

Use of CATCH Decision Rule in Pediatric Emergency Departments: A Theoretical Domains Framework Perspective

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Background

Head injuries are among the most common type of trauma seen in emergency departments^{1,2}. Few children with minor head injury have a visible brain injury on CT (4%-7%), and only 0.5% require neurosurgical intervention.³ The Canadian Assessment of Tomography for Childhood Head injury (CATCH) rule is a prospectively derived⁴ and validated decision rule which, if successfully implemented, could improve the use of CT for children with minor head injury. Failure to translate research findings into routine practice is a common finding in the health services literature. Understanding the factors underlying use of a decision rule in this population is an important first step in development of strategies to address the problem.

Objectives

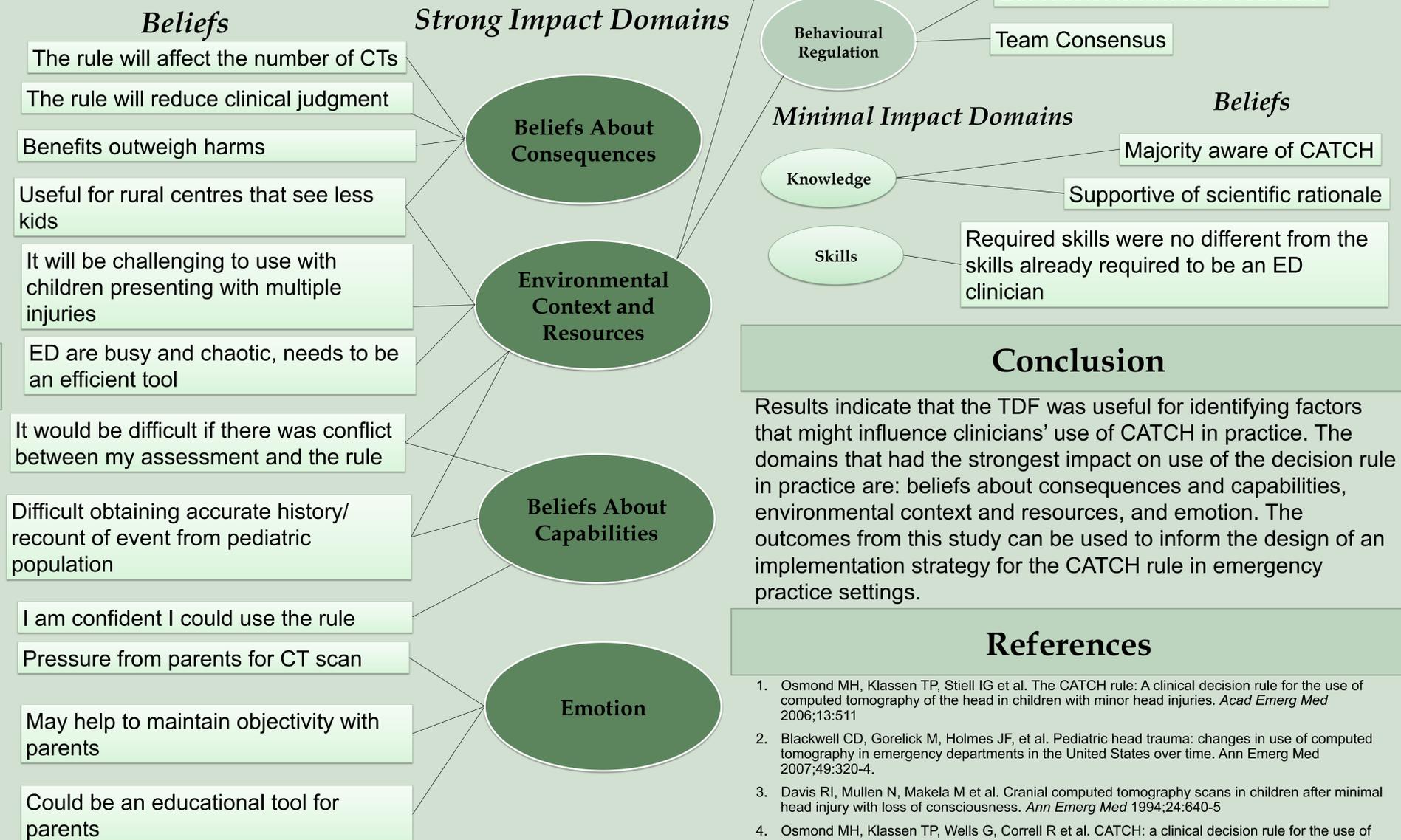
The purpose of this study was to use a theoretically-robust approach to explore emergency clinicians' beliefs and attitudes regarding use of the CATCH rule for children who present to emergency departments with minor head injury.

Methods

A semi-structured interview guide was developed using the Theoretical Domains Framework⁵ (TDF) to include questions about factors that might influence use of the CATCH rule. Focus groups and individual telephone interviews were conducted with physicians and nurses from academic and community emergency departments in Ontario and Nova Scotia. All interviews were audio recorded. Transcripts were anonymised and independently coded using Nvivo 10 by two reviewers. Relevancy of themes was based on frequency of beliefs stated across transcripts; presence of conflicting beliefs; and the likely strength of the impact of a belief on behaviour.

Results

Twenty-three participants (17 physicians, 6 nurses) were interviewed from 7 emergency departments (2 Nova Scotia, 5 Ontario). Domains with minimal impact on use of decision rule in practice include: knowledge; skills; and nature of behaviour. Domains with moderate impact on use of decision rule in practice: motivation and goals; social/professional role and identity; social influences; memory, attention, and decision making. Domains with strong impact on use of decision rule in practice: environmental context and resources; emotion; beliefs about capabilities; and beliefs about consequences.



Conclusion

Results indicate that the TDF was useful for identifying factors that might influence clinicians' use of CATCH in practice. The domains that had the strongest impact on use of the decision rule in practice are: beliefs about consequences and capabilities, environmental context and resources, and emotion. The outcomes from this study can be used to inform the design of an implementation strategy for the CATCH rule in emergency practice settings.

References

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