Received: 28 June 2021 | Revised: 26 August 2021 | Accepted: 9 September 2021

DOI: 10.1111/jocn.16061

Journal of Clinical Nursing WILEY

ORIGINAL ARTICLE

Better safe than sorry: Registered nurses' strategies for handling difficult calls to emergency medical dispatch centres – An interview study

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Funding information
Grants were received from VINNOVA, Grant/Award Number: 2017-04652

Abstract

Aims and objectives: To describe strategies employed by registered nurses for handling difficult calls to emergency medical dispatch centres.

Background: At emergency medical dispatch centres, registered nurses encounter a range of difficult calls in their clinical practice. They often use clinical decision support systems, but these may be of limited help if the caller is for instance abusive or has limited language proficiency. Much can be learnt from strategies developed by registered nurses for handling difficult calls.

Design: A descriptive qualitative study was conducted.

Methods: A purposeful sample of 24 registered nurses from three different emergency medical dispatch centres were interviewed. The transcribed interviews were analysed using qualitative content analysis. The COREQ checklist was applied.

Results: An overarching theme was established: "Using one's nursing competence and available resources for a safe outcome", based on three sub-themes: *Use one's own professional and personal resources*, *Use resources within the organisation* and *Use external resources*. The themes in turn consist of ten categories.

Conclusions: Registered nurses employed a range of strategies to deal with difficult calls, often in combination. They used their personal resources, resources within their own organisation, and collaboration partners to make safe triage decisions and use resources wisely. The effectiveness of these strategies, however, remains unknown. When registered nurses were unable to rule out a high-acuity condition, they used safety-netting and sent an ambulance. Evaluating current strategies and making strategies explicit could further improve the ability of nurses to handle difficult calls.

Relevance to clinical practice: The strategies described by registered nurses for handling difficult calls to EMDCs included using a consecutive set of strategies. Some of the strategies seemed to be used deliberately, while others seemed tacit and applied in a routinised way. These strategies could potentially be useful for RNs working with telephone triage in different contexts.

KEYWORDS
communication, emergency calls, emergency medical dispatch, interviews, telephone triage, content analysis

1 | INTRODUCTION

Emergency Medical Dispatch Centres (EMDCs) take calls from the public in emergency situations and are the first point of contact with the pre-hospital care system in many countries. Their structure and professional groups employed may however differ. In Sweden, emergency medical dispatchers or registered nurses (RNs) have the primary call-taking role. Their work is mainly carried out in three steps: Identifying the event, assessing callers' need for support, and prioritising the response, as shown by Montandon et al. (2019) in a review of the literature on EMDC telephone triage. To achieve this, RNs ask questions to identify care needs, analyse the emergency situation, consider sending an ambulance or other resources to the correct address and patient, and assess how urgent the illness/accident is to determine the priority of the response (Hedman, 2016). The RN or dispatcher steers the call by asking questions which callers are expected to answer.

What does this paper contribute to the wider global clinical community?

- RNs employ a range of strategies to handle difficult calls
- The guiding principle for RNs handling of difficult calls was safety-netting
- The effectiveness of the strategies used is unknown, and further research is warranted

2 | BACKGROUND

Triaging emergency calls places high demands on RNs' communicative competence, as in all telephone nursing triage (Holmström et al., 2021; Kaminsky et al., 2017, 2021). However, some calls are more difficult than others, and some calls are resistant to RNs' communication strategies. In non-acute telephone triage, RNs reported that becoming emotionally invested is central to experiencing a call as difficult. Such calls can create feelings including inadequacy, uncertainty, and anxiety among the RNs (Eriksson et al., 2019). Emergency calls considered difficult often feature linguistic barriers, agitated and rude callers, and immediate life-threatening conditions (Holmström et al., 2021; O'Hagan et al., 2014). In this paper, we consider calls to be difficult when RNs are threatened or become upset, when they do not know what to do or say, in situations such as suicide attempts, and when there are practical difficulties of some kind, such as an unknown geographical location. This definition is based on empirical work, rather than an *a priori* theoretical framework. Research on difficult communication in healthcare has mainly focussed settings like palliative care, oncology or maternity care (Kennedy Sheldon et al. 2006), which are not applicable in the present setting.

Lindström et al. (2014) found that a lack of communication strategies for handling difficult situations was an obstacle to handling emergency calls. Even RNs with excellent communication skills can be challenged by difficult situations concerning for instance upset or dissatisfied patients (Kennedy Sheldon et al., 2006). Booker et al. (2018) suggested that difficulties encountered in triaging calls may be due to a misalignment between organisational and caller perceptions of the 'purpose' of the questions. Callers might for instance feel that RNs' questions are only delaying ambulance dispatch.

2.1 | RNs' strategies to handle difficult calls in other settings

How RNs respond during difficult calls to EMDCs and the strategies they use to handle those calls depend on many factors. By strategies we here mean methods to achieve a desirable outcome in uncertain or insecure conditions. Such strategies could be either planned and conscious, or tacit and internalised without conscious planning. In non-acute telephone triage, Eriksson et al. (2020) found that to handle difficult calls, RNs used the strategies of "show commitment and interest", "have structure in the call and use support systems", "pause the call", and "reflect on difficult calls".

It is important to note that callers bring their backgrounds and the stress of the incident into an emergency call. Communication in the nurse-patient relationship is thus a multidimensional interaction, complicated by the human responses of both participants (Kennedy Sheldon et al., 2006). In another setting Johnsson et al. (2018) described how RNs used four different voices when talking to patients: A medical voice which is incomplete, task-oriented and disease oriented; a nursing voice which is confirmatory, process-oriented and holistic; a pedagogical voice which is contextualised, comprehension-oriented and learning oriented; and a power voice which is distancing and excluding. Such different voices (Johnsson et al., 2018) might be used also in emergency calls.

2.2 | Clinical decision support systems in emergency calls

To aid in providing safe and effective emergency telephone triage RNs often use a clinical decision support system (CDSS) (Montandon et al., 2019). CDSSs are often "expert systems"

consisting of a set of predetermined assessment rules. A CDSS can provide a structure for calls, improve decision-making, and make assessments safer (Dowding et al., 2009; Holmström et al., 2019, 2020). A CDSS can however only provide help to a certain extent, and the most effective strategies to enable RNs to perform an appropriate triage assessment and take action have not been established. Understanding the conscious and deliberative strategies used by RNs in handling difficult calls may thus have implications for patient outcomes. Therefore, the aim of the present study was to describe strategies employed by registered nurses for handling difficult calls to emergency medical dispatch centres.

3 | METHODS

3.1 | Design

The study had a qualitative descriptive design with an inductive approach (Patton, 2015). Individual interviews were conducted, and qualitative content analysis according to Graneheim et al. (2017) was applied for data analysis. This approach was chosen to map the perspectives and experiences of RNs in an area with limited published knowledge.

3.2 | Sample and setting

Three EMDCs in mid-Sweden staffed exclusively by RNs in the call-taking role were included in the study. About 20–25 RNs worked at each EMDC site. Upon employment, RNs receive 4–6 weeks of internal training dependent upon prior experience. The training consists of one week of training in the technical use of the dispatch system, a course in the Advanced Medical Life Support (AMLS) assessment methodology, and a total of 3–5 weeks of listening in to calls, riding along on an ambulance, and mentored call-taking spread across the training period. All RNs must pass a final written test to begin independent work at the EMDCs.

The EMDCs in question covered an area with around 950,000 inhabitants. The EMDCs handled approximately 114,000 calls yearly, taking calls on a 365/24/7 basis. Out of about 70 eligible RNs, we recruited a purposeful sample of 24 RNs for individual interviews. Nine men and fifteen women were included. They were 34–64 years old, and their working experience ranged from 5 to 44 years. All of the RNs had a three-year bachelor degree in nursing and eleven had one or more additional specialist educations (usually 1 year long), such as intensive care nursing or district nursing.

3.3 | Data collection

Prior to recruitment and interviewing, four of the authors made auscultations and informal observations at two of the EMDCs to get acquainted with the RNs' work and working environment. Thereafter, three pilot interviews were done which led to a reduction of the number of questions in the interview guide, as it was perceived to be too extensive. The interviews began with background questions about the professional background of the RNs and thereafter turned to questions about their work processes and professional practice. Probing questions, such as "please tell me more" or "please give a concrete example" were used to get rich descriptions.

Examples of interview questions are listed below:

1. What is the core of the EMDC work in your view?
2. When do you feel that you have success in your EMDC work?
3. What is difficult or what hinders you in your EMDC work?
4. Are there any special types of calls which are more challenging or difficult?
5. How do you handle such calls?
6. What are the pros of the CDSS?
7. What are the development areas of the CDSS?
8. Please describe a case when the CDSS was helpful.
9. Please describe a case when the CDSS was not helpful.

These findings about CDSS use are reported elsewhere (Holmström et al., 2020) as well as findings about RNs perceptions of EMDC triage work (Kaminsky et al., 2021).

The managers of the three included EMDC-sites were asked to recruit seven RNs each. Information about the study and the request to participate was sent via mailing list, and then additional RNs were recruited by the managers via direct contact to achieve the full sample size. We instructed the managers that a diverse sample was preferable, and that RNs with long and short working experience, and of different ages, genders and specialist educations should be included.

A research assistant with previous experience of doing qualitative research interviews performed the interviews, which were audio recorded. The informants were informed that she was an RN, but she was not previously known to them and had not worked with emergency calls herself. The interviews took place at a private room at the respective EMDCs, except for one telephone interview, and ranged from 19 to 57 min (mean of 37 min). Data saturation was reached after 15 interviews, but as we wanted the same number of RNs from each EMDC site, interviewing continued. The three pilot interviews were rich in content and included in the final data set.

3.4 | Ethical considerations

Ethical approval was granted from the Uppsala Regional Ethical review Board in Sweden (Dnr. 2018/133/1). The regulations in the Swedish Ethical review Act (SFS 2003:460, n.d.) were followed. First, the head of department approved the study, and informed consent was obtained from RNs before inclusion. The RNs were informed about their liberty to abstain from participation, and that they could end their participation at any time without providing a reason. Data were treated confidentially and is presented on group level.

3.5 | Data analysis

The interviews were transcribed word-for-word by a professional transcribing bureau, and then processed as text. A qualitative inductive content analysis according to Graneheim et al. (2017) was conducted in a step-wise manner. This was done by the first author, with the last author acting as co-reader. First, the text was broken down into meaning units, which were then condensed. From the condensed meaning units, categories were established describing similarities on a manifest and descriptive level close to the text. Thereafter, descriptive sub-themes were formulated. Such sub-themes describe 'the common thread' that is invariant in the text. Finally, a theme of meaning was created. A theme of meaning provides direction and nuance to data and answers the question 'What are the meanings of the participants' stories?' (Graneheim et al., 2017). The analysis was repeatedly discussed at team meetings with all authors, and disagreements were settled by negotiated consensus. The COREQ checklist was used to assure quality, please see Supplementary File (Tong et al., 2007). Quotes were used to enhance confirmability.

4 | RESULTS

As an answer to the study aim of describing strategies employed by registered nurses for handling difficult calls to EMDCs a theme labelled "Using one's nursing competence and available resources for a safe outcome", based on three sub-themes were established. The three sub-themes were: *Use one's own professional and personal resources*, *Use resources within the organisation*, and *Use external resources*. The sub-themes in turn consisted of ten categories as per Table 1. The RNs described that they often used a combination of strategies, as described in the sub-themes, simultaneously. The findings are presented below with illustrative quotes.

4.1 | Theme: Using one's nursing competence and available resources for a safe outcome

The theme runs through the entire data set like a common thread. Participating RNs stated that they always had the life and health of callers as their top priority. This meant sometimes deliberately "over triaging" as a form of safety netting, according to the principle "better safe than sorry". Difficult calls put the RNs professional competence and experience to the test, and they could not just follow the CDSS to achieve a safe outcome. If it was impossible to engage in a meaningful conversation, the solution could be to focus on trying to get the address to send an ambulance. The RNs described that they often used a combination of strategies.

4.2 | Sub-theme one: Use one's own professional and personal resources

This sub-theme includes strategies based in the RN's individual resources. The theme consists of five categories: *Understand the cause and pick up signs*, *Provide extra care and time*, *Use simple language and change wording*, *Keep calm and focused* and *Change tone of voice*. While some seemed to be taught, like understanding the cause and picking up signs, others, like providing extra care and time had emerged through experience.

4.2.1 | Understand the cause and pick up signs

When language barriers occurred, strategies expressed by RNs included understanding the causes of language barriers to handle it properly. They tried to pick up signs about the nature of the language barriers, in addition to picking up signs of the callers'

TABLE 1 Theme, sub-themes and categories describing strategies employed by registered nurses for handling difficult calls to emergency medical dispatch centres

Category	Sub-theme	Theme
1:1 Understand the cause and pick up signs	1. Use one's own professional and personal resources	Using one's nursing competence and available resources for a safe outcome
1:2. Provide extra care and time		
1:3. Use simple language and change wording		
1:4. Keep calm and focused		
1:5. Change tone of voice		
2:1 Park the call and hand over to a colleague	2. Use resources within the organisation	
2:2 Follow the CDSS		
3:1 Talk to someone else at the scene	3. Use external resources	
3:2 Refer or divert		
3:3 Find a reference location and collaborate with other resources		
3:4 Use interpreters		

condition. Was the caller drunk or had s/he suffered a stroke? Understanding such causes of language barriers were expressed as pivotal for providing safe care. The RNs needed to adapt their speech and actions in different ways depending on the language barrier at hand. For example, when callers had communication difficulties caused by aphasia, RNs expressed proceeding in a different way than with intoxicated callers. In these cases, it was extra important to listen and pick up signs other than just verbal language, like breathing.

> I listen to how they breathe, I listen to how they speak, if they like pant. They might deny being in pain, but then I hear that they breathe, it could be heavy or shallow breathing and gasping.
>
> *(13)*

4.2.2 | Provide extra care and time

If the caller had psychiatric problems like intense anxiety, the RNs stated that they needed to act gently. The RNs described that handling these calls was like walking on very thin ice, and they were afraid to say something which might trigger a suicidal caller. They could not end these calls without knowing that the caller was taken care of or had become less anxious during the call. Therefore, these calls often took extra time. The RNs tried to provide that extra time, despite the time pressure and demands of always maintaining an open telephone line, as they did not want to leave the caller in agony:

> The difficulty is that we're the emergency medical dispatch, we have to keep calls short. But these calls need some extra time, and I have to provide empathy and sympathy in a different way than with a broken arm. I'm talking to a very vulnerable person
>
> (17)

The RNs also described how they strove to provide empathy and supportive nursing care, to reassure and/or distract the caller.

4.2.3 | Use simple language and change wording

If the caller wasn't a native Swedish speaker, the RNs tried to use a more simple language. For instance, instead of saying "abdomen" they could say "tummy". If the caller still didn't grasp the question, they tried to change wording. If they got no reply when asking for the address, they could instead ask the name of the street or where the ill person lived. The RNs stressed that in these situations raising their voice was counterproductive, and that using easier wording was much better. They could also try with a few English words and see if the caller could comprehend them better:

> if you're lucky it works out better when I change some words and they can provide a better reply
>
> *(22)*

4.2.4 | Keep calm and focused

A common strategy in the calls about a life-threatening condition was to deliberately stay calm and focused, to provide the best help possible: If a life-threatening condition was apparent, it was important to instil the feeling of being supported by the RN, and to create cooperation.

> I'm at your side over the phone…to create cooperation in this critical situation and be persuasive so that they can hear in my voice that I'm in charge now. They don't need to be scared, I will solve this for you. Instill security, and I take over. Please calm down and follow my instructions
>
> (7).

By being calm and clear, the RNs could cool down the situation. If that strategy worked, the communication could be more constructive and focused on solving the issue at hand. The RNs also explained repeatedly to callers that they were there to help, and that cooperation and answers to their questions were necessary to provide that help. The RNs strove to be concrete and straightforward. This meant posing concrete questions and keeping the dialogue focused. Sometimes interruption of the callers' fuzzy narrative was expressed to be necessary to get a quick grasp of the situation. Posing clarifying and often repetitive questions was a way to try to get the information required to make an assessment. In some situations, e.g. if the caller was abusive the RN also pointed out to the caller that the call was audio recorded, and others could listen to the recording.

> if you don't talk properly with me, I cannot help you. Let's start all over again because this is no good. I'm here to help and I don't want you to yell profanities to me. // Let's work together, tell me who is ill and what has happened?
>
> *(7)*

4.2.5 | Change tone of voice

Changing tone of voice could, according to the RNs, be a strategy to make the caller listen more carefully and for instance stop yelling, and different RNs used different ways of changing tone of voice. The change of voice tone could be either to speak louder and try to drown out the caller's yelling. It could also be the opposite, to lower the voice to calm down the communication:

> I try to remain calm and lower my voice, not raising my voice but speak in a softer manner
>
> *(16)*

4.3 | Sub-theme two: Use resources within the organisation

This theme consists of two categories and includes using either human or computerised support provided by the organisation: *Park the call and hand over to a colleague* and *Follow the CDSS*. These strategies were often used by RNs in a second stage, after exhausting their own personal and professional resources.

4.3.1 | Park the call and hand over to a colleague

If keeping calm, concrete and trying to establish an alliance did not work, the RN could unplug, park the call and ask a colleague for advice or to take over the call. Sometimes they told the caller that "I think it's better if you talk to a colleague" and handed over the call. However, they sometimes just transferred the call to a colleague without telling the caller and faked some sort of technical mishap. The strategy of transferring a patient to a colleague was described as often working well, and that the colleague taking over had a better chance of a decent conversation with the caller:

> At worst, I park the call and ask a colleague to take over the call. Because it's a total clash, it doesn't work
>
> *(15)*

4.3.2 | Follow the CDSS

The RNs used the CDSS by default, but often they only used main headings as many of them seemed to have internalised the CDSS and knew it by heart. However, if it was difficult to rule out the core problem and the caller couldn't verbalise what was wrong, the RNs described that they returned to the CDSS questions to try and rule out acute conditions, like about breathing. They stated that a common strategy in calls with stressed out persons or about persons in vulnerable groups, such as children, was to turn to the CDSS and follow it strictly as the RNs did not always know what was wrong in these cases.

> …so that you don't get caught in their stress but stay calm and lean on the questions in the CDSS to get as much information as possible
>
> *(14)*

4.4 | Sub-theme three: Use external resources

This theme comprises using resources outside the EMDC organisation and was used when other strategies did not work. It consists of four categories: *Talk to someone else at the scene*, *Refer or divert*, *Find a reference location and collaborate with other resources*, and *Use interpreters*.

4.4.1 | Talk to someone else at the scene

If the speech of the caller was non-comprehensible, talking to someone else at the scene was a common strategy. The RNs said that there often could be someone in the family, a friend, or someone passing by who could make themselves understood in a better way, and who could explain more comprehensively what was going on. This could be an immense help for RNs in assessing the situation and deciding on measures. However, if it was a child in the family this could create other problems and ethical dilemmas:

> Sometimes you have to talk to the kids, they could be nine or ten years, and I should try to get something meaningful out of taking to them as their parents cannot speak Swedish
>
> *(3)*

4.4.2 | Refer or divert

If the RN had concluded that the symptoms and situation was non-urgent and an ambulance was not needed, the caller could be referred to other services. Such services included the psychiatric clinic, the national telephone nursing line, or the national on-call fellow human helpline. When referring, there was however a worry that the caller might be lost along the way:

> For suicidal callers I would like to have a button to push to connect to the police and the rescue service. As for now, I have to go through several steps to connect to another system. I feel uncomfortable making these connections, what if I lose the caller?
>
> *(5)*

4.4.3 | Find a reference location and collaborate with other resources

If the caller was lost and did not know where they were, finding a reference location to start the search for the right address was a common strategy among RNs. Getting the address was pivotal for sending an ambulance. This could be done by asking what the point

of departure was, and then trying to start from there to narrow the search field. They could also ask for landmarks like a church or a big hill, something that stood out from the landscape:

> I try the best I can: please look around, where did you start? // Start looking there, I need to rewind so to speak
>
> (17)

The RNs also collaborated with other emergency services in finding the location and providing care.

> me and my colleague and the rescue services and the caller collaborated. Eventually they were found by the emergency services driving around and back and forth, flashing their lights. And the callers went: now we see them, now they've disappeared
>
> *(12)*

4.4.4 | Use interpreters

Using professional interpreters was an option which some RNs seemed to use quite often, while others never or seldom used this service. If used, the RNs called an interpreter service, and together with the interpreter they made a joint call to the patient. A reason for not using this service was that it took too much time. According to the RNs, an ambulance was instead often sent for safety-netting reasons. The benefits of using an interpreter were however obvious, as illustrated by the quote below:

> My colleague got a call the other day and contacted an interpreter. At first, he thought that it was about a pregnancy, pregnant in week 32…but she had fallen and was under a table. It had nothing to do with pregnancy whatsoever.
>
> *(13)*

5 | DISCUSSION

The present study aimed to describe strategies employed by RNs for handling difficult calls to EMDCs. We found that RNs used multiple strategies, sometimes simultaneously, to handle difficult calls to EMDCs. These strategies could be summarised in the theme "Using one's nursing competence and available resources for a safe outcome", which was built on the sub-themes: *use one's own professional and personal resources*, *use resources within the organisation*, and *use external resources*. The strategies described in the themes seemed to be used in a consecutive way: First the RNs used their professional competence and their own resources, followed by thereafter those provided by the organisation, and finally external resources. These findings differ from Lindström et al. (2014), who reported that RNs' lack of communication strategies was an obstacle in EMDC calls. In this study, we rather identified a plethora of strategies employed by RNs to handle difficult calls. Our findings also point to the importance of having clinical expertise such as that provided by a nursing degree, as the complex issues faced by the RNs in this study could not be solved simply by a medically untrained dispatcher adhering to a formal CDSS.

To some extent, the findings are congruent with those by Eriksson et al. (2020) from a non-urgent telephone triage setting, suggesting that the types of calls considered difficult as well as strategies employed are, to a large extent, similar in both non-urgent and urgent settings. The Eriksson et al. (2020) theme "To be calm and secure in themselves" corresponds to the present category *Keep calm and focused*. The theme "To show commitment and interest" in Eriksson et al. (2020) was apparent in the present category *Provide extra care and time*, while "Pause the call" was expressed by the present RNs in the category *Park the call and hand over to a colleague*. However, the theme "To reflect on difficult calls", found by Eriksson et al. (2020) was not clearly expressed by the RNs in this study. It might be that the tempo of EMDC RNs' work did not provide enough room for reflection. The interviewed RNs also pointed to the importance of adhering to the CDSS in difficult or vague cases. This is important, as Spangler et al. (2020) have shown that increased compliance with CDSS has the potential to improve patient safety.

There seems however to be a further need for improvement of the dispatch system. As described by Holmström et al. (2020), RNs requested that more features should be included in the system, such as image transfer, access to medical records, development of certain areas in the CDSS, and updated maps. Such development is ongoing, including new map features (such as displaying the location of public defibrillators), automated retrieval of patient information from hospital medical records, and the expansion in the ability to locate callers via cell phone triangulation and GPS coordinates to aid in the localisation of callers. Another area found previously to be in need of further development was the handling of psychiatric illnesses and suicide attempts (Holmström et al., 2020). This was apparent also in the present study, as RNs indicated that taking such calls was like walking on very this ice, and that they had no specific training in psychiatric nursing. It may thus be beneficial to for instance include additional education regarding this and other types of particularly difficult calls to the training regimen for new RNs.

The findings seem to correspond quite well with Johnsson et al. (2018) findings from another setting of how RNs used four different voices when talking to patients: a medical voice, a nursing voice, a pedagogical voice, and a power voice. The present RNs described using a medical voice when they persisted in asking questions about the signs and symptoms of the patients and following the CDSS despite the caller yelling or using profanities to threaten them. They used a nursing voice when they provided extra care and time, especially for vulnerable callers. Furthermore, they used the pedagogical voice when they adjusted their speech and tone of voice to the caller and explained repeatedly that they

were there to help and what to do. Finally, they used the power voice if the caller resisted cooperation. Hence, nursing skills and competence were found to be crucial when dealing with difficult calls.

As described by Hedman (2016) RNs ask questions to identify care needs, analyse the emergency situation, consider sending ambulance assistance to correct address and patient, decide how fast this should be done and assess how urgent the situation is. This was vividly expressed by the present RNs, and they tried to stick to their task and use their professional competence even under difficult circumstances. If the call went completely out of hand, they paused the call and asked a colleague for help to cool down a situation. It is important to note that the RNs did not hang up on callers, which would have been unethical. However, when they could not establish useful communication with the caller despite trying different strategies or when being threatened and called profanities, they sometimes transferred the call to a colleague without telling the caller about this action. The RNs expressed that this strategy often worked surprisingly well.

Kennedy Sheldon et al. (2006) underscored that RNs felt unprepared in their education to handle complex communication. RN-patient communication is often laden with emotion, especially in emergency situations, and negative emotions make communication more difficult. Responding to patients is a flexible skill that RNs develop with experience and support after formal education, and continually adapt to many clinical and individual factors (Kennedy Sheldon & Ellington, 2008). The difficult calls put RNs competence to the test, as simple adherence to a CDSS could not solve the problems. The present findings could thus be used for training and education of RNs taking EMDC calls. Support during and after difficult or emotion-laden situations, debriefing, individual counselling, preceptorship, and mentoring has proven to be helpful (Kennedy Sheldon et al., 2006). Further studies are however warranted regarding the actual communication in EMDC calls. Interventions implementing the strategies outlined here in a systematic way may further enhance RNs abilities to deal with difficult calls, and may constitute a fruitful avenue for further research.

5.1 | Strengths and limitations

We adapted the four-dimension criteria to establish rigour as outlined by Forero et al. (2018). In building the research team, we sought a mix of professional backgrounds, including medical emergency work and telephone triage, which allowed for both emic and etic perspectives. Rigour was further enhanced by preparing data collection guidelines, defining and obtaining adequate participation, reaching data saturation, and ensuring consistency and consensus among authors. An obvious limitation in the present study is that we did not study the actual communication between RNs and callers, but rather what RNs reported in interviews regarding their strategies for handling difficult calls. Data were however rich in content, and the RNs provided vivid accounts of the clinical reality of taking emergency calls. The Swedish setting and organisation of EMDC work might be a further limitation.

6 | CONCLUSIONS

It is clear that handling difficult calls is part of the RNs daily work at EMDCs. Nonetheless, research is scarce about how RNs deal with these calls. The RNs in the present study described a number of strategies, often exercised in combination, to handle difficult calls to EMDCs. These calls demanded professional nursing competence to solve, but whether the strategies employed are effective requires further investigation. The fundamental principle expressed by RNs was that when unable to rule out a clinically acute reason for the call, to always use safety-netting and send an ambulance. There seems to be a need for the development of the dispatch system to further aid the RNs assessments and care, as well as training of RNs in specific types of difficult calls.

7 | RELEVANCE TO CLINICAL PRACTICE

The strategies described by RNs for handling difficult calls to EMDCs included using their personal resources like keeping calm and focused or adapting their language, using resources within their own organisation including colleagues and the CDSS, and availing themselves of collaboration partners including interpretation services to make safe triage decisions and wise use of limited resources. They acted according to the devise "better safe than sorry". Some of the strategies seemed to be used deliberately, while others seemed tacit, internalised, and applied in a routinised way. Evaluating current strategies as well as making strategies explicit could be ways to further develop how registered nurses work with difficult emergency calls. Education and training in handling difficult calls would also be beneficial.

ACKNOWLEDGEMENTS

We are indebted to the participating registered nurses for their time and engagement. Grants were received from VINNOVA, Grant/Award Number: 2017-04652.

CONFLICT OF INTEREST

No conflict of interest to declare.

AUTHOR CONTRIBUTIONS

IKH, EK, YL, DS and UW involved in conception and design of the study. EK and YL involved in acquisition of data. IKH and UW involved in analysis and interpretation of data. IKH, EK, YL, DS and UW involved in drafting or revising the article. IKH, EK, YL, DS and UW involved in final approval of the version to be submitted.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions. Research data are not shared.

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How to cite this article: Holmström, I. K., Kaminsky, E., Lindberg, Y., Spangler, D., & Winblad, U. (2022). Better safe than sorry: Registered nurses' strategies for handling difficult calls to emergency medical dispatch centres – An interview study. *Journal of Clinical Nursing*, 31, 2486–2494. https://doi.org/10.1111/jocn.16061