

A reporting guide for implementation science articles

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Many health and public health practitioners are interested in "what's new"— how evidence can be applied to practice and what works. Implementation science has been described as the scientific study of methods to promote the uptake of research findings into routine healthcare in clinical, organizational or policy contexts (1). In the *Canada Communicable Disease Report* (CCDR), this can include any process, procedure, policy or program designed to decrease the human impact of an infectious disease.

There is often a gap between the positive findings of an experimental study and outcomes in practice. This is in part because effective implementation is difficult. It requires significant knowledge, skills and effort to assess, plan, adapt, deliver, monitor and evaluate an intervention. Implementation science aims to understand and decrease the gap between evidence and practice. Excellent manuals have been developed, such as one by the RAND Corporation (2) and a variety of theoretical models have been proposed and are being tested (3,4). These have revealed that multiple factors are at play. For example, a systematic review identified that evidence-based clinical practice guidelines were almost three times more likely to be adopted if they were supported by a facilitator who used strategies such as audit and feedback, as well as interactive consensus building and goal setting (5). Clearly, implementation is both an art and a science.

Because there has been little guidance available to date for reporting implementation science articles, the CCDR has developed a 20-item checklist based on the literature and best practice in scientific communications. This checklist identifies the need to describe what is being implemented and why, who is being targeted and where, how the implementation was done, what the outcomes were, what lessons were learned and potential next steps (**Table 1**).

An implementation science paper is usually 1,500 to 2,000 words in length. As with all submissions, check CCDR's *Information for authors*, published at the beginning of a new volume in January of each year for general manuscript preparation and submission requirements (6).

Table 1: Checklist for implementation science papers

Reporting item	No.	Description	
Title/Abstract			
Title	1	Compose a title that includes the population, condition or primary issue addressed in the study.	
Abstract	2	Provide a 200 to 250-word abstract using the following sub-headings: Background, Objective, Intervention, Outcomes and Conclusion.	
Introduction			
lssue identification	3	Identify the topic of the study and why it is important.	
What is known to date	4	Provide a summary of the literature relating to the topic and identify any existing gaps.	
Rationale for study	5	Identify the rationale for the implementation study.	
Objective	6	State the objective of the intervention.	
Intervention			
Setting/ participants	7	Describe the setting and population used for the implementation study, and the rationale for both.	
Ethics review if indicated	8	For studies involving human participants, include a statement detailing ethical approval and consent.	
Intervention	9	Describe the intervention and how it was carried out. If applicable, state who offered the intervention, how participants were enlisted, what efforts were made to adapt the intervention to local needs, enabling factors and any training given.	
Outcome measures	10	Describe how the intervention was assessed. This may include descriptive statistics about the participants (or target population) as well as primary and secondary outcome measures. If appropriate, describe the analyses conducted to examine sub-groups, interactions and confounding factors.	
Outcomes			
Setting/ participants	11	Present the findings in enough detail to give a sense of the participants or target population, time and place.	
Primary outcomes	12	Present the primary outcome measure(s).	

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Secondary outcomes	13	Provide any secondary outcome measures, sub-group analysis, interactions or confounding factors if applicable.
Intervention experience	14	Describe any insights that arose as a result of implementing the intervention.
Discussion		
Summary of key findings	15	Summarize and interpret the key findings of the intervention and its implementation.
Comparisons	16	Compare the results of the intervention with previous findings (such as how the intervention was implemented in different populations or settings).
Strengths and limitations	17	Identify the strengths and limitations of the intervention and its implementation.
Implications and next steps	18	Consider implications, next steps or further areas of inquiry (such as a more in-depth evaluation, assessment in other contexts, potential for scale-up and sustainability).
Conclusion	19	Ensure the conclusion integrates the key findings and addresses the objective of the study.
Tables or figures		
Illustrating key findings	20	When appropriate, include an illustrative diagram or table summarizing key points.
Abbreviation: No., Number		·

References

- 1. BioMed Central. Implementation Science Journal. London: BioMed Central; 2015. http://www.implementationscience. com/.
- 2. Wiseman SH, Chinman M, Ebener PA, Hunter SB, Imm P, Wandersman A. Getting to outcomes[™]: 10 steps for achieving results-based accountability. Santa Monica, CA: RAND Corporation, 2007. http://www.rand.org/pubs/ technical_reports/TR101z2.html.
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