Taking a systems approach to designing national safety policy

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ABSTRACT

Any policy developed in a siloed manner and presented for implementation in a straightforward way is limited in its application in complex systems such as healthcare. In this article we describe a process for developing new patient safety policy by taking a user-centred approach and applying a system-based framework. The Patient Safety Incident Response Framework published in 2022 (NHS England, 2022), represents a complete redesign of how the NHS responds to patient safety incidents for the purpose of learning and improvement. The Framework will replace the current Serious Incident Framework (NHS England, 2015). Testing and revision were a formal part of the development cycle. The final version incorporates findings from an early adopter programme and independent evaluation and used SEIPS as a framework specifying the structure of a patient safety incident response system. We found the framework to be a useful tool for informing the revision of PSIRF; however, translating this work into policy form proved difficult and some nuance and direct links to SEIPS may have been lost.

KEYWORDS:

SEIPS, systems approach, patient safety, investigation, policy

Policy context

The current NHS approach to managing patient safety focuses on responding to patient safety incidents, as specified in the Serious Incident Framework (SIF) (NHS England, 2015). The SIF, and its predecessors, require organisations to investigate all patient safety incidents that are categorised as 'serious'. In 2023 a new framework, the Patient Safety Incident Response Framework (PSIRF) (NHS England, 2022), will replace the SIF in the English NHS. PSIRF represents a complete redesign of how the NHS manages patient safety.

Early development of PSIRF

The PSIRF has been in development for several years. In 2018 the National Patient Safety Team published 'The future of NHS patient safety investigation: engagement feedback' (NHS Improvement, 2018). This document described the findings from an engagement programme that aimed to seek the views from a wide range of stakeholders about how and when patient safety incidents should be investigated. This followed a previous 'investigation of investigations' led by the Team to provide a 'window on the system' (Vincent, 2004) of patient safety incident investigations in the English NHS.

Testing and revision: a formal part of the development cycle

Early adopters played a significant role in testing and revising the Introductory Framework (NHS England, 2020). The early adopter programme was integral in generating new knowledge about

how the Introductory PSIRF could be implemented into practice. Mechanisms including monthly workshops and a formal independent evaluation of the programme were used to capture the new learning. The insight generated was in turn used to refine the framework.

Using SEIPS in policy design

The Systems Engineering Initiative for Patient Safety (SEIPS) provides a framework for understanding outcomes within complex socio-technical systems (Holden, et al., 2013). The framework has several uses as described in a recent paper published by Holden and Carayon (Holden & Carayon, SEIPS 101 and seven simple SEIPS tools, 2021). We used the framework prospectively to consider the design of an incident response system.

Building on the insight gathered during testing and revision we began by first considering the different outcomes across the various dimensions specified in the SEIPS 2.0 model including outcomes for patients, professionals, and organisations across dimensions of proximity and desirability. We then defined response processes or sequences of tasks to produce outcomes. Two broad processes were defined including capturing insight and transforming into improvement, and engagement and involvement of those affected by patient safety incidents.

Working through the SEIPS model we then went on to consider the various work system factors that may influence the defined process, which will in turn shape the outcomes we defined. Finally, we considered the potential for feedback loops from processes and outcomes to the work system and how these may present pathways to adapt the design of the system to ensure outcomes remain desirable.

Conclusion

The SEIPS framework has much potential in informing the design of improvement and innovation in healthcare. Here we have described how the framework was used in developing national patient safety policy. We found the framework to be a useful tool for informing the revision PSIRF and incorporating feedback from our early adopter programme and independent evaluation. The framework was helpful in highlighting the extent and importance of collaborative work required to produce the intended outcomes of a patient safety incident response system. Furthermore, the feedback loops within the framework prompted consideration of how an incident response system may adapt based on outcomes from learning response processes. This learning was incorporated into the new PSIRF. However, much reframing was needed when writing the final policy documents. The structure of the framework itself did not translate into a useful 'story' when writing policy, which meant some nuance and the direct links to systems engineering may have been lost.

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