Digital deterioration monitoring tools in care homes

Tara Marshall & Amy Dolben

Eastern Academic Health Science Network

SUMMARY

This paper uses thematic analysis to explore the effectiveness of using a digital platform to support the use of deterioration monitoring tools in care homes across Suffolk and Essex. The benefits to staff, residents and the wider healthcare landscape are numerous, but significant system-level challenges must be addressed in order to ensure the successful adoption and spread of these tools across the social care sector.

KEYWORDS

Care Homes, Deterioration, NEWS2, Digital, Work-as-done.

Introduction

Eastern Patient Safety Collaborative (PSC) is embedded within Eastern AHSN (Academic Health Science Network). As part of the national Managing Deterioration Patient Safety Improvement Programme, Eastern PSC has supported over 150 care homes across Suffolk and Essex to use a Blue Box to manage deterioration. The Blue Box is a comprehensive digital telehealth kit which undertakes multiple assessments, including the National Early Warning Score (NEWS2), the only nationally validated and standardised deterioration tool in the UK. This paper examines how digital tools could improve deterioration management in care homes through exploring the disparities and similarities between work-as-imagined and work-as-done as described by Hollnagel et al (2015).

There is limited academic evidence to support the effectiveness of using NEWS2 in care homes (Hodge, et al., 2019; Stow, et al., 2021). Therefore, this discussion provides a timely and relevant exploration of the utility of NEWS2 in the social care sector. The COVID-19 Pandemic has accelerated the use of digital technologies across health and care settings; this paper provides a judicious opportunity to examine digital deterioration monitoring technologies in care homes.

Materials and methods

The complexity of the English social care system has inhibited high-quality quantitative data collection (Moore, et al., 2019, p. 5). Therefore, this paper uses qualitative data gathered by PSC members via verbal feedback from care home staff across the region. The majority of these were collected shortly after Blue Box training in March 2021. In a small number of cases, short-term and longer-term feedback was gathered in Spring 2021 and Autumn 2021, respectively.

This paper uses a qualitative thematic analysis approach. Thematic analysis is used to identify patterns across qualitative datasets. In this instance: textual data is collected, collated, and analysed; codes are affixed to the data; and emerging categories and themes are identified.

Findings

Following three phases of data coding, 12 categories and three key themes emerged as per Table 1. These categories represent enabling and limiting factors pertaining to the successful implementation of digital deterioration monitoring tools in care homes.

Table 1: Categories and themes emerging from thematic analysis

Themes	Categories
Care home contexts	Care home specialism
	Relationship with and influence from provider and GP
	Staffing and time capacity
	Responsiveness to communication from AHSN
Deterioration management tools	Use of NEWS2 in non-acute settings
	Development of Personalised Care and Support Planning
	Requirement for and engagement with deterioration training
	Impact on staff and residents
Digital	Usability of digital tools
	Potential utility and sustainability of these tools
	Perceptions of digital tools
	Readiness for digital

Discussion

A disparity emerged between work-as-imagined and work-as-done. Care homes rarely completed a full NEWS2 assessment but were able to use modified NEWS2 scores to effectively manage deterioration. Work-as-done was adapted as per resident need to deliver improved experience. Staff found the Blue Box ergonomic which led to increased use; this in turn, reduced reliance on paper and lowered the risk of human error. Other benefits arising from use of digital deterioration monitoring tools included: enhanced communication with multidisciplinary teams; heightened staff confidence; and compliance with national policy mandates.

There were several barriers to care homes using digital deterioration monitoring tools. Most of these challenges were derived from organisational factors, and whilst some could be mitigated against at a care home-level, the most significant barriers might be more appropriately addressed at a system-level. The most common barriers to successful implementation were: resistance to digital; GP and other senior stakeholder buy-in; time capacity to implement and embed a new tool; and IT resource.

Several care homes successfully countered resistance to digital among staff and residents through exploring and developing their organisational culture and values. At the system-level, Eastern PSC has developed a deterioration dashboard which gathers data via automated streams; this dashboard could prove an invaluable tool in facilitating senior stakeholder buy-in. Furthermore, regional care home networks established as part of the Managing Deterioration Patient Safety Improvement Programme, provide useful insights to work-as-done. These insights could be used to inform system-level plans to address capacity and resourcing issues.

References

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