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Community Health Nurses' Experiences in Managing Vaccine Hesitancy: A Descriptive Phenomenological Study

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Abstract

Aim

This study aimed to explore the experiences of community health nurses in addressing vaccine hesitancy and to examine their perceptions of their professional roles using a phenomenological approach.

Methods

A descriptive phenomenological design was employed. The study sample comprised 20 community health nurses working in Family Health Centers in Muş, Türkiye, selected through purposive sampling. Data were collected between December 2025 and February 2026 via semi-structured, in-depth interviews. The data were analyzed following Colaizzi's phenomenological method. The principle of epoche was maintained throughout the research process. The study adhered to the COREQ reporting guidelines, and ethical approval was obtained.

Results

Four main themes emerged from the analysis: the social construction of vaccine hesitancy, the invisible burden of the communication process, structural barriers encountered in the field, and the reconstruction of professional empowerment. The findings suggest that vaccine hesitancy is largely shaped by misinformation or incomplete information disseminated through social media, concerns about potential side effects, and social influences. Nurses reported adopting trust-based, empathetic, and individualized communication strategies; however, time constraints, heavy workload, and insufficient institutional support were identified as key structural barriers limiting the effectiveness of these strategies.

Conclusion

Community health nurses play a pivotal role as trusted sources of information and as a bridge between the community and the healthcare system in addressing vaccine hesitancy. The findings underscore the need for practice-oriented, needs-based training programs to enhance nurses' communication competencies, as well as for strengthening institutional support mechanisms.

Introduction

Vaccination is recognized as one of the most effective and cost-efficient interventions in modern public health, contributing to the prevention of millions of deaths and disabilities each year [1]. The eradication of smallpox and the substantial reductions in diseases such as measles and diphtheria achieved through childhood immunization programs clearly demonstrate the transformative impact of vaccination on

population health [2]. However, in recent years, vaccine hesitancy—defined as the delay in acceptance or refusal of vaccines despite availability—has emerged as a growing global public health concern, threatening the sustainability of immunization programs. The World Health Organization identifies vaccine hesitancy as one of the major barriers to achieving global immunization targets [3, 4]. Vaccine hesitancy extends beyond a mere lack of knowledge; rather, it is shaped by the complex interplay of multiple factors, including exposure to misinformation, concerns regarding vaccine safety and potential side effects, conspiracy beliefs, political discourse, cultural value systems, and levels of trust in healthcare systems [4, 5]. Particularly in the post-COVID-19 period, the widespread dissemination of misinformation through social media and digital platforms has reshaped individuals' risk perceptions. The tension between scientific evidence and emotionally driven narratives has significantly undermined public confidence in vaccines [1]. In this context, vaccine hesitancy should be understood not merely as an individual choice, but as a phenomenon produced within the information ecosystem of the digital age and reinforced by broader social and political dynamics. Within this multifaceted process, nurses working in community health centers occupy a critical position in addressing vaccine hesitancy. Beyond serving as providers of technical information, nurses emerge as key stakeholders who build trust, make sense of individuals' concerns, and holistically assume roles of guidance and advocacy [6, 7]. As the primary implementers of immunization services, nurses are in direct interaction with individuals' decision-making processes and often represent the most visible interface between the healthcare system and the community [8]. The existing literature indicates that research on vaccine hesitancy has predominantly focused on individuals' knowledge levels, attitudes, and behavioral intentions, whereas the experiences of frontline healthcare professionals have received comparatively limited attention [9, 10]. However, the experiences of practitioners play a crucial role in determining the extent to which policies and interventions align with real-world practice. In this regard, examining the lived experiences of community health nurses and the meanings they attribute to these experiences may contribute to enhancing both the feasibility and sustainability of strategies aimed at addressing vaccine hesitancy [11]. Accordingly, this study aims to explore the experiences, perceptions, and professional role interpretations of nurses working in community health centers in the context of encountering vaccine hesitancy, using a phenomenological approach. The phenomenological method enables an in-depth examination of individuals' lived experiences from their own perspectives, thereby providing insight into how nurses experience and make sense of vaccine hesitancy in their professional practice.

Methods

Study Design

This study was conducted using a descriptive phenomenological research design to explore in depth the experiences of nurses working in community health centers in managing vaccine hesitancy. The phenomenological approach is a qualitative research method that seeks to understand individuals' lived experiences and the meanings they attribute to a particular phenomenon from their own perspectives

[12]. The research process was structured and reported in accordance with the COREQ (Consolidated Criteria for Reporting Qualitative Research) guidelines.

Setting and Participants

The study was carried out in Family Health Centers providing primary healthcare services in Muş, a province located in eastern Türkiye. Nurses working in these centers constituted the study population. The research setting was considered appropriate due to the routine implementation of immunization services within primary healthcare. Participants were selected using purposive sampling, which aims to obtain rich and meaningful data in phenomenological research [13]. The inclusion criteria were as follows: having at least one year of work experience in a Family Health Center, being actively involved in vaccination or immunization services, having professional interaction with individuals or parents experiencing vaccine hesitancy, and voluntarily agreeing to participate in the study. Within the scope of the study, in-depth individual interviews were conducted with 20 nurses. The sample size was determined based on the principle of data saturation, and data collection was terminated when no new themes emerged [12]. The participants varied in terms of age, professional experience, educational background, and work setting, which enabled the inclusion of diverse perspectives and contributed to the richness of the findings.

Data Collection Instruments

Personal Information Form

This form was developed by the researchers based on a review of the relevant literature. It was designed to obtain participants' basic sociodemographic characteristics, including age, educational level, years of professional experience, and the unit of employment. The purpose of this form was to collect descriptive data necessary to better understand the personal and social context of each participant's experiences.

Semi-Structured Interview Form

A semi-structured interview form developed by the researchers was used as the primary data collection tool. The interview guide was prepared based on a comprehensive review of the literature and aimed to explore community health nurses' experiences with vaccine hesitancy, the communication strategies they employ, the challenges they encounter, and their educational needs in this area. The interview form was evaluated in terms of scope and content by two academic experts in community health and immunization, and necessary revisions were made in line with their feedback. The interview guide consisted of four main domains: (1) experiences and perceptions, (2) encountered barriers, (3) training and support needs, and (4) overall evaluation. The "experiences and perceptions" domain addressed participants' encounters with vaccine hesitancy in the community, the methods they use when communicating with hesitant individuals, and their evaluations of the effectiveness of these methods.

The “encountered barriers” domain explored the main difficulties faced during the process of addressing vaccine hesitancy, as well as the impact of institutional and individual barriers on their practice. The “training and support needs” domain examined participants’ views on the adequacy of their education in vaccine communication and counseling, along with the additional training or support they require. Finally, the “overall evaluation” domain focused on participants’ perspectives regarding the role of community health nurses in addressing vaccine hesitancy. During the interviews, probing and clarifying questions were asked when necessary to enable participants to elaborate on their experiences in greater depth. This approach facilitated a more comprehensive understanding of their experiences and perceptions.

Data Collection Procedure

Data were collected through semi-structured, in-depth interviews conducted in accordance with an interview guide developed by the researchers. The semi-structured interview method is widely used in phenomenological research, as it allows participants to express their experiences in their own words and supports the generation of rich, detailed data [13]. The interview guide was developed based on an extensive review of the literature and was evaluated for content validity by two academic experts in community health and immunization. To assess the clarity and feasibility of the interview questions, pilot interviews were conducted with two nurses who were not included in the main study. Minor revisions were made following the pilot testing, and data obtained from the pilot interviews were not included in the analysis. The data collection process was carried out between December 2025 and February 2026, and each interview lasted approximately 45–60 minutes. Written informed consent was obtained from all participants, and the interviews were audio-recorded. The recordings were transcribed verbatim for analysis. All interviews were conducted in quiet and appropriate settings to ensure participants’ privacy and confidentiality.

The semi-structured interview guide used in this study was specifically developed by the researchers and has not been previously published. The development process was informed by a comprehensive review of the literature. The guide was reviewed by two academic experts in community health and immunization, and revised accordingly. The final version of the interview guide is provided as Supplementary Material 1.

Researcher Role and Reflexivity

In qualitative research, the researcher’s position and influence on the research process are considered integral to data generation and interpretation [14]. In this study, the research team consisted of three researchers, one with academic expertise in public health nursing and two in obstetrics and gynecology nursing. The researchers’ professional background and field experience in nursing contributed to a deeper understanding of participants’ experiences within the context of vaccine hesitancy and immunization services. However, the potential for bias arising from their professional backgrounds was also acknowledged. At the outset of the study, the researchers explicitly identified their potential preconceptions, including the assumption that vaccine hesitancy may be associated with

misinformation or lack of knowledge, and that empathetic communication may enhance vaccine acceptance. To minimize the influence of these assumptions during data collection and analysis, the principle of epoche (bracketing), as recommended in phenomenological research, was applied [15, 12]. In this context, particular attention was paid to participant statements that did not align with researchers' assumptions, and themes were developed strictly based on participants' narratives.

There was no prior hierarchical relationship between the researchers and the participants, which likely facilitated more open and comfortable expression of experiences and opinions. Additionally, throughout the data collection and analysis process, researchers maintained reflective notes and a research diary to document their thoughts, assumptions, and emotional responses, thereby preserving the distinction between data and interpretation. This practice contributed to the systematic monitoring of reflexivity and strengthened the methodological rigor and credibility of the study .

Data Analysis

Data were analyzed using Colaizzi's descriptive phenomenological method [16]. The analysis process was structured according to the systematic steps of the phenomenological approach. In the first stage, audio recordings of the interviews were transcribed verbatim and repeatedly read by the researchers to achieve familiarity with the data. During this process, the overall context and underlying meanings of participants' narratives were examined holistically. In the second stage, significant statements directly related to the research aim were identified from the transcripts. These included expressions reflecting community health nurses' experiences with vaccine hesitancy, their coping strategies, the challenges they encountered, and their educational needs. These statements were then interpreted and transformed into conceptual codes. In the third stage, the codes were grouped into sub-themes based on similarities and differences, and subsequently organized into higher-level themes. Throughout the coding and theme development process, continuous comparison among researchers was conducted to ensure analytical consistency, and a consensus-based approach was adopted. The analysis was carried out iteratively and comparatively to enhance reliability. In the fourth stage, the themes were integrated into a comprehensive structure to develop an exhaustive description of the phenomenon under study. This process enabled the identification of the essential structure of participants' experiences. To ensure the validity of the findings, the derived themes and interpretations were shared with participants, and necessary revisions were made based on their feedback. The reporting of the study followed the COREQ (Consolidated Criteria for Reporting Qualitative Research) guidelines [17], aiming to enhance transparency, rigor, and methodological integrity.

Trustworthiness

To ensure scientific rigor, the study was evaluated according to the criteria of credibility, transferability, dependability, and confirmability, as recommended for qualitative research [14].

- **Credibility**: Member checking was conducted with selected participants to enhance the trustworthiness of the findings. Themes and interpretations were reviewed based on participant

feedback. Additionally, the analysis process was examined by experienced qualitative researchers, and expert opinions were obtained.

- **Transferability**: The research context, participant characteristics, and data collection process were described in detail to enable readers to assess the applicability of the findings to other contexts.
- **Dependability**: The research process was reported in a detailed and transparent manner. Data analysis was conducted by multiple researchers, and consensus was achieved during the coding process.
- **Confirmability**: The findings were supported by direct participant quotations. To minimize researcher bias, a reflective journal was maintained, ensuring that the results were grounded in the data and could be traced transparently.

Researcher Reflexivity

Throughout the research process, the researchers adopted a reflexive approach by acknowledging the potential influence of their professional experiences and preconceptions on data interpretation. The study was conducted by three researchers with expertise in public health nursing and obstetrics and gynecology nursing. To minimize researcher bias, the bracketing approach recommended in phenomenological research was applied. Reflective notes were maintained during data collection and analysis, and the analytic process was regularly discussed within the research team. This approach was used as a strategy to enhance the credibility and rigor of the findings [12, 18].

Ethical Considerations

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki. Ethical approval was obtained from the Scientific Research and Publication Ethics Committee of Muş Alparslan University (Decision No: 218926, Date: 07 November 2025). In addition, the necessary institutional permissions were obtained from the relevant healthcare authorities.

Participation in the study was voluntary, and participants were provided with detailed information regarding the aim, scope, and procedures of the study. It was clearly stated that participants could withdraw from the study at any stage without any consequences. Written and verbal informed consent was obtained from all participants. In addition, explicit consent was obtained for audio recording of the interviews.

Results

A total of 20 community health nurses participated in the study. Examination of the age distribution indicated that the largest group was aged 40–44 years (35%, n = 7), followed by those aged 35–39 years (20%, n = 4). Other age groups were represented at lower proportions: 25–29 years (15%, n = 3), 30–34 years (15%, n = 3), and 45 years and above (15%, n = 3). In terms of gender, all participants were female (100%, n = 20). Regarding educational level, the majority of participants held a bachelor’s degree (95%, n

= 19), while only one participant had a high school diploma (5%, n = 1). When the duration of work experience in community health centers was examined, the highest proportion consisted of those with 4–6 years of experience (35%, n = 7), followed by those with 1–3 years of experience (25%, n = 5). Participants with 7–9 years (20%, n = 4) and those with 10 years or more of experience (20%, n = 4) were represented equally. All participants were working in Family Medicine Units (100%, n = 20). These findings indicate that the sample largely consisted of community health nurses with undergraduate-level education, varying years of professional experience, and active roles in primary healthcare settings (Table 1).

Table 1
Sociodemographic Characteristics of Participants (n = 20)

Variable	Category	n	(%)
Age (years)	25–29	3	15
	30–34	3	15
	35–39	4	20
	40–44	7	35
	≥ 45	3	15
Gender	Female	20	100
Educational Level	High School	1	5
	Bachelor's Degree	19	95
Years of Service in Public Health Centers	1–3 years	5	25
	4–6 years	7	35
	7–9 years	4	20
	≥ 10 years	4	20
Unit of Employment	Family Medicine Unit	20	100

Note: Percentages are calculated based on the total number of participants (n = 20).

Theme 1. The Social Construction of Vaccine Hesitancy: Misinformation, Fear, and Distrust

This theme reveals that, according to community health nurses' experiences, vaccine hesitancy is not merely the outcome of an individual decision-making process, but rather a multidimensional phenomenon shaped by misinformation, perceived risks, and the broader social context. Participants described vaccine hesitancy as a complex process emerging at the intersection of digital information environments, concerns about side effects, and dynamics of social distrust. One of the most prominent

elements in participants' narratives was the pervasive influence of social media and misinformation. Participants emphasized that unverified or exaggerated information disseminated through social media significantly shapes individuals' perceptions of vaccines, with these platforms serving as environments where doubt regarding vaccine safety can rapidly spread.

"I think the biggest reason for vaccine hesitancy in society is misinformation circulating on social media." (P1) "People who use social media very actively tend to have more doubts about vaccines." (P18) Another key factor contributing to vaccine hesitancy was identified as fear of potential side effects. Participants noted that narratives and shared experiences regarding adverse effects generate considerable anxiety within the community. "Many people expressed serious concerns about vaccine side effects. Information they hear from others or see on social media further amplifies these concerns." (P5) "Some individuals are highly influenced by stories about side effects after vaccination. When they hear such things, they naturally become fearful and hesitant." (P15) (Table 2).

Table 2
Main themes, subthemes, and representative participant quotations derived from the phenomenological analysis

Main Theme	Subthemes	Brief Description	Representative Participant Quotations
Theme 1. Sources of Vaccine Hesitancy: Misinformation, Fear, and Societal Context	**1.1. Social Media and Misinformation**	Participants frequently emphasized the role of social media as a major source of misinformation about vaccines. According to the nurses, inaccurate or exaggerated information circulating online often contributes to increased hesitation and uncertainty among community members.	“One of the main reasons for vaccine hesitancy in society is the misinformation circulating on social media. When people see these posts, they often begin to question vaccines.” (P1) “Vaccine hesitancy seems to be more common among people who actively use social media, because the information they encounter online can influence their decisions.” (P18)
	1.2. Fear of Side Effects	Concerns about possible vaccine side effects emerged as one of the most common reasons for vaccine hesitancy. Participants noted that stories heard from others or information encountered online may amplify these fears.	“Many people who come to us express serious concerns about vaccine side effects. What they hear from others or see on social media often increases these worries.” (P5) “Stories about side effects after vaccination can make people quite anxious, and this sometimes leads them to hesitate about getting vaccinated.” (P15)
	1.3. Cultural and Societal Influences	Participants indicated that attitudes toward vaccination are also shaped by cultural norms, community dynamics, and broader social contexts. In certain communities, particularly rural areas, vaccines may be approached with greater caution.	“In rural areas, people tend to approach vaccines more cautiously. They usually ask more questions and sometimes need more time before making a decision.” (P16) “Social polarization can also make this process more difficult, because people sometimes interpret health issues through their social or political perspectives.” (P20)

Main Theme	Subthemes	Brief Description	Representative Participant Quotations
Theme 2. Communication as a Relational Process: Trust, Empathy, and Tailored Dialogue	**2.1. Empathetic and Non-Judgmental Communication**	Participants highlighted that individuals are more willing to discuss vaccination when they feel understood and respected. Empathy and attentive listening were described as essential elements of effective communication.	“When we try to understand people’s concerns and approach them with empathy, communication becomes much easier. People are more willing to talk when they feel understood.” (P6) “Listening without judging them is very effective. When people feel that they are being heard, the conversation becomes more constructive.” (P2)
	2.2. Building Trust	Establishing trust was described as a fundamental prerequisite for successful vaccine counseling. Participants reported that individuals are more receptive to information when they trust the healthcare professional providing it.	“When talking to people, the first step is building trust. If they do not trust you, it becomes very difficult to convince them about vaccination.” (P20) “In my experience, being open and transparent is the most effective approach. When you clearly explain everything, people tend to trust you more.” (P15)
	2.3. Individualized Communication	Participants emphasized the importance of adapting communication strategies to the specific needs, cultural context, or personal circumstances of individuals.	“When talking with pregnant women, explaining things in a way that addresses their specific concerns is usually more effective.” (P11) “I try to use language that fits the local context. When people feel that the explanation relates to their own situation, they understand it more easily.” (P16)
Theme 3. Challenges in the Field: Workload, Institutional Constraints, and Communication Barriers	**3.1. Time Constraints and Workload**	Heavy workloads and limited consultation time were frequently described as barriers to providing detailed counseling about vaccination.	“Most of the time we have very limited time. Because of this, we cannot always provide the detailed counseling that we would like to give to each person.” (P1) “Our workload is quite heavy, and sometimes this makes it difficult to allocate enough time for vaccine counseling.” (P5)
	3.2. Institutional and Resource Limitations	Participants reported that insufficient institutional support and staff shortages often complicate vaccination services	“When institutional support is limited, working in the field becomes much more challenging and this can affect the impact of our efforts.” (P3) “At times, staff

Main Theme	Subthemes	Brief Description	Representative Participant Quotations
		and limit the effectiveness of outreach efforts.	shortages make it difficult to maintain services smoothly." (P16)
	3.3. Language and Communication Barriers	Communication difficulties may arise when interacting with individuals who speak different languages or come from diverse cultural backgrounds.	"In some situations, language and communication problems become a major obstacle. When communication becomes difficult, it is harder to explain vaccination clearly." (P9)
Theme 4. Reconstructing Professional Capacity: Training Needs and the Expanding Role of Public Health Nurses	**4.1. Theory–Practice Gap**	Participants reported that while theoretical education about vaccination is generally adequate, practical training related to communication with hesitant individuals is often limited.	"The theoretical part of the training is generally sufficient, but I think there should be more practical components that prepare us for real situations in the field." (P2)
	4.2. Need for Updated and Specialized Training	Participants emphasized the importance of continuous and updated training, particularly in areas such as risk communication and digital health literacy.	"Although the training I received was useful, I believe it needs to be supported with more up-to-date information." (P3) "I would like to receive additional training on risk communication, because it is very important when talking with people who are hesitant about vaccines." (P7) "Training in digital health literacy would also be helpful, since many people obtain health information from the internet and social media." (P18)
	4.3. Professional Role of Public Health Nurses	Participants described public health nurses as trusted sources of information who guide communities, advocate for public health, and maintain continuity in communication with individuals.	"As public health nurses, people tend to trust us. They often come to us first when they want reliable information about vaccines." (P1) "Nurses are not only providing information; we also play an advocacy role for community health." (P12) "Public health nurses act as a bridge between the healthcare system and the community." (P17) "In my opinion, continuity is the most effective approach. When we maintain regular communication, people

Main Theme	Subthemes	Brief Description	Representative Participant Quotations
			gradually develop more trust." (P19)

In addition, participants highlighted the role of cultural, political, and social factors in shaping vaccine hesitancy. In particular, it was noted that more cautious attitudes toward vaccination exist in certain regions and that social polarization complicates the acceptance of health messages. "Especially in rural areas, people tend to be more cautious about vaccines. They ask more questions and sometimes take longer to decide." (P16)

"Social polarization also makes this process more difficult. People sometimes evaluate even health issues through their political or social views." (P20) (Table 2).

These findings indicate that vaccine hesitancy should be understood not only as an individual attitude but also as a socially constructed phenomenon shaped by information environments and broader societal dynamics.

Theme 2. The Invisible Burden of Communication: Trust, Empathy, and Individualized Dialogue

This theme highlights the communicative and emotional labor undertaken by community health nurses in addressing vaccine hesitancy. Participants emphasized that vaccine communication extends beyond the mere transfer of information and involves building trust, demonstrating empathy, and adopting individualized communication strategies. Participants identified trust-building as the cornerstone of effective communication. Trust in healthcare professionals was described as a decisive factor influencing the acceptance of vaccine-related information. "First, you need to build trust. If the person does not trust you, it becomes very difficult for them to accept the information or be persuaded." (P20) (Table 2).

"In my experience, the most effective method is being open and transparent. When you explain things clearly, people trust you more." (P15) (Table 2).

Empathetic and non-judgmental communication was also reported to facilitate the expression of concerns and positively influence the communication process. "When you genuinely try to understand the other person and show empathy, communication becomes much easier." (P6)

"Listening without judging is very effective. When you respect their thoughts, communication becomes healthier." (P2) Participants further emphasized the importance of individualized communication approaches, noting that tailoring communication to individuals' living conditions, cultural characteristics, and needs enhances effectiveness. "When speaking with pregnant women, adapting explanations to their situation is more effective." (P11)

“I try to use language appropriate to the region I work in. This helps people understand better.” (P16) (Table 2). These findings demonstrate that communication in addressing vaccine hesitancy involves substantial relational and emotional labor beyond information provision.

Theme 3. Navigating the Field: Structural Constraints and Everyday Challenges

This theme reflects the structural and institutional challenges faced by community health nurses in addressing vaccine hesitancy. Participants reported that their efforts in the field are often constrained by heavy workload, time limitations, and insufficient resources. Time constraints and workload were among the most frequently reported barriers. Participants indicated that limited time restricts their ability to provide comprehensive counseling. “Most of the time, our time is very limited. It is not always possible to provide detailed counseling to every individual.” (P1) “Due to our heavy workload, we cannot always allocate sufficient time for vaccine counseling.” (P5) Institutional and resource-related limitations were also highlighted as significant challenges. “When institutional support is insufficient, working in the field becomes much more difficult.” (P3) (Table 2).

“Sometimes staff shortages make it harder to deliver services, which reduces the time we can dedicate to counseling.” (P16) Additionally, language and communication barriers—particularly when working with migrant populations—were identified as important obstacles. “Language barriers can be a major challenge, especially when communicating with people who speak different languages.” (P9) (Table 2). These findings suggest that addressing vaccine hesitancy is shaped not only by interpersonal communication but also by the structural conditions of the healthcare system.

Theme 4. Reconstructing Professional Empowerment: Educational Needs and Expanding Nursing Roles

This theme illustrates the professional roles assumed by community health nurses in addressing vaccine hesitancy and the needs associated with the development of these roles. Participants emphasized that vaccine communication extends beyond clinical knowledge and encompasses broader responsibilities such as guidance, advocacy, and community engagement. Participants highlighted a gap between theoretical education and field practice. “Theoretical training is generally sufficient, but more practical applications are needed for real-life situations.” (P2) They also expressed the need for updated and specialized training. “Although the training I received was helpful, it needs to be supported with more up-to-date information.” (P3)

“I would like more training in risk communication, as it is crucial when interacting with hesitant individuals.” (P7) “I would like training in digital health literacy, as people now obtain most information from the internet and social media.” (P18) Participants further emphasized their role as trusted information sources and as a bridge between the community and the healthcare system.“People trust us as community health nurses and often come to us first for accurate information.” (P1) “We are not only information providers but also advocates for community health.” (P12) “We act as a bridge between the

healthcare system and the community." (P17) The importance of continuity and follow-up in vaccine communication was also emphasized. "Continuity is the most effective approach. When we maintain regular contact, people develop greater trust over time." (P19) (Table 2). These findings indicate that community health nurses are not only information providers but also key actors who build trust, provide guidance, and connect the healthcare system with the community.

Discussion

This phenomenological study provides a multilayered understanding of community health nurses' experiences in addressing vaccine hesitancy, demonstrating that the issue cannot be reduced to a mere lack of individual knowledge. The findings indicate that vaccine hesitancy is an interconnected phenomenon shaped by the digital information environment, dynamics of social trust, and the structural capacity of the healthcare system. In this respect, the study aligns with the current literature that conceptualizes vaccine hesitancy as a relational and structural process rather than solely an individual attitude. Participants' emphasis on social media and information pollution as primary sources of vaccine hesitancy offers important insight into how risk perception is constructed in the digital age. The findings that misinformation and exaggerated content disseminated through social media weaken the influence of scientific knowledge and erode trust in the healthcare system are consistent with recent studies in the literature [19, 20, 21]. Moreover, nurses' narratives suggest that misinformation is not only a cognitive issue but is also produced within emotional and cultural frameworks. The finding that fears related to vaccine side effects are often shaped by rumors and social narratives rather than personal experiences suggests that vaccine hesitancy is more closely associated with social representations than with rational risk assessment. In addition, the prominence of cultural, political, and social distrust factors indicates that vaccine hesitancy cannot be understood independently of the nature of individuals' relationships with the healthcare system. In this context, nurses are positioned not only as providers of information but also as key actors in building trust.

The theme of the "invisible burden of communication" highlights that addressing vaccine hesitancy extends beyond technical information delivery and requires substantial emotional labor. The adoption of empathetic, non-judgmental, and individualized communication strategies is consistent with approaches recommended in the literature for effective vaccine communication [22]. However, the sustainability of such approaches is closely linked to nurses' emotional resilience and the availability of institutional support mechanisms. Participants' observations that information provided without an established trust relationship is often ineffective indicate that, in health communication, relational dynamics may take precedence over informational content. At the same time, the continuous effort to persuade individuals and the frequent experience of resistance may create conditions that increase the risk of emotional exhaustion. Indeed, previous studies have reported that primary healthcare professionals may experience similar relational tensions and burnout [23]. This underscores that empathetic communication should be considered not merely an individual skill but a professional competency that requires institutional support. Structural barriers, including time constraints, increased workload, and staff shortages, emerged as key factors limiting nurses' ability to effectively address vaccine hesitancy. Participants' reports of limited time allocated for individual counseling suggest that vaccine

communication may remain superficial if not structured as a comprehensive process. The literature similarly emphasizes the importance of institutional support, team-based approaches, and structured training for effective vaccine communication in primary care settings [24, 25]. These findings further demonstrate that vaccine hesitancy cannot be reduced to individual attitudes alone but is directly associated with the organizational capacity of the healthcare system, workforce planning, and service delivery models [19]. Therefore, while nurses' individual efforts are critical, their impact may remain limited unless supported by structural interventions. One of the notable findings of this study is that nurses increasingly reinterpret their engagement with vaccine hesitancy as a domain of professional empowerment. Participants' expressed needs for training in risk communication and digital health literacy indicate that the nursing role is being redefined in the context of the digital age. Current literature similarly highlights that healthcare professionals require not only clinical knowledge but also media literacy and strategic communication skills [20, 26]. Furthermore, participants' self-identification as trusted information sources, guides, advocates, and bridges between the healthcare system and the community reinforces the strategic role of community health nursing in public health. Evidence suggesting that culturally sensitive and trust-based communication approaches support vaccine acceptance [27, 28] indicates that these roles may have both individual and societal impact. In this context, community health nursing evolves beyond a purely implementer role into a more advocacy-oriented and transformative professional position in addressing vaccine hesitancy [29].

Essence of the Phenomenon

In this study, the essential structure of community health nurses' experiences in addressing vaccine hesitancy is characterized as a continuous process of balancing trust-building communication efforts with structural constraints in the field. While nurses strive to understand individuals' concerns and establish trust-based relationships, they simultaneously contend with factors such as time limitations, heavy workload, and institutional constraints. This dynamic indicates that vaccine communication is not merely an information-based process but also a form of relational healthcare practice that requires emotional labor, professional resilience, and sustained interpersonal engagement.

Implications for Policy and Practice

The findings of this study suggest that individual-level informational strategies alone may be insufficient in addressing vaccine hesitancy. Developing institutional training programs that strengthen nurses' communication competencies in primary healthcare settings appears essential. In addition, designing service delivery models that allow sufficient time for vaccine-related counseling may enhance the effectiveness of immunization practices.

Conclusion and Recommendations

This phenomenological study demonstrates that community health nurses' experiences in addressing vaccine hesitancy are complex, relational, and shaped by broader social and systemic dynamics. The findings indicate that vaccine hesitancy cannot be explained solely by individual knowledge deficits but

is closely associated with the digital information environment, trust relationships, and the structural conditions of the healthcare system.

Nurses' narratives reveal that vaccine communication extends beyond the transmission of technical information and largely involves the establishment of trust-based relationships, often requiring substantial emotional labor. However, structural constraints such as heavy workload and limited time for counseling further complicate this process. Despite these challenges, nurses actively reconstruct their roles as key actors who strengthen public trust and promote evidence-based health communication.

Strengthening competencies in risk communication and digital health literacy, along with enhancing institutional support mechanisms, may improve the effectiveness of immunization services and support nurses in managing vaccine hesitancy within primary healthcare settings.

Limitations

Several limitations should be considered when interpreting the findings of this study. First, the research was conducted in a single province in eastern Türkiye and included only nurses working in primary healthcare settings. Therefore, the findings may not be directly generalizable to other geographical regions or healthcare contexts. However, the aim of phenomenological research is not statistical generalization but to provide an in-depth understanding of participants' lived experiences. Second, all participants in the study were female. This reflects the workforce structure of the research setting rather than a deliberate sampling strategy, as the majority of community health nurses are women. Nevertheless, gender may influence how professional experiences are perceived and interpreted. Finally, the data are based on nurses' subjective experiences and do not include the perspectives of individuals experiencing vaccine hesitancy or other healthcare professionals. Although efforts were made to encourage open and honest responses during interviews, the possibility of socially desirable responses cannot be entirely excluded. Future studies including diverse healthcare professionals and different sociocultural contexts may contribute to a more comprehensive understanding of vaccine hesitancy in primary healthcare settings.

Declarations

Ethics approval and consent to participate

Ethics approval for this study was obtained from the Scientific Research and Publication Ethics Committee of Muş Alparslan University (Decision No: 218926, Date: 07 November 2025). The study was conducted in accordance with the ethical principles of the Declaration of Helsinki. Written informed consent was obtained from all participants prior to data collection.

Consent for publication

Not applicable.

Availability of data and materials

The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

Leyla Sezgin and Aycan Şahin conceived and designed the study; Leyla Sezgin and Aycan Şahin acquired the data; Elif Ayfer Baltacı Yıldız and Leyla Sezgin analyzed and interpreted the data, and drafted the manuscript. Leyla Sezgin, Aycan Şahin and Elif Ayfer Baltacı Yıldız critically revised the manuscript for important intellectual content. All authors read and approved the final manuscript

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