Title: The influence of contextual factors on implementation fidelity in a whole school approach to prevention of violence against women

Abstract:

Issue Addressed: Implementation fidelity relates to the degree of adherence to implementation protocols and content and helps to guide replication of evidence based programs. In settings based research, notions of fidelity have been applied more often to delivery of education content rather than whole of setting change. The aims of this paper were firstly, to analyse how contextual factors influenced implementation of a whole school program on respectful relationships education, and secondly given the findings, discuss whether a more flexible approach to implementation fidelity may have yielded increased school engagement.

Methods: The project was conducted in 19 secondary schools in Victoria in 2015. This paper reports on focus groups and interviews which were conducted with 81 school staff and 28 staff from the lead agency, community agency partners, and departmental staff to understand the contextual factors influencing implementation.

Results: The program followed a traditional implementation fidelity approach of considering core elements and some minor scope for adaption which engaged some regions and schools but not others.

Conclusion: An alternative notion of implementation fidelity, ‘fidelity to function,’ may have permitted increased flexibility to tailor the intervention components to suit different school and community contexts and potentially, increasing both the reach and impact of the program.

So What: Understanding how to apply notions of fidelity to guide whole of setting change are important considerations if programs are to be replicated to have wider reach and greater impact and effectiveness.

Key Words: Violence against women, whole school approach, implementation fidelity
Introduction:

There has been increasing recognition over the last decade of the importance of implementation research in health promotion.\textsuperscript{1, 2} Understanding the processes of implementation in real world settings is considered a critical research gap which hinders policy and practice in upscaling programs shown to be successful in trial conditions.\textsuperscript{3} Upscaling refers to the broader dissemination of a program after being originally piloted in a research trial.\textsuperscript{4} Relative to other areas of public health, there is a considerable gap in how to scale up settings based interventions and thus little guidance for policy makers in this area.\textsuperscript{5} The quality of the implementation process will determine whether outcomes are achieved. Thus, it is important to have a mechanism for providing structure to the implementation process and a way of monitoring whether these steps are being implemented as expected.

One of the key concepts in monitoring implementation is fidelity, the degree to which real world implementation of the intervention adheres to the original trial protocol.\textsuperscript{6, 7} Adhering to the original design of the program is considered one of the important aspects of upscaling programs, although in health promotion this poses challenges given the importance of adapting to local context.\textsuperscript{6} The tension between adhering to the original trial while allowing some flexibility in implementation to suit local contexts has generally been addressed by considering core and adaptive elements.\textsuperscript{6, 8} To date, most fidelity research has examined curriculum focused interventions. Curriculum focused programs typically describe core elements as those considered integral to the intervention such as curriculum content, and adaptive elements, those which can be varied such as timing of lessons, language modification, single sex or coeducational. There has been less focus on the use of fidelity in whole of setting change (such as policy change and community engagement) and whether these concepts are still applicable at the whole of setting change level.
One of the few studies that has applied implementation fidelity to whole school change examined policy and activity implementation of an obesity prevention initiative titled HEROES. This study examined how implementation fidelity varied according to school characteristics. The same approach to fidelity was used for both quantifying policy and activity implementation. What has not been investigated is whether the concept of implementation fidelity can be equally applied to policy implementation and curriculum implementation. The challenge of quantifying implementation fidelity in terms of adherence to certain policies and strategies is restrictive given the complex and dynamic nature of schools. It is also unclear from this research the degree to which schools can implement policy audit programs in full and how this relates to health outcomes of students. Whether fidelity of policy implementation can be conceptualised in the same way as fidelity of curriculum implementation requires investigation.

At time of writing, there is no research on how the application of fidelity concepts themselves influence the implementation process at a whole school level. Intervention literature advocating a systems science approach, argues that research ought to concentrate on ‘fidelity to function.’ This means focusing on the functional purpose of intervention components, rather than focusing on policy or activity content. Thus, replicating what the policy and program strategies are intending to achieve, not the actual strategies themselves.

The present case study, the implementation of a whole school respectful relationships program in secondary schools, enabled analysis of how the traditional approach to fidelity, of replicating core strategies while allowing some local adaption, influenced the implementation process. The results of the case study show that utilising the same core approach in each of the schools and districts produced very different implementation outcomes. The discussion of this paper presents an analysis of the strengths and limitations of the fidelity to core elements concept and whether a fidelity to function approach may have yielded different outcomes in this case study. This study responds to
recommendations for more implementation science research on public and social health interventions, particularly settings based health promotion, and extends on the work of the HEROES project by Lederer et al. by analysing different concepts of implementation fidelity in relation to a whole school intervention. The implications for future studies on implementation fidelity at a whole school intervention level are provided.

**Intervention Case Study**

Children and young people are recognised as an important population group through which the underlying drivers of violence against women can be addressed. There is a strong rationale for implementing violence prevention initiatives within schools. As Gamache and Snapp note, the development and maintenance of positive and respectful relationships in schools is likely to be of central importance in affecting sustainable violence prevention through respectful relationship modelling and teaching. This is supported by evidence which shows that early interventions targeted at children and young people can significantly impact their future relationships.

Respectful Relationships Education (RRE) is the holistic approach to school-based, primary prevention of gender-based violence. It uses the education system as a catalyst for generational and cultural change by engaging schools, as both education institution and workplaces to comprehensively address the drivers of gender-based violence and create a future free from such violence. Respectful Relationships Education is often considered as only what is delivered in the classroom, however evidence shows that to achieve maximum effectiveness, RRE should be realised through a whole school approach, which holistically addresses the culture, policies, and community partnerships alongside curriculum. The 2015 Respectful Relationships Education in Schools (RREiS) project was based on an earlier pilot program on respectful relationships education (RRE) implemented in 2010. The purpose of the 2015 RREiS project was to implement the curriculum
resource — Building Respectful Relationships: Stepping Out Against Gender-Based Violence — released in 2014 by the Department of Education and Training across multiple secondary schools in Victoria. Aside from the delivery of the curriculum, the 2015 RREiS project also included a focus on ‘school as a workplace’ as part of the whole school approach.

In total, 19 schools (20 campuses) were involved in the RREiS project, reaching an estimated 4,000 students and 1,700 school staff across three Victorian regions (diverse inner and outer metropolitan schools and one regional area). School based implementation ran over four school terms (Term 1, 2015 to Term 4, 2015). The project was facilitated by staff external to the school employed by the lead agency, Our Watch, but situated in the Department of Education Regional Offices. The Project Implementation Leaders’ (PILS) role involved supporting schools with advice and direction on delivering the following core components:

1. Organising professional learning for the whole school on the program
2. Facilitating a policy audit review process using a structured policy audit checklist
3. Brokering relationships between schools, community agencies and the Department of Education and Training to support community linkages
4. Organising the timing of the evaluation
5. Organising professional learning for school staff implementing the curriculum and supporting during curriculum delivery

This paper will concentrate on the whole school elements of tasks 1 to 4; professional learning for the whole school, the policy review process, relationships between agencies and schools, and the role of the evaluation. Implementation fidelity for education content has been covered in previous

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Stepping Out is a set of sequential teaching activities for use with students in years 8 and 9. It is designed to provide curriculum guidance as part of a whole school approach to preventing violence against women and building respectful relationships.
research and will not be the focus of this study. The initial contact with the schools was also identical in each school with an email introduction from the Regional Department of Education and Training Director introducing the program and the project lead. Beyond this introduction, the project leads were able to make choices of frequency of meetings with schools and timing of meetings. There was also scope for local adaption on which community organisations were involved in the program. One of the striking features of the implementation of this program was the wide discrepancy in engagement between each of the three participating regions. The intention was to have equal numbers of schools in each region, however, in one region there were 12 schools/campuses that participated, five in another region and only three in the other region. The results of the interviews and focus groups will also reveal considerable variation between schools in the level of engagement in staff training and the policy review process.

The first aim of this research study was to understand the critical contextual components influencing the implementation process and why there was such wide variety in engagement between the regions and schools. Examining the process of implementation via qualitative methods is important in understanding how to adapt and replicate programs into the future. The study adapted a taxonomy developed by Nilsen to analyse the key determinants influencing implementation:

1) characteristics of those implementing the initiative (the implementation leaders supporting schools with the program);

2) the characteristics of those receiving the initiative (the schools);

3) the characteristics of the context (the policy context and school community partners); and

4) the characteristics of the evidence base (evidence on whole school initiatives) and the process of implementation which includes the types of planning and monitoring processes used in implementation.
The second aim of this paper was to examine the implications of these contextual findings for fidelity concepts. The RREiS project provided an opportunity to apply the taxonomy developed by Nilsen to determine how the “fidelity to core elements” approach based on the 2010 pilot influenced the implementation process. The discussion section of this paper considers the strengths and weaknesses of this approach compared to a “fidelity to function” approach. The discussion section proposes that, in hindsight, “fidelity to function” may have suited this project better and considers whether other whole of setting change interventions might also benefit from this approach. The choice of approach has significant implications for how whole school interventions are designed, implemented, and evaluated. More specifically, fidelity of program implementation has not yet been examined in relation to whole school change for preventing violence against women. This study responds to this research gap and provides greater insight into implementation considerations which will assist future policy and program initiatives aimed at preventing violence against women.

Method

Participants

A qualitative based inquiry was conducted to examine the process of implementation of the whole school elements related to policy development, community connections, whole of staff training, and whole of school evaluation. To understand the perspectives of multiple stakeholders, interviews and focus groups were conducted with project staff, managers, teachers, students, community organisations and education department staff. There were five staff interviewed from the lead organisation, Our Watch. The project staff were interviewed on three occasions during the year and the program manager twice. Two focus groups (nine participants in total) and two interviews were conducted with representatives from community based organisations, these included not for profits with a general community focus such as community health organisations and specific women’s health and peak organisations, to glean their perspectives on the strengths and limitation of the
RREiS project. Project strengths and limitations were also covered in two focus groups (eight participants in total) and one interview with staff from the education department, and each of three regional education department directors.

At the completion of the project, nine of the 19 schools were involved in focus groups to invite their feedback. In each of the nine schools, the evaluator conducted at least three focus group interviews including: 1) the leadership team, consisting generally of the principal, assistant principal/s, student wellbeing staff, and curriculum leaders; 2) the teaching team, and 3) select students involved in the teaching and learning component. A total of 81 school staff and 71 students participated in the focus groups. The data from the student focus groups has not been included in this paper as these discussions centred on feedback about the lesson content which is not material to this paper.

**Procedure and Instruments**

Semi-structured interview guides were used for each of the participant groups. For project staff the interview questions covered their perceptions of progress for each school they were supporting and barriers and enablers for change, any positive change they could detect or any adverse reactions to the program. They were also asked to reflect on what role they undertook at each school and how they felt their contribution could have influenced the implementation process. For external stakeholders (community agencies and department staff) a similar list of questions was covered about their perceptions of the impact of the program. However, rather than focusing on each school, they were asked more broadly about what they had seen or heard in relation to how schools were implementing RREiS, which components were important to replicate, and whether the program itself was having any impact within their own organisations, for instance whether the topic of respectful relationships and gender equality was being used in other program areas.
For school staff, the questions focused more specifically on what changes they had noticed in their school, including positive and negative outcomes, both expected and unintended. They were then asked to provide feedback in relation to the perceived impact on the different elements of the program (the role of the PIL, professional development, curriculum, the audit process). The questions then examined what they felt were particular features of the school environment and culture that had either facilitated or hindered progress on the project. For school teaching staff and students, the focus groups focused more specifically on their experience of teaching and learning, the curriculum and what they had gained from the classroom sessions. The data from the student focus groups is not discussed in this paper.

**Data Analysis**

The interviews and focus groups were digitally recorded and transcribed verbatim. A thematic analysis was undertaken based on the taxonomy developed by Nilsen.\textsuperscript{24} Initial coding was undertaken by two researchers (AJ and DO) and discussed with the research team. The themes were then presented to the participants and steering committee for verification check. Ethics approval for the study was obtained through Swinburne University of Technology, Deakin University and the Department of Education and Training Ethics.

**Results**

The results are presented against each of the Nilsen’s\textsuperscript{24} domains that influenced the implementation process, including: characteristics of the project staff who were leading the initiative; characteristics of the schools; characteristics of the broader context; and characteristics of the process of implementation and the evidence base. The intent of this analysis was to uncover and examine the reasons why there were such variations in levels of joining the project across the three regions, and willingness to engagement in various elements of the whole school strategies.
**Characteristics of those leading and implementing the initiative**

The intent to deliver a whole school approach meant that heavy emphasis was placed on the role of the PILs to engage school leadership in a whole-of-setting change process. The backgrounds and experience of the PILs coupled with being located in the education department significantly influenced the implementation process (one leader had previously worked in the education department and had considerable knowledge of the region and the people working within the region). The other two PILs had experience in initiatives aimed at preventing violence against women. The PIL who had the prior experience with the education department was able to engage 12 schools in the initiative compared to 8 in the other two regions combined. Interviews indicated that participants from the education department, community agencies and PILs observed this advantage:

*She had worked here in this office so therefore as I said there’s a relationship. So many things are a bit built on relationships so you’ve already got the trust.* Focus Group, education department staff

*Yeah, look, it is interesting I think because I chose to sit with the senior advisors and I was able to do that simply because they knew me from before. That ensured a level of credibility for my role with principals.* Interview, PIL

The positioning of the PIL within education department worked very well in one instance but was not necessarily influential in all regions. In the two other regions, interviews revealed that the PILs established good working relationships with colleagues, although this did not translate into more schools engaging with in the program. In one region the schools had a history of working on family violence related issues with a community agency. In this region, there was already a stronger alliance between schools and community organisations relative to the relationship between schools
and the education department, impacting on the way they approached the project and the entry point for the school. This highlights the importance of understanding entry points, previous relationships and partnerships, the interaction of different implementation elements, and the importance of insider knowledge.

**Characteristics of the end users**

The characteristics of the school, its history, leadership, teachers and students, all influenced the implementation process. The PILs provided a range of explanations about why some schools were progressing more so than others, such as prior experience with similar programs, principal and staff who understood the subject matter, and the embeddedness of very strong health and wellbeing teams and programs. When these factors were in place, the school was able to embark on more substantial cultural change:

> There were male teachers in positions of authority [who] used aggression as their method to get what they wanted. That just became unacceptable. It took a lot of strength and persistence and self-belief to ensure that we didn't operate like that. Focus Group, Principal.

In cases where these factors were not in place, school engagement was more gradual. The level of support provided by the school leadership teams was crucial in the implementation of RREiS. There were a number of examples where teachers felt that they did not receive support from the leadership team, which impacted how effectively they could implement the whole school approach:

> We walked in really passionate and really excited and then [we were told] ‘No, it's not your job to change policy’... I just felt really deflated. In the end we just [focused on delivering the curriculum]. Focus Group, Teacher.
Characteristics of the broader context

School staff noted that increased community interest and support for the prevention of violence against women, including family violence, had created an enabling environment for the RREiS project. In 2015, when the project was delivered, there were multiple public announcements around the prevention of family violence. High profile campaigner against family violence, Rosie Batty, was named Australian of the Year and her advocacy helped initiate the Victorian Royal Commission into Family Violence. Subsequently, gender-based violence and school-based prevention garnered significant public attention. This created a background where schools could see that participating in the program was consistent with community norms expectations:

I think if you don’t [become involved in prevention] as a principal, you are out of step with community at the moment because you’ve got [Rotary Clubs] sending the message at the footy, you’ve got the hashtag ‘say no to family violence’. It’s everywhere anyway. Focus Group, Teacher.

I’ve spoken to parents – they were very much on board and felt that there was a need to [do] something [within the] school environment. Focus Group, Principal.

One of the interesting themes to emerge was how the program itself was changing the local context. Regional education department directors took a leadership role in promoting the program at the various networks and forums in which they participated:

To use it as a platform. To create connections across other sort of funding initiatives in other government departments...So I’ve also provided feedback to the area partnership from the work that’s occurring through the project. So it’s been about profiling of the work as well. Interview, education department staff.
Thus, the program itself was used as a vehicle to get the topic of gender inequality and preventing violence against women on other agendas across government and community agencies.

**Characteristics of the process of implementation and the evidence base**

The process of implementation was consistent across the three regional areas. Schools were invited to participate in the program through the regional education department. Once engaged, the next stage of implementation was providing professional development to school staff, followed by the delivery of the curriculum component, and the self-assessment audit process. There was some disagreement among the PILS and teaching staff on the best order of the training. The training components were (i) whole of staff briefing, (ii) whole school planning, and (iii) curriculum professional development. Some felt that the whole school briefing should be last and run by the teachers who had already received the curriculum training support. This could have meant that by the time of the whole school briefing there was a committed group of staff championing the issue. Conversely, others thought that introducing RREiS to the whole school first worked well.

The other major aspect of implementation was the meeting where the PILs guided school leadership teams through an audit tool, which critically examined a school’s internal policies and procedures using a gender equality lens. The audit tool was a critical component of the whole school approach, framing the school not just as a learning institution but as a workplace as well. While some schools engaged strongly with this audit tool and the whole school approach, this audit component failed to engage some other schools:

> “You can’t be running a school that has inequitable relationships [while at the same time] running the RREiS program” Focus Group, School leadership team member on why the audit process was useful.
I just wonder where all those workforce elements came from and why they were in there. Because they just didn’t seem applicable to a school-based environment. Focus Group, Principal.

Schools were engaged by different elements of the implementation objects. For some it was primarily the curriculum component, for others it was the results of the survey administered to every staff member on gender equity in the school21 and for other schools the implementation leader together with the audit process was a key means of engagement.

Discussion

The results of this pilot demonstrate how the implementation process was influenced by the interaction of each component of Nilsen’s 24 taxonomy. The interaction of the program materials and process of implementation combined with the characteristics of the PILs, schools, and broader context all influenced the engagement in the program. The implementation of a whole school approach through the support of a change agent (the PIL) was one of the critical components of the intervention, if the relationship with schools was well developed. The use of change agents is commonplace in whole school health promotion,28 and this study has shown how the previous experience of the person in the role combined with their location of employment has a profound effect on the implementation process.

Similar to previous research, the readiness of the individual schools was a key factor;29 in this case based on the schools’ prior experience with respectful relationships education interventions and comprehensive health and sexuality education.20 Similarly, leadership was noted as a key factor in influencing the implementation process which again is a common experience in school health
Another theme to emerge from the study was how the evaluation materials influenced implementation, with different schools utilising these resources in different ways. For some schools with little previous experience or understanding of the topic, it was the all-staff survey results on gender equity that were a revelation and prompted schools to begin a change process.

The focus on the process of implementation has highlighted some of the issues related to fidelity to core components compared to fidelity to function. This project focused more on fidelity to core components and processes, making sure that in each region, the content of all materials and process for engaging schools was the same. This is based on the assumption that replication of the content and process would yield the best possible outcome. A fidelity to function approach by contrast would have seen the project delivered differently in each region and school. A fidelity to function approach requires replication of the purpose, but how that purpose is achieved could vary.

As an example of fidelity to core components and process, the placement of the PIL within the education department was consistent across the three regions and the same worded email was sent from the regional director to recruit schools to the pilot in each of the three regions. Thus, both content fidelity was followed, the content of the email was the same across each region, and fidelity to process was followed, the placement of the position within the education department and the communication through the department were the same in each region. As an alternative, from a fidelity to function perspective, they could have kept the same purpose but varied the engagement strategies for each region. The function was to use someone in a position of authority, regional directors, to broker the initial relationship between the schools and the PILs so that trust and credibility was more quickly established.

It was apparent in one region in particular that the education department was not the means of establishing connections with the schools and instead, a local community agency was better placed-
albeit with a risk that the community organisation may have been less focused on prevention
compared to the objectives of RREiS. In this pilot, a fidelity to function approach might have yielded
greater school engagement in each region by allowing very different implementation processes.
Thus, in considering how to replicate RREiS, in some local contexts, it might be the connections
between community groups and agencies and schools that can be used for leverage, for other areas
it might be the department, and for other areas there may be other institutions that can help broker
that introduction. Replicating RREiS effectively would thus require an understanding of local
contexts and consideration of adaptations to content and process to suit these local contexts which
network analysis could illuminate. This implementation science analysis also reveals that programs
could be adapted to suit the characteristics of those leading the initiative, in this case the PILs. The
program could have been adapted to suit the unique skills and experience that each of these staff
members provided.

There are other components of the program that can equally be considered from a fidelity to core
components compared to a fidelity to function aspect. Some schools responded well to the
professional development provided as part of the RREiS program and others less so. Certain schools
responded well to the policy audit process while others were less engaged. Again, a fidelity to
function approach would suggest that finding different ways of structuring a reflection process on
school policies and culture might work better than mandating the use of a particular audit tool.

Future research can explore whether audit type approaches can provide the flexibility to cater for
the needs, characteristics, and structures of individual schools. However, there are advantages in
having a set of policy standards against which to compare school’s progress on a whole school model
as demonstrated through the HEROES project, and thus there are pros and cons to both a fidelity
to core elements approach and fidelity to function approach which may vary for each individual
policy and project. A process of stakeholder consultation could help determine for which elements
to follow a fidelity to core approach, and for which to elements should follow a fidelity to function approach in any given intervention. This potentially provides more depth to program planning that just considering core and adaptive elements as introducing the concept of fidelity to function requires greater analysis of the purpose of each project element and how to achieve these aims in different community and school contexts. Using the existing terminology, it will likely result in a rebalance of what is considered core and adaptive project elements.

One of the potential implications of a fidelity to function approach is that the process of implementation across settings and regions for a given project will vary considerably as they tailor the strategies to suit contextual factors. Understanding whether these variation and localised strategies are assisting the project or not will require strong monitoring processes. Given that adaptations are recommended to suit different characteristics of program staff, the community, and the school contexts (including stages of readiness for change), having the data to highlight where things are working (or not working) will be critical in ensuring that the best possible outcomes are achieved. Each setting would require an action research type process of integrating implementation and evaluation akin to action research cycles so that they can continually monitor whether their adaptations to the project are working and modify accordingly, which was the approach used in RREiS. It would also be useful to monitor how the program itself influences the local context. There was some preliminary evidence that the program itself was the catalyst for change at a systems level by placing prevention of violence against women on the agenda of other government departments and community organisations at a local level. Future research could monitor how policies and programs across settings and communities influence each other.
Study Limitations

As with any in-depth piece of qualitative research, even with the large sample size employed, not all experiences reported as part of this study will be generalizable. While this study was able to analyse how particular school and community dynamics influenced implementation, it was unable to uncover broader patterns related to differences in school types which the quantitative analysis of the HEROES project Lederer et al. 9 provided. In addition, similar to many studies of this nature, it was limited by short time scales and a lack of follow-up. Almost universally, post intervention follow-up data is only collected within a year of the program taking place35-37 and sometimes only immediately post program.38 Similarly, RREiS did not study change beyond the twelve month implementation period,21 and had this occurred, some interesting comparisons of change over time relative to some of the contextual factors mentioned in this study akin to a realist evaluation could have been explored.39

Conclusion

This paper has demonstrated the usefulness of a taxonomy, such as Nilsen 24 in understanding the process of implementation, and demonstrates the complexity of research in a dynamic and diverse environment such as secondary schools which are governed by social, political, and economic constraints. Understanding the implementation process and how different elements combine to build capacity, highlighted the critical role of the change agent and the evaluation processes in supporting engagement and change.21 This project also demonstrated how different project elements had differing effects in different regions and schools, under different contexts and highlights the need for greater adaption of strategies to meet the different contextual factors operating at a school and region level. In depth understanding of these implementation processes revealed an insight into the way that future replication should be considered where ‘fidelity to
function’ rather than ‘fidelity to core components and processes’ may be a more appropriate approach for some project elements, particularly those related to policy change and community engagement. There is a need for further research on the components of fidelity to function and the types of guidelines that can assist practitioners in this area. This study also demonstrates the need for ongoing research and longitudinal data to better ascertain whether there are changes over time and to understand the contextual factors influencing such change.

References