

## Qualitative study - other

# Telehealth assessment by nurses is a high-level skill where interpretation involves the use of paralinguistic as well as objective information

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**Commentary on:** Wouters LT, Zwart DL, Erkelens DC, *et al.* Tinkering and overruling the computer decision support system: working strategies of telephone triage nurses who assess the urgency of callers suspected of having an acute cardiac event. *J Clin Nurs* 2019; 29:1175–86.

## Implications for practice and research

- ▶ A buddy/peer support system for less experienced telephone triage nurses—with continual training and updates for all telenurses—would guide and support decision making.
- ▶ Further research is needed to explore paralinguistic and the creation of mental images in telephone triage, especially their impact on patient outcomes.

## Context

The use of telephone triage systems in healthcare is on the increase worldwide especially in remote areas. This research paper<sup>1</sup> provides valuable insights into the decision-making process used by staff working in telephone triage with clear discussion on the prescribed process and on nurses' intuition and experience.

## Methods

The study<sup>1</sup> used audio-stimulated recall interviews incorporating semi-structured questions with 24 triage nurses from out-of-hours primary care centres. It centred around callers suspected of having acute cardiac events and the triage nurse had the support of the computer decision support system (CDSS). The data were analysed using NVivo qualitative data analysis software with a dual approach of deductive approach in the analysis of reasoning strategies and inductive grounded theory model around the CDSS use.

## Findings

Nurses not only used clinical reasoning in their decision making but also interpreted the paralinguistic of the caller (vocal elements, tone and shortness of breath) along with creating a visual mental image of the caller. When their decision did not match the CDSS, they used four strategies to achieve congruence: (1) tinkering, (2) over-ruling the CDSS, (3) complying with the CDSS or (4) transferring responsibility to a general practitioner. More experienced nurses felt more confident in their decision making, often utilising intuitive responses based on experience. Novice nurses tended to follow the guidelines without 'tinkering'.

## Commentary

Telenurses are making clinical decisions based entirely on oral communication,<sup>2</sup> using listening and interactive skills to assess the often, complex situation of the caller. Although it is not possible in telephone triage to see the caller, the use of 'mental imaging' along with the paralinguistic and subtle non-verbal cues given by the caller seems to be an important source of information for the telenurse. However, it may also represent a form of cognitive bias that could lead to errors in judgement.<sup>3</sup>

Telenurses in this study and others<sup>4</sup> outline that often they 'disagree' with the CDSS, often being overcautious, perhaps borne from fear of litigation, which could lead to overtreatment.<sup>1</sup> The notion of 'tinkering' that is identified in this study refers to a willingness of the more experienced nurses to make the CDSS decision congruent with their own.

When taken together this the idea of mental imaging, there is a heightened risk of bias. However, there is little or no research available that establishes whether these nursing approaches enhance clinical decision-making accuracy and have an impact on patient outcomes.

The likelihood of accurate interpretation of objective and subjective information is increased when we consider that many countries require 3–5 years prior experience in recruiting telenurses, as the position requires 'seasoned nursing experience'.<sup>5</sup> It is important that this area of nursing is valued as an expert skill. However, many telenurses report that they feel 'disrespected'.<sup>4</sup>

Sharing of good practice with countries more experienced in telemedicine—such as Australia—is a way forward. This will allow the evidence base for practice to be developed and support the development of nascent services. We can also learn from others about the training and support that nurses need to support their decision making and assist in their professional development.<sup>6</sup>

This is a specialised triage area of practice that must be formalised and supported with adequate training—an example of the value of this type of care delivery is the large-scale and urgent recruitment of 'track-and-trace' call handlers in response to the COVID-19 perspective. From a nursing perspective, teletriage should be viewed as a growing subspecialty, with awareness-raising and training starting at the preregistration level.

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