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BACKGROUND & OBJECTIVE

Health system innovations aimed at improving healthcare access are complex interventions with potential for unintended consequences; hence the need for near real-time evaluation approaches which capture evolving contexts and impacts. This study presents our first attempt at using complexity methodology in large scale data collection to inform this understanding.

METHODS

We aimed to conduct a 360° evaluation of the Alberta Surgical Initiative's Facilitated Access to Specialized Treatment (FAST) program. Between May 2022 and October 2023, we explored how to design a system to provide near real-time feedback on the implementation of a complex healthcare intervention; and how to operationalize data collection instruments across diverse patient populations and providers.

RESULTS

A diagrammatic representation of the Illuminate 360° approach for monitoring and adapting complex health system innovations was generated. Examples of the types of information that can be collected by this approach included micro-narratives about individuals' experiences which are linked with quantitative elaborations on the experiences through multiple choice questions (categorical data), dyads (continuous data), and ternary plots (compositional data).

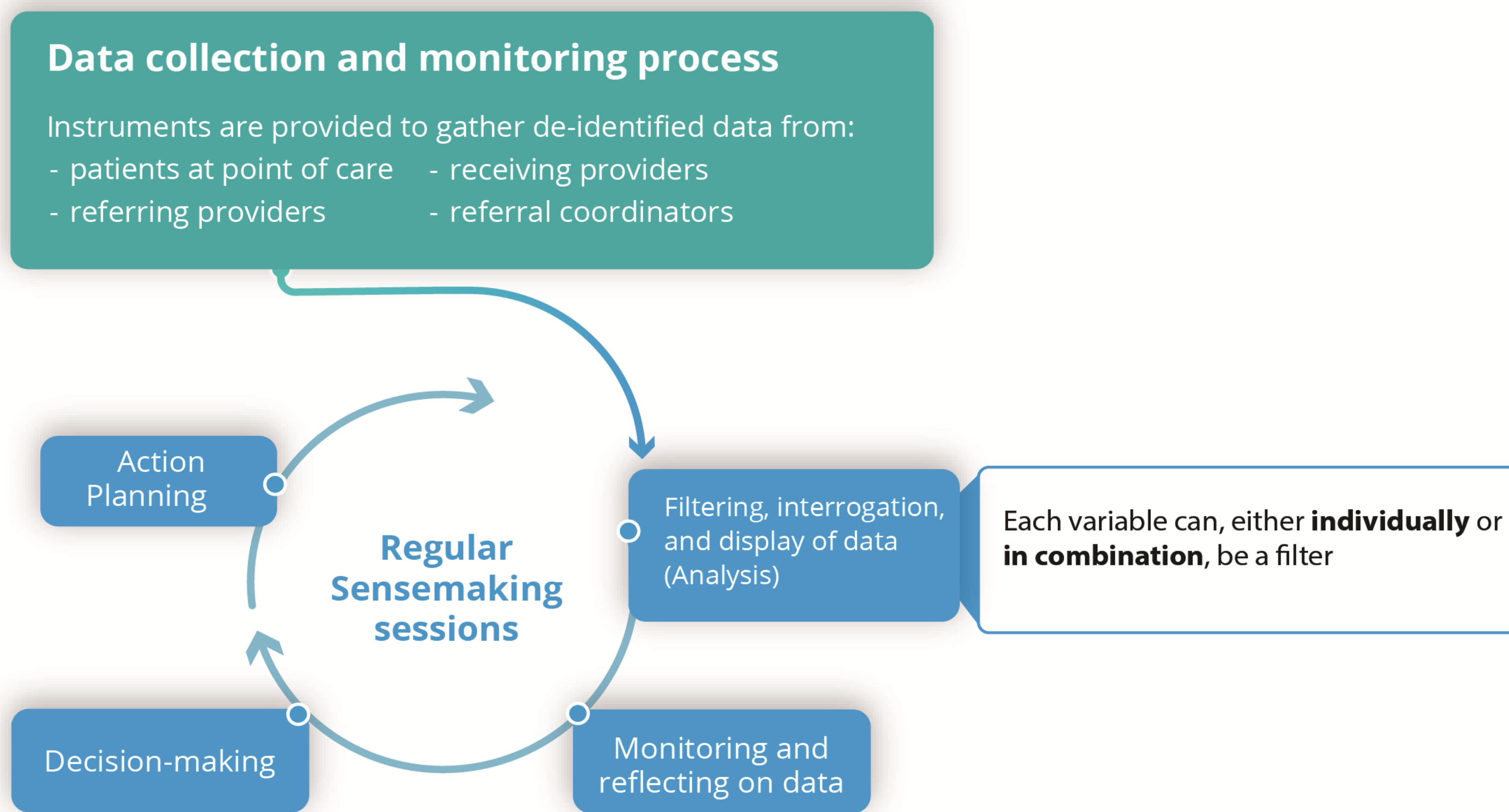


Figure 1: Iterative near real-time data collection and analysis

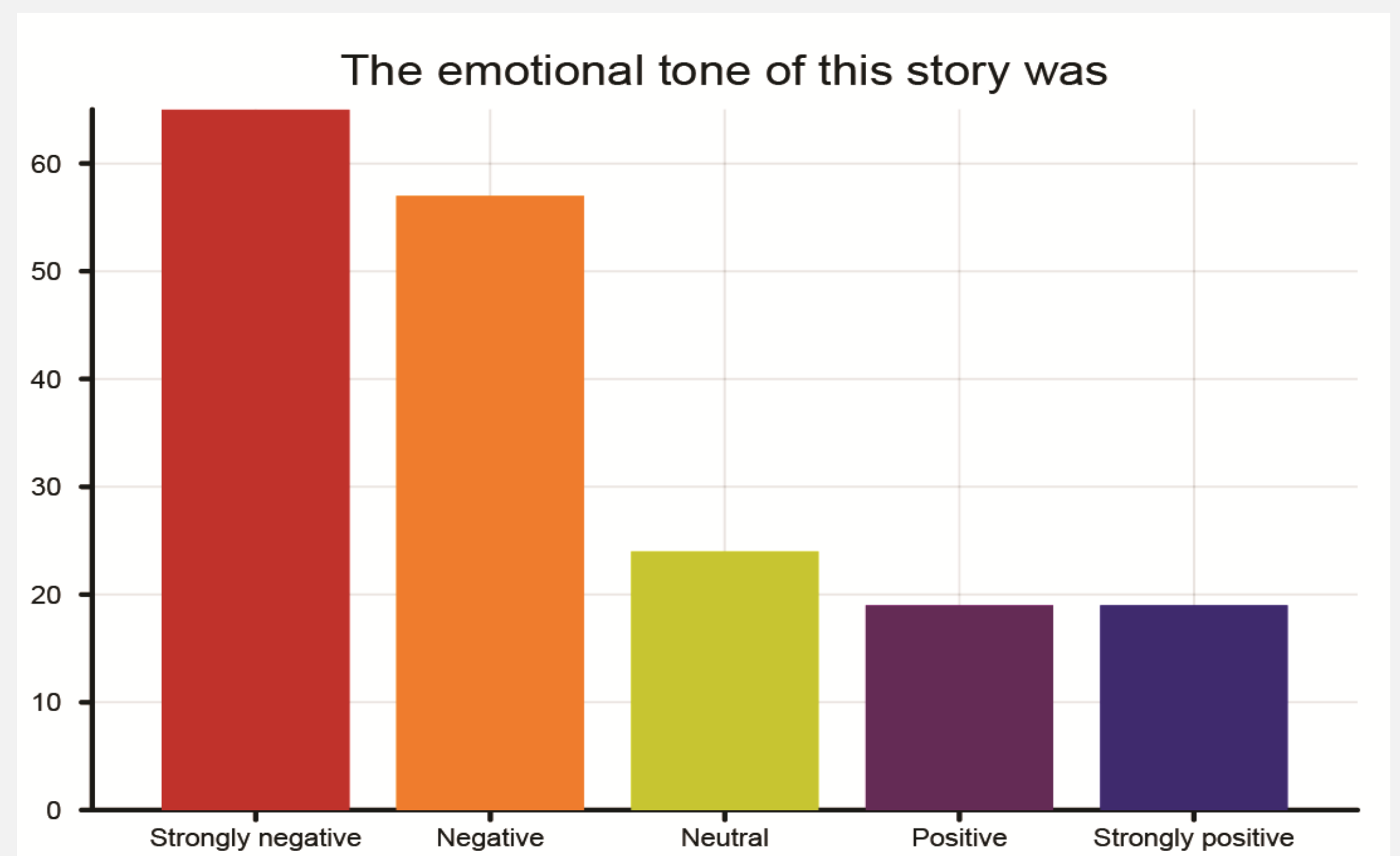
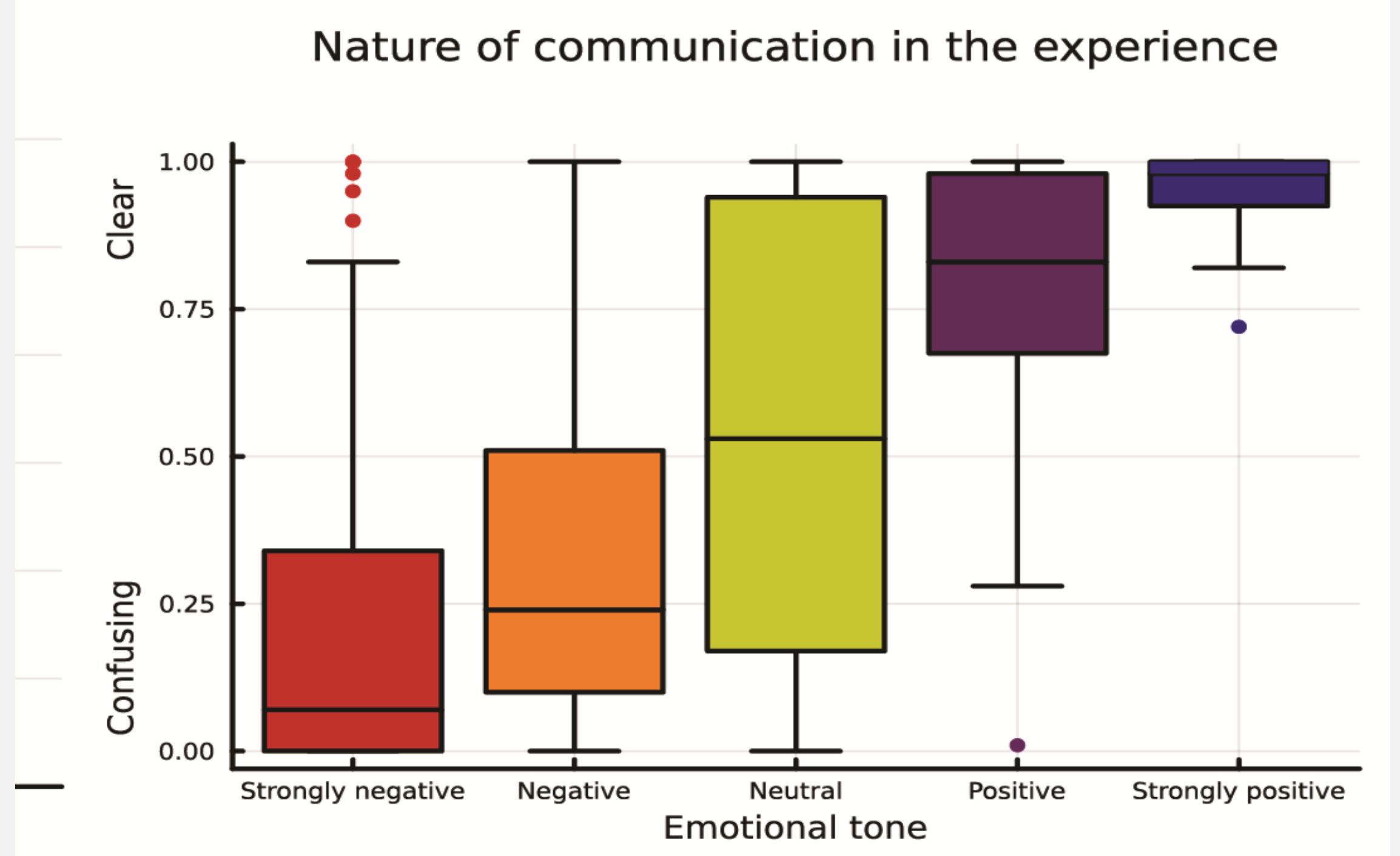


Figure 2: Interrogation and visualization of data patterns and associated narratives to inform understanding and action planning

Key message: Building capacity to generate near real-time information about evolving context and multifaceted impacts of innovations can provide critical insights for action in healthcare systems.

Figure 3: Examples of interrogation and visualization of data patterns by two filters: emotional tone and nature of communication



CONCLUSIONS

This study is the first of its kind in applying complexity methodology to the pressing challenges of generating near real-time information to support the roll-out of a complex intervention in healthcare. There is inherent value in strategies to collect ongoing information to understand evolving contexts and impacts of complex interventions in order to be able to adapt them to align them with desired end-state outcomes and to generate timely insights to inform healthcare improvement.

ACKNOWLEDGEMENTS

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