunication, support equity, and enhance assessment accuracy.

Recommendations for Organizational Policy

Leaders of health care systems should evaluate triage protocols to ensure sufficient flexibility for nurses to respond to complex communication scenarios. Participants described situations in which rigid algorithms limited their ability to address ambiguity, cultural variation, or emotional distress. Protocols that allow nurses to document contextual judgment and narrative interpretation alongside algorithmic decision points may better reflect real-world triage practice.

Organizational leaders should also address the emotional and cognitive demands of telephone triage through structural support. Participants described managing emotional regulation and clinical reasoning simultaneously, often under time pressure. Administrators may consider staffing models, call-volume expectations, and scheduled recovery time that acknowledge these demands. Formal debriefing opportunities and access to peers or supervisory support may further reduce emotional strain and communication fatigue.

Recommendations for Education and Training

Nursing education programs and employer-based training should incorporate communication-focused preparation specifically for telephone triage. Participants emphasized that effective triage communication required skills beyond protocol navigation, including managing caller emotions, interpreting indirect symptom descriptions, and navigating cultural differences. Simulation-based training that includes high-distress scenarios, interpreter-mediated calls, and triadic communication may strengthen nurses' readiness to address these challenges.

Continuing education should also address implicit bias, cultural humility, and gender-related communication patterns. Participants described adapting communication strategies based on callers' cultural norms and expressions of illness. Structured reflection and case-based learning may help nurses examine assumptions and strengthen equitable communication practices in remote care settings.

Recommendations for Future Research

Future research should include multiple perspectives to deepen the understanding of communication dynamics in telephone triage. Studies incorporating caller, caregiver, or interpreter perspectives may provide insight into how nurses' communication strategies are received and understood. Observational or call-recording studies, when ethically feasible, may also support examination of communication processes in real time. Researchers are encouraged to explore organizational and system-level factors that shape communication practices, such as workload expectations, performance metrics, and protocol design. Comparative studies across different triage models or health care systems could further clarify how contextual factors influence nurses' communication strategies and decision-making processes.

Implications

Telephone triage plays a critical role in shaping access to health care, particularly for individuals who rely on remote services due to geographic distance, limited mobility, socioeconomic constraints, or a lack of local health care resources. The experiences described by nurse participants highlight how communication practices in telephone triage can either reduce or reinforce disparities in access, understanding, and safety. Supporting nurses in delivering clear, culturally responsive, and emotionally attuned communication has implications for positive social change at the individual, organizational, and system levels.

At the individual level, effective communication during telephone triage supports caller understanding, shared decision-making, and timely access to appropriate care.

Nurse participants described using adaptive communication strategies to support callers experiencing emotional distress, limited health literacy, or language barriers. When nurses use relational communication alongside clinical judgment, callers may feel heard, respected, and empowered to follow care recommendations. These practices may reduce misunderstandings, prevent delays in treatment, and improve safety for individuals from historically underserved or marginalized populations.

At the organizational level, acknowledging communication as a core component of clinical safety may contribute to more equitable telehealth delivery. Nurse participants described navigating complex emotional and cultural dynamics while balancing protocol requirements and workload pressures. Organizations that provide structural support, such as flexible triage protocols, access to professional interpreters, and opportunities for debriefing, may reduce communication-related errors and support consistent, person-centered care. Such support may also improve nurses' well-being, reduce burnout, and strengthen workforce retention, thereby indirectly benefiting patient populations through continuity and quality of care.

At the system level, strengthening communication practices in telephone triage may help address broader health inequities. Remote care services often serve populations who face barriers to in-person health care, including rural residents, individuals with limited transportation, and those with LEP. Ensuring that triage systems support culturally responsive communication and equitable decision-making may reduce disparities in emergency referrals, treatment delays, and unmet care needs. By supporting nurses' ability to interpret diverse symptom presentations and respond effectively to

uncertainty, health care systems may improve access and safety across diverse communities.

Together, these implications emphasize that communication in telephone triage extends beyond individual interactions and contributes to broader social outcomes. Supporting nurses through education, policy, and organizational structures may promote equitable access to care, enhance patient safety, and strengthen trust in telehealth services. These efforts align with Walden University's mission to advance positive social change by improving health care practices that serve diverse populations and promote health equity in evolving care environments.

Conclusion

In this qualitative interpretive description study, I explored how RNs experienced and navigated communication challenges during telephone triage. Through analysis of participant interviews, I examined how nurses managed the absence of visual cues, addressed language and cultural differences, regulated emotional and cognitive demands, interpreted ambiguous symptom descriptions, and prioritized caller safety in remote care settings. Peplau's theory of interpersonal relations provided a guiding framework for understanding how nurses enacted relational roles through voice-based communication during triage encounters.

Nurse participants described communication as central to safe and effective telephone triage practice. Participants emphasized the importance of rapport-building, adaptive communication strategies, emotional regulation, and clinical judgment when assessing callers who are distressed, uncertain, or have difficulty articulating symptoms.

Rather than relying solely on standardized protocols, nurses described integrating relational communication with professional judgment to support clarity, understanding, and safety. These accounts highlight the complexity of triage work and the skilled communication required to deliver person-centered care in nonvisual environments.

In this chapter, I addressed the interpretation of participants' experiences, identified limitations in the design and scope, and presented recommendations for practice, policy, education, and future research. The discussion emphasized that communication in telephone triage involves relational, emotional, and ethical dimensions that extend beyond algorithmic decision-making. Addressing these dimensions requires organizational recognition of communication as a core clinical competency and the provision of structural support for nurses who manage high-stakes interactions remotely.

The implications for positive social change underscore the role of communication in promoting equitable access to care, particularly for individuals who rely on telehealth due to geographic, linguistic, or socioeconomic barriers. Supporting nurses in delivering culturally responsive, emotionally attuned, and clinically sound communication may reduce disparities, strengthen patient trust, and enhance safety in telehealth systems. Attention to nurse well-being and workload sustainability further supports the long-term effectiveness of telephone triage services. As telehealth continues to expand, understanding nurses' communication experiences remains essential for improving remote care delivery. By centering nurses' perspectives, this study contributes to nursing knowledge, informs practice improvement, and supports the development of

communication strategies that promote safety, equity, and person-centered care in telephone triage settings.

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Appendix A: Recruitment Flyer

YOU ARE INVITED TO SHARE YOUR VIEWS FOR A STUDY TITLED: COMMUNICATION CHALLENGES EXPERIENCES BY TELEPHONE TRIAGE REGISTERED NURSES PROVIDING ASSESSMENT OF HEALTH SYMPTOMS.

- **ONE 40–60-MINUTE INTERVIEW THAT WILL BE AUDIORECORDED (NO VIDEORECORDING)**
- **TO PROTECT YOUR PRIVACY, THE PUBLISHED STUDY WILL NOT SHARE ANY NAMES OR DETAILS THAT IDENTIFY YOU**

INTERVIEWS WILL TAKE PLACE IN AUGUST, SEPTEMBER, AND OCTOBER.

Volunteers must meet these requirements:

- Registered Nurses who have worked in telephone triage in the last 6 months
- One year of nurse telephone triage experience

Appendix B: Screening Questionnaire

Screening Questionnaire for Participant Eligibility

Thank you for your interest in participating in this research study. The purpose of this brief questionnaire is to determine whether you meet the inclusion criteria for participation in a qualitative research study exploring how registered nurses experience communication challenges in telephone triage settings.

1. Are you at least 18 years of age?
2. Are you currently licensed as a Registered Nurse (RN) in the United States?
3. Do you have at least one year of experience providing telephone triage care (e.g., nurse advice line, nurse call center, or health system-based triage)?
4. Are you currently working in a telephone triage role, or have you done so within the past six months?

Appendix C: Demographic Questionnaire

Demographic Questionnaire

Please respond to the following questions. All information will be kept confidential and used only for research purposes.

1. **Age:**

   ☐ 21–30

   ☐ 31–40

   ☐ 41–50

   ☐ 51–60

   ☐ 61 or older

2. **Gender:**

   ☐ Female

   ☐ Male

   ☐ Non-binary

   ☐ Prefer not to say

   ☐ Other (please specify): _____________

3. **Ethnicity (select all that apply):**

☐ African American / Black

☐ Asian / Asian American

☐ Hispanic / Latino/a/x

☐ Native American / Alaska Native

☐ Native Hawaiian / Other Pacific Islander

☐ White / Caucasian

☐ Prefer not to say

☐ Other (please specify): _______________

4. **Highest level of nursing education completed:**

☐ Associate Degree in Nursing (ADN)

☐ Bachelor of Science in Nursing (BSN)

☐ Master of Science in Nursing (MSN)

☐ Doctor of Nursing Practice (DNP)

☐ PhD in Nursing

☐ Other (please specify): ________________

5. **Total years of nursing experience:**

☐ 1–5 years

☐ 6–10 years

☐ 11–15 years

☐ 16–20 years

☐ More than 20 years

6. **Years of experience in telephone triage nursing:**

☐ 1–2 years

☐ 3–5 years

☐ 6–10 years

☐ More than 10 years

7. **Current employment status in telephone triage:**

☐ Currently practicing

☐ Practiced within the last 6 months

☐ No longer practicing (exclusion criteria)

8. **Region of practice:**

☐ Northeast

☐ Midwest

☐ South

☐ West

☐ U.S. territory

☐ Other (please specify): _______________

Appendix D: Interview Guide

Interview Guide

Before we begin, I would like to confirm that you have reviewed and understood the informed consent form. Do you voluntarily agree to participate in this recorded interview?

1. Tell me about your current role in telephone triage.

   Follow-up: What types of calls do you typically handle?

2. How would you describe your usual approach to communicating with callers in triage situations?

   Follow-up: What helps you establish rapport or connection during a call?

Section 2: Communication Barriers and Adaptation

3. Tell me about a time when communicating with a caller was especially challenging.

   Follow-up: What happened, and how did you respond?

4. What communication challenges do you encounter most often during telephone triage?

   Follow-up: How do language, emotion, or cultural differences show up in these calls?

5. How do you respond when a caller becomes upset, anxious, or confused during a call?

   Follow-up: What strategies help you manage those emotions while continuing the assessment?

6. How do you communicate with callers who speak limited English or use interpreters?

   Follow-up: What impact does the interpreter have on your interaction with the caller?

7. What strategies help you understand and respond to callers from culturally diverse backgrounds?

   Follow-up: How do you navigate different ways of describing symptoms or expressing needs?

Section 3: Nurse Roles and Therapeutic Communication

8. How do you view your role as a nurse during telephone triage interactions?

   Follow-up: What communication roles do you take on—such as educator, counselor, or advocate?

9. What helps you build trust with callers when you rely only on your voice?

   Follow-up: How do you know when you have successfully connected with a caller?

10. How do you evaluate whether your communication was effective during a triage call?

    Follow-up: What signs or outcomes indicate understanding and safety?

Section 4: Reflection and Closing

11. How has your communication style changed as you have gained experience in telephone triage?

    Follow-up: What have you learned that now shapes how you interact with callers?

12. What training or support has helped you improve your communication with callers?

    Follow-up: How could organizations better prepare nurses for this aspect of the role?

13. What else do you want educators, researchers, or healthcare leaders to know about communication in telephone triage?

Thank you for your time and for sharing your experiences. If you have any questions following this conversation, please don't hesitate to contact me. Your insights are very valuable to this research.

Appendix E: Field Notes

Field Notes Form

Participant ID: ___________

Date of Interview: ___________

Time: ___________

Interview Mode (Zoom/Phone/Other): ___________

Interviewer: ___________

Field Observation & Reflective Notes by Question

1. Current or recent experience in telephone triage

Observations:

Researcher reflections:

Connection to Theory:

2. Opening the call: trust and rapport

Observations:

Reflections:

Connection to Theory:

3. Language barriers

Observations:

Reflections:

4. Emotional distress

Observations:

Reflections:

Connection to Theory:

5. Cultural differences and adaptation

Observations:

Reflections:

Connection to Theory:

6. Gender-based communication differences

Observations:

Reflections:

Connection to Theory:

7. Gathering information without visual cues

Observations:

Reflections:

Connection to Theory:

8. Instructions and reassurance

Observations:

Reflections:

Connection to Theory:

9. Closing the call

Observations:

Reflections:

Connection to Theory:

10. Organizational or system-level influences

Observations:

Reflections:

Connection to Theory:

11. Tools, training, and resources

Observations:

Reflections:

Connection to Theory:

Appendix F: Codebook

Code label	Operational definition
Absence of visual cues	Nurses’ experiences assessing symptoms and emotional states without access to facial expression, body language, or physical examination
Vocal cues as assessment data	Use of tone, pacing, breath sounds, pauses, or vocal strain to interpret symptom severity or emotional distress
Caller's emotional distress	Situations in which fear, anxiety, anger, or panic interfered with symptom description or triage flow
Emotional regulation by nurses	Nurses’ intentional efforts to remain calm, grounded, and therapeutic during emotionally charged calls
Language barriers	Challenges related to limited English proficiency, misunderstood terminology, or constrained vocabulary affect assessment accuracy.
Interpreter-mediated communication	Communication dynamics and disruptions are introduced when working through professional or informal interpreters.
Cultural expressions of illness	Variations in how callers describe symptoms were influenced by cultural beliefs, norms, or explanatory models of illness
Gendered communication patterns	Differences in symptom reporting, engagement, or interaction style associated with caller gender or gender expectations
Structured questioning	Use of protocol-driven or systematic questioning to elicit clinically relevant information
Clarification and reframing	Nurses’ strategies for restating, simplifying, or reframing questions to improve understanding
Teach-back and confirmation	Techniques used to verify the caller's understanding of instructions, advice, or next steps
Balancing of protocol and judgment	Tension between adherence to decision-support algorithms and nurses’ clinical reasoning
Triadic communication	Complex interactions involving caregivers or family members speaking on behalf of the patient
Establishment of telenursing presence	Efforts to convey empathy, attentiveness, and professionalism through voice alone
Cognitive load and fatigue	Mental effort and exhaustion associated with sustained high-stakes verbal assessment