

## WORK EXPERIENCES AND TRAINING NEEDS IN THE IMPLEMENTATION OF DIGITAL CHAT-BASED CARE ASSESSMENTS IN PRIMARY CARE

Elnura Halmambetova<sup>1\*</sup>, Evalill Nilsson<sup>1</sup>, Cecilia Fagerström<sup>1</sup>, Hans Thulesius<sup>2</sup>,  
Clara Axelsson<sup>2</sup>, Jan Aidermark<sup>3</sup> & Carina Werkander Harstäde<sup>4</sup>

<sup>1</sup>Department of Research, Region Kalmar County, Sweden,

[elnuraruslanovna.halmambetova@regionkalmar.se](mailto:elnuraruslanovna.halmambetova@regionkalmar.se),  
[evalill.nilsson@regionkalmar.se](mailto:evalill.nilsson@regionkalmar.se), [cecilia.fagerstrom@regionkalmar.se](mailto:cecilia.fagerstrom@regionkalmar.se)

<sup>2</sup>Department of Medicine and Optometry, Faculty of Health and Life Sciences,  
Linnaeus University, Sweden, [hans.thulesius@lnu.se](mailto:hans.thulesius@lnu.se), [clara.axelsson@lnu.se](mailto:clara.axelsson@lnu.se)

<sup>3</sup>Department of Informatics, Faculty of Technology, Linnaeus University, Sweden,  
[jan.aidemark@lnu.se](mailto:jan.aidemark@lnu.se)

<sup>4</sup>Health and Caring Sciences, Faculty of Health and Life Sciences, Linnaeus University,  
Sweden, [carina.harstade@lnu.se](mailto:carina.harstade@lnu.se)

(\*Main presenter and corresponding author)

### ABSTRACT

The digital transformation of society affects healthcare to the greatest extent. Despite the increasing knowledge on implementation of telemedicine in healthcare systems, the current state of research on text-based care assessments conducted by nurses in primary care is naught. To ensure smooth transition and adoption of this new working method, it is essential to map out nurses' working experiences and training needs. Currently the training of future clinicians on the use of telemedicine is only in its earliest stages. Proper educational training for nurses is essential to empower them with telemedicine knowledge and hands-on skills, so that they can be a creative force for innovations within their practice. Hence, this study aims to describe nurses' training and working experiences with text-based care assessments in primary care.

Qualitative study design using semi structured in-depth interviews was conducted among seven health professionals (nurses and pharmacist) from four different regions in Southeast Sweden. Data was inductively analyzed using reflexive thematic analysis.

Three preliminary themes were generated to describe nurses training and working experiences with text-based care assessments, namely Learning the art of digital interaction, Prolonged assessment process, and Anticipated facilitating features in the system. According to the participants the conversational process in the chat can be difficult to work with. It can also inhibit the creation of therapeutic relationship with the patient. The training in chat technique was expressed to be well needed skill for creating a clarity in the conversation and obtaining an accurate anamnesis in a timely manner. Overall, conduction of text-based care assessments was associated with prolonged care assessments process. Difficulties in conducting a good medical

*Work experiences and training needs in the implementation of digital chat-based care assessments in primary care*

assessment was mostly due to fact that text-based conversations were more prone to misinterpretation and misunderstanding. Hence informing, confirming, and summarizing were seen as good chat practices which facilitated effective communication. Nevertheless, prolonged care assessment had also some benefits, such as it enabled clinicians to think through their answers and consult with colleagues, which can lead to more thorough medical assessment. Other positive aspects of this new working method included the availability of chat history, the ability to send information links in the chat, varying work environment and professional development. Lastly, anticipated facilitating features in the system including auto anamnesis and auto triage can be enhanced to better meet nurses' needs.

The findings of this study may offer insights for global community, health professionals, technology designers, and policy makers to better understand nurses' text-based encounters with care seekers in their everyday practice. This study also reveals opportunities for appropriate educational design for clinicians working with telemedicine. The participants appreciated a chance to practice non-technical skills such as chat technique and effective communication before clinical practice. Development of soft skills such as interpersonal skills and empathy can be critical to master the person-centered communication in text based medical assessments among nurses. Hence combination of different forms of education techniques including self-reflection approaches can benefit nurses' provision of patient-centered care in telemedicine. Since all respondents in current study were female, further research may aim to include male's perspectives on text-based care assessments.

**Keywords:** nurse, person-centered care, primary care, telemedicine, thematic analysis, text-based care assessments