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Development, Evaluation and National Implementation of a School-Based Program to Reduce Violence and Related Risk Behaviours: Lessons from the *Fourth R*

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RÉSUMÉ

Le *Fourth R* est un programme global offert en milieu scolaire et destiné à contrer trois comportements à risque interreliés et caractéristiques de l'adolescence : la violence (l'intimidation, la violence entre camarades et dans le cadre de fréquentations), l'abus d'alcool ou d'autres drogues, et les relations sexuelles à risque. Ce programme recourt à une stratégie de réduction des méfaits axée sur la jeunesse, qui mise sur leurs connaissances, leur capacité d'entretenir des relations positives, et la prise de décision. Ce programme est donné en classe par des enseignants et repose sur 21 leçons conformes aux directives provinciales de l'Ontario en matière d'éducation physique et de santé pour les élèves de neuvième année. Il comporte également d'autres éléments applicables à l'échelle de l'école et relatifs à la formation des enseignants et à l'information aux parents. On entrevoit élargir la portée de ce programme et l'offrir à d'autres niveaux scolaires et d'autres secteurs (p. ex. au programme d'enseignement de l'anglais en 10e année) et à des groupes de jeunes particuliers (p. ex. dans le cadre du programme d'enseignement des perspectives autochtones). Cet article présente un aperçu du développement du programme *Fourth R* et des pratiques exemplaires qui lui servent de fondements. On y résume les résultats d'un plan d'expérience aléatoire auprès d'une grappe de 20 écoles dans le but de démontrer son efficacité à améliorer les connaissances, les capacités et les attitudes des jeunes qui y participent comparativement à ceux qui suivent le cour de santé typique. Ce programme a été conçu en Ontario et a depuis été mis en œuvre dans plus de 350 écoles à l'échelle de la province ; il a en outre été adapté et mis en œuvre dans six autres provinces dans le cadre d'une stratégie nationale de diffusion. L'article présente les résultats d'une enquête menée auprès de partenaires nationaux et mettant en lumière les facteurs contribuant à promouvoir avec succès la mise en œuvre et la diffusion du programme Fourth R, de même que les obstacles qui pourraient se dresser.

ABSTRACT

The *Fourth R* is a comprehensive school-based program aimed at reducing three interconnected risk behaviours in adolescence: violence (bullying, peer and dating violence), substance abuse, and unsafe sex. The program applies a youth-focused, harm-reduction strategy that encompasses knowledge, positive relationship skills, and decision-making. The foundation of the program is a 21-lesson curriculum that meets Ontario provincial education guidelines for grade 9 Health and Physical Education and is taught by classroom teachers. There are additional school-wide, teacher training, and parent information components. Expansion projects include extending the program to other grades and areas (e.g., *Fourth R* Grade 10 English Curriculum) and to specific groups of youth (i.e., *Fourth R* Aboriginal Perspective Curriculum). This article provides an overview of the development of the *Fourth R* and the best practice principles upon which it is based. Results of a 20 school Cluster Randomized Design are summarized to provide evidence of the efficacy of the *Fourth R* in producing gains in knowledge, skills, and attitudes among youth compared to youth who receive typical health class. Developed in Ontario, the *Fourth R* has now been implemented in more than 350 schools provincially, and has been adapted and implemented in six other Canadian provinces as part of a national dissemination strategy. The article presents the results of a survey of national partners that highlights factors that promote successful implementation and dissemination of the *Fourth R*, as well as potential barriers.

Introduction

There is widespread interest in school-based violence prevention for children and adolescents for several reasons. First, violence causes harm to direct and indirect victims, and prevention has the potential to reduce this harm. Second, once aggression becomes an entrenched pattern, it can be extremely difficult to alter. Third, adolescence presents a window of opportunity for youth to develop healthy relationship patterns as they begin to develop intimate relationships outside the family. Fourth, the school setting provides many logistical advantages for universal delivery of services. Despite this attraction, school-based violence prevention has not lived up to its promise in that effective programs have achieved neither widespread nor sustained implementation. Three separate but equally important components must to be addressed in order to achieve the desired outcome of integrated and sustainable school-based prevention programming:

- There is a need for theoretically-driven programs that are directed by developmental needs of the target group and best practice science;
- There is a need for programs that have been empirically validated;
- There is also a need for programs to be designed from the outset with attention to implementation and dissemination.

This article discusses the development, evaluation, and national dissemination of the *Fourth R,* a comprehensive school-based program designed to promote healthy relationships and prevent risk behaviours among adolescents. The *Fourth R* can be used to illustrate some of the critical issues in developing and implementing theoretically-driven, empirically-validated programs.

History and Development of the *Fourth R*

The *Fourth R* (for *Relationships*) grew out of the *Youth Relationships Project (YRP)*, a dating violence prevention program developed for youth with family backgrounds of maltreatment and violence. The YRP is an 18-session group-based intervention that was designed to reduce all forms of harassment, abuse, and violence by and against dating partners (Wolfe et al., 2003a). It was developed to address the particular needs of teens who had grown up with abuse and trauma experiences in their families of origin and who were thereby at greater risk for violence in their own relationships. The goal was to help teens develop positive roles in dating by providing information, building skills, and enabling the participants to be involved in a community service component.

The *Youth Relationships Proje*ct was evaluated in a randomized trial with 158 high-risk 14–16 year olds with histories of maltreatment (Wolfe et al., 2003b). The control condition was existing care, which typically included bi-monthly visits from a social worker and the provision of basic shelter and care. Youth in the study completed measures of dating abuse and victimization, emotional distress, and healthy relationship skills at bimonthly intervals, when dating someone. The youths were followed on average for 16 months post-intervention, and showed the intervention to be effective in reducing incidents of physical and emotional abuse over time (as rated by the teens themselves and their dating partners), relative to controls. An interesting adjunct finding was that symptoms of trauma and emotional distress were also lower over time compared to the control group, even though these symptoms were not directly targeted by the intervention.

The YRP's success in demonstrating changes in attitudes that are favourable to violence and in the abusive behaviours of youth at risk for violent relationships resulted in widespread interest in adapting the program for all youth, regardless of risk status. In adapting the YRP for a universal (and slightly younger) audience in a classroom setting, several changes were made. Compared to its predecessor, the *Fourth R* included a larger focus on the development of healthy relationships and resolving normative conflict, a broader range of violence (including bullying, harassment, group-based peer violence, and dating violence), and a much greater emphasis on role playing and skills development. In addition to violence, the *Fourth R* also included material on substance use and sexual behaviour, thus addressing this important triad of adolescent risk behaviours.

The first version of the *Fourth R* was piloted in a few schools in Southwestern Ontario in the Fall of 2001. Over the next several years the program was revised based on teacher and student feedback, and evaluated in a cluster randomized controlled trial (RCT) during the 2004-2005 school year. As of 2008 it was being implemented in over 350 schools in Ontario as well as in several other provinces. The results of this initial evaluation of the *Fourth R* as well as the successes and challenges of its implementation in schools across Canada are discussed in this paper.

Description of the *Fourth R*

The cornerstone of the core grade 9 version of the *Fourth R* is a 21-lesson skill-based curriculum that promotes healthy relationships and targets violence, high-risk sexual behaviour, and substance use among adolescents. This curriculum has been evaluated by Curriculum Services Canada and meets the Ontario provincial expectations for the Healthy Active Living strand in grade 9 Physical and Health Education. It is delivered by teachers who receive specialized training. Our contention is that relationship skills can be taught in much the same way as the other "three R's" (Reading, 'Riting, and 'Rithmetic), and establishing these skills as a fundamental part of the high school curriculum is equally essential. Furthermore, given the abundance of negative relationship models available to teens, it is crucial that they be exposed to healthy alternatives and equipped with the skills to develop healthy relationships themselves. Healthy relationships and skills should be seen as complementary to, not competitive with, success in basic academic skills of numeracy and literacy (Greenberg, Domitrovich, Graczyk, & Zins, 2005). The *Fourth R* is comprised of three units to address violence, substance use, and healthy sexuality/sexual behaviour. Together, these three units address the triad of adolescent risk behaviours that are connected to each other in terms of co-occurrence, but are also jointly rooted in peer and dating relationships experienced by youth.

Each unit contains similar themes of value clarification, provision of information, decision-making and an extensive skill development component. Connections among the three units (i.e., behaviour domains) are emphasized throughout. Accurate information and value clarification allow adolescents the opportunity to think about their own boundaries and comfort levels, and about the decisional balances involved in each of these behaviour areas. These processes are ongoing and integrated into skill development. Adolescents receive ample practice role playing ways to resolve conflict, both as participants and in the role of bystander. Furthermore, they have the opportunity to apply the skills in each of the three areas. For example, instead of learning assertive communication in general, they learn to practice assertive communication during realistic situations such as dating and peer conflict, pressure to use drugs or alcohol, and pressure to engage in sexual behaviour.

The other key components focus on the wider school community and parents. School interventions include staff and teacher awareness education, information about the program, and supplementary activities by the student led Youth Safe Schools (YSS) committees to increase links between community partners. A YSS committee is developed in each school with guidance from a teacher, based on a manual that provides guidance in recruitment, training, planning and conducting activities, and evaluating success (Gibbings, Crooks, & Hughes, 2005). Committees vary in how often they meet, but the minimum requirement is monthly meetings and a specific number of activities. For example, YSS committees organize guest speakers, school-wide media campaigns, field trips and agency open houses to raise the profile of violence prevention in their school. At some schools, the YSS takes on ambitious multi-year projects. For example, in one school the committee has undertaken to produce a violence prevention publication, Echoes in the Wind, in conjunction with its gifted program. Now in its third year of production, the editorial team invites city-wide contributions from students at other schools. In addition, an annual conference brings youth committees from throughout a particular district together to develop leadership skills and share ideas and successes. Parents are provided with an initial orientation to the program and with information on developmental changes in adolescence and parenting strategies relevant to raising adolescents.

A Foundation in Best Practice Principles

The *Fourth R* was designed to align with best practice principles, including skill development within a relationship context, positive youth development initiatives, comprehensive coverage of target and related issues, and being gender strategic (Wolfe, Jaffe, & Crooks, 2006). In the next section, we describe how these principles are operationalized in the *Fourth R*.

Strengthening Relationship Skills

The importance of skills has emerged as a fundamental principle of best practice in prevention programs, regardless of the actual behaviour(s) being targeted. The Information Motivation Behavior Skills (IMB) model is particularly useful for conceptualizing how to bridge the frequently observed gap between knowing what to do and doing it (Fisher, Fisher, Mischovich, Kimble, & Malloy, 1996). In simple terms, to promote the development of skills that will actually be used, adolescents need a strong foundation of accurate information, the building blocks of effective behavioural responses in difficult situations, and the blueprint of motivation to use these skills.

The *Fourth R* uses a number of strategies to increase the salience and interactive nature of the information component. One important aspect of information salience, the perceived cognitive authority of the source of information, is addressed by involving older adolescents in a number of ways. For example, the Teen Panel – a group of teenage parents who speak about contraception, choices, and the realities of teen parenting – is always received as a high impact experience for youth. In addition, older peers (typically grade 11 or 12 students from the Leadership Class) are used to assist in the grade 9 classes. Within the context of the high school peer hierarchy, using older students is a highly effective avenue for increasing the salience of information.

Most successful prevention programs have a skills building component, as improving social and emotional competence is a hallmark of effective prevention programs (Greenberg, Domitrovich, & Bumberger, 2000). Adolescents need the opportunity to learn new skills, such as assertiveness, communication, and problem-solving, and practice applying them in different situations. Simply being instructed in skills, discussing them, or even writing out responses are not likely to increase skills and self-efficacy. To foster skill development, it is critical to provide realistic opportunities to practice and receive feedback. Adolescents need to practice skills in as realistic a situation as possible to increase their feelings of self-efficacy that these skills will actually work when called upon in situations of conflict.

Role plays can be extremely effective for skill development, but they need to be carefully planned, introduced, and debriefed. A role play activity that gets out of hand can produce a counterproductive failure experience, or be so anxiety-

provoking that the experience is aversive. In the Fourth R, students role play a range of conflict situations relating to peer and dating relationships. Because the process of responding to a provocative situation such as bullying or pressure to use drugs is difficult, role plays are broken down into small steps. Students are given actual scripts for the first few exercises to reduce their discomfort and ease them into action one step at a time. Over time, students practice brainstorming solutions, trying responses, trying responses in the presence of other people, trying responses in the face of resistance, and analyzing what worked well and what did not. Importantly, they have ample opportunities to see their peers attempt to navigate similar scenarios, and discuss the relative merits of different approaches, both through watching their classmates and through video examples that were developed for the program. Through feedback from their teachers and peers, they are able to handle increasingly complicated and difficult situations. Teachers are also instructed on ways to integrate these role play learning opportunities into the daily activities of high school (e.g., in the gym or hallway).

Even with accurate information and the behavioural skills to make healthy choices, motivation is often a critical missing piece in preventing violence and unsafe choices. Motivation to behave in a certain way or make specific choices is a critical determinant of outcomes. Previous attempts to motivate teens have often relied on scare tactics. This approach is rarely successful, especially for those most likely to experiment, and is particularly ill-suited to adolescents' stage of cognitive development (Wolfe et al., 2006). Conversely, using peer culture to increase motivation can be a powerful tool with adolescents (Cuijpers, 2002).

The *Fourth R* targets motivation at the peer level in a number of ways. For example, each school's YSS committee involves students from different grades, and is youth-led. These committees or clubs provide a public face and forum for students interested in social action work, and they create media campaigns for the school that specifically target peer level influences. The manual provides strategies on recruiting a diverse group of students, and these students build on the universal prevention strategies used in the classroom to extend the material. Previous campaigns have included segments on peer pressure – some have even targeted the gap between what students think their peers are doing and what they are actually doing. The issue of cognitive authority is addressed by using the club to develop and implement these campaigns, since youth are much more likely to see information from their peers as relevant and useful compared to messages perceived as adult-driven. Student club members also present information or assist with role plays in younger grades in the capacity

of peer leaders. Similarly, motivation can be socially constructed at the community level, such as by hosting an annual violence prevention leadership awards night for students who have excelled in violence prevention and gender equity activities.

Ensuring Comprehensive Participation

Programs that address the various contexts within which youth function and the different factors that affect youth behaviour are more likely to be successful than those that focus on one specific context or determinant of behaviour (Greenberg et al., 2000). In addition to the school-wide component delivered through the YSS Committee, age-appropriate inclusion of parents and teacher involvement need to be targeted.

Age-Appropriate Inclusion of Parents. A comprehensive approach dictates the inclusion of parents, although deciding how to include parents can be challenging in light of the developmental stage. Developing an identity autonomous from their parents is a major developmental task for adolescents, but at the same time they need to balance this newfound autonomy with ways of staying connected to parents. We opted to use a primarily information-dissemination strategy with parents. Parents receive a presentation about the program at the orientation night for prospective high school students and their parents in the spring of grade 8. Once students are at a school that offers the *Fourth R*, their parents are sent newsletters designed to address a range of topics, including information about the changes adolescents experience, the trends for various behaviours, and what their adolescents will learn in the program.

Teacher Involvement. Teachers need sufficient training to successfully implement a program such as the *Fourth R*. Similar to the discussion of the IMB model of behaviour change for adolescents, teachers need training that addresses all three of these areas: information, motivation, and behavioural skills. Without adequate training and booster sessions for teachers, the most innovative (and effective) components of programs can get dropped (Greenberg et al., 2005). Our teacher training uses the same principles as our program: teachers are provided with sufficient background information, and given opportunities to practice and receive feedback on their attempts to facilitate role plays.

Being Gender Strategic

Finally, prevention with adolescents requires an understanding of the gender forces they are facing, and programming to match their world view about

these gender realities (Crooks, Wolfe, & Jaffe, 2007). High school students are developmentally at a stage where notions of gender tend to be very rigid. The typical high school environment rewards behaviours consistent with the male "jock" ideal, while devaluing activities seen as more feminine, leading to an aggressively homophobic culture. At the same time, adolescents report that girls hit boys as or more often than boys hit girls in their relationships. Because they lack the gendered understanding of important differences in the nature of this violence, both boys and girls will be hypersensitive to messages that they hear as "boy bashing" (Tutty et al., 2002). The challenge is to understand this reality, yet increase awareness of adolescents' understanding of gender and societal constructs of gender. In the *Fourth R*, we target gender awareness through media deconstruction activities, discussions about different expectations and standards for boys and girls, and sometimes using different activities for boys and girls. Opportunities to discuss these issues in single sex groupings provide increased comfort while debating sensitive issues.

In summary, the *Fourth R* was based on an empirically-validated program for secondary prevention of dating violence among higher risk youth, and has been expanded on the basis of identified best practice principles to reach all youth more universally. In particular, skills-based programming including an emphasis on positive youth development, a comprehensive approach, and being gender strategic were identified as guiding principles. After a few years of piloting and revisions, the result was a theoretically sound program that was ready for a rigorous quantitative evaluation.

Overview of Current Evaluation Findings

Our research team has completed the initial evaluation of the *Fourth R*, conducted with over 1500 students in 10 intervention and 10 control schools. A cluster randomized controlled (RCT) design was used to assign the 20 high schools (i.e., clusters) to the intervention or control condition. Pre- and post-testing were conducted in the fall of the students' Grade 9 year and approximately four months later. Results examined gains in attitudes, knowledge, and engagement in the classroom exercises related to the central issues of relationship violence, sexual health, and substance use/abuse measured soon after students completed the program. However, this initial phase of the evaluation does not examine behavioural outcomes *per se* because the time frame is too short to assess actual changes in self-reported risk behaviours. Follow-up data from this sample will be reported in 2008 to determine the extent to which students in the program reduced their overall risk behaviours two years following program delivery, relative to control schools.

Findings from the initial phase of the evaluation indicate that *Fourth R* students learned the materials and had significant gains, relative to controls, in knowledge and attitudes pertaining to violence, substance use, and sexual health. Notably, *Fourth R* students were better able to identify subtle forms of abuse in dating relationships, compared to the control group. Students in the intervention schools also enjoyed their physical health education classes more than students in the other schools, and found the exercises and activities to be very engaging. Given the importance of motivation in invoking behavioural change, these student satisfaction ratings are an important piece of establishing an effective and sustainable program.

Finally, and perhaps most importantly, we found significant gains in skill acquisition among students from intervention schools, using a sub-sample of 200 students (100 per condition). To assess skill acquisition under realistic circumstances, we created a behavioural analog using peer actors. The actors invited students (two at a time) to a party, and pressured them to engage in risk behaviours (e.g., to bring alcohol, drugs, money, etc.). Blind raters coded these 5-minute paired interactions in terms of student demonstration of skills taught in the program (i.e., negotiation, delay, refusal) as well as their extent of yielding and compliance to these negative pressures. The findings support the claim that the students do acquire important skills in the program. For example, *Fourth R* students were 2.2 times more likely than controls to show at least one negotiation skill during role-play interaction; 4.8 times more likely to show at least one delay skill during role-play interaction (girls only); and were 50% less likely to yield to the coercive pressures being perpetrated against them. The groups did not differ in terms of complying behaviours. Half of the tapes were coded separately by teachers (who were blind to whether the youth was a *Fourth R* participant or not) on concepts such as the application of skills and communication. Teachers also provided a global rating of the likelihood that the student on the video would make a healthy decision in a real situation similar to the one being depicted. For all of the dimensions coded by teachers, a significant main effect emerged favoring the students who had participated in the *Fourth R*. Further details on the design and findings are available in Wolfe et al. (under review).

The *Fourth R* has also been found to exert a school-level effect above and beyond the gains of individual students. In another investigation, we examined the relationship between multiple forms of child maltreatment and violent delinquency in adolescence (see Crooks, Scott, Wolfe, Chiodo, & Killip, 2007). Prospective data from the same students were used to examine the additive influence of individual-level variables (i.e., childhood maltreatment,

parental monitoring, sex of youth), and school-level variables (i.e., students' sense of safety across the entire student body) on engagement in delinquency. Students were assessed on these variables at the beginning of grade 9 and four to six months later. Consistent with the literature in general, results at the individual-level identified being male, experiencing maltreatment in childhood, and poor parental nurturing as important predictors of violent delinquency. School climate also played a significant role in predicting delinquency: schools in which students felt safe had fewer grade 9 students engaging in violent delinquent behaviours. Notably, the impact of cumulative forms of childhood maltreatment on risk for engaging in violent delinquency was greater among those schools that had not participated in the *Fourth R*, suggesting a school-wide buffering effect for the most vulnerable students. That is, students in *Fourth R* schools were less likely to engage in violent delinquency than students in non-*Fourth R* schools, all other risk factors being equal. Interested readers are referred to the forthcoming paper (Crooks, et al., 2007).

In summary, evaluation to date supports the contention that the *Fourth R* leads to important individual gains in knowledge and attitudes towards violence, substance use and sexual health. In addition to self-report data, we have evidence that *Fourth R* participants show superior skill acquisition compared to participants in typical health class. Finally, there is evidence of a school-level effect in that being a *Fourth R* school may moderate the impact of detrimental influences such as multiple forms of child maltreatment. Our two-year follow-up of self-reported engagement in various risk behaviours (currently being analyzed) will provide information about the sustained impact of the program.

Extensions of the Core Program

The core *Fourth R* program was developed for delivery in a universal setting with grade 9 or 10 students. We have now completed several adaptations and extensions to fulfill two additional purposes. First, several adaptations were developed for specific groups of youth based on the core program, in recognition that specific subgroups or settings have more distinct needs than can be met with a universal approach. These adaptations include a version for use in Alternative Education settings, an Aboriginal Perspective *Fourth R* version, and a version that matches the Ontario Catholic curriculum expectations (see Table 1 on p. 128 for adaptation details). The Aboriginal Perspective program, for example, retains the skills-based focus of the original program, but situates the program in a cultural identity framework (Crooks, in press). The historical context of Aboriginal peoples in Canada is addressed as a contributor to specific vulnerabilities and risk behaviours, and there are additional opportunities to

bring elders and community members into the classroom. A peer mentoring program serves as an adjunct component to the classroom-based instruction to promote positive relationships between youth at risk for leaving school and older, prosocial peers who are well connected to school, all under the guidance of the First Nations Counselors and a community mentor at each school.

The second type of expansion is predicated on the finding that the most effective programs are delivered over the course of several years, with each year being tailored to the specific developmental stage of the youth. Expansions in this vein include a Grade 8 curriculum for Healthy Living, and Grade 10 and 11 English Curriculum versions (see Table 2 on p. 129 for a description of extensions). The decision to use English class in Grade 10 and 11 was based in part on the fact that English is a required course in Ontario (whereas Physical and Health Education is optional after Grade 9). In addition, switching from Physical and Health Education to English offers a shift in focus and learning modalities. The emphasis on critical analysis skills and literacy in the English curriculum versions helps to generalize the skills-based instruction received in Grade 9. In comparison to the original core program, these newer innovations have been the subject of summative evaluations rather than a full RCT. Educators using the program and their students have completed feedback forms and numerous student focus groups have been conducted. The preliminary findings suggest that educators and students alike enjoy the programs and find them beneficial. Further revisions and more rigorous evaluations are underway.

National Implementation Project

Early on in the development of the *Fourth R* significant interest emerged in disseminating the program to other provinces, based on the empirical basis of the precursor (i.e., the YRP) and the adherence to best practice principles. Interest from educators coalesced along more logistical lines. Educators liked that the program was curriculum-based, met Ministry guidelines in Ontario, and was taught by teachers rather than outside professionals. A large donation from a private foundation in 2003 initiated efforts towards launching a national dissemination, envisioned as a roll-out that would involve one additional province each year. The prototype was to identify and work with a local partner in launching a small pilot, and then to modify the curriculum to meet provincial standards and cultural and geographical needs based on input from educators and other involved parties involved in the pilot. The plan involved a three-year partnership in each province to help build local capacity and plan for sustainability, rather than a short implementation phase.

Within this three-year window, training was conducted by the central group with the aim of developing local trainers to assist in further dissemination and sustainability.

From the beginning, two realities were very clear. First, sticking to one province per year would lead to missed opportunities in that potential partners in several provinces were prepared to mobilize an effort immediately. As seen in Table 3 (see p. 129), plans were amended to launch several locations simultaneously. Indeed, throughout the dissemination phase the constraining factor has been the resources of the central team rather than the availability and enthusiasm of willing partners across the country. Second, there was a need for flexibility in identifying the appropriate local champion. Across the different provinces, these partnerships have emerged differently. In Saskatchewan, partnering with one of the Five Research Centres on Violence Against Women provided the infrastructure for the project, whereas in B.C. researchers laid the initial groundwork, but the school-based implementation was guided by a retired educator who was hired as a consultant. In Quebec, we were approached by a community service organization because one of the directors had heard about the *Fourth R* at a conference and felt that the program fit their larger mandate to work with all the school boards. Our foray into Nova Scotia was largely serendipitous; one of the most supportive proponents of the initial project in Saskatchewan took a position as a director of a school board in Nova Scotia and wanted to continue his involvement with the project by bringing it to his new board. In each case, the expansion process has given us the opportunity to step back and look at the implementation process outside of the highly supportive local community within which the original program was developed, piloted, and evaluated.

Implementation Successes and Challenges

There has been increasing recognition among program developers and evaluators that having effective programs is only one piece of the puzzle in developing a large scale prevention effort. Getting effective programs into schools and maintaining them in a sustainable fashion with program integrity presents a huge set of challenges. In the case of the *Fourth R*, it was originally developed in a large school board that already prioritized violence prevention, and had the first designated full time violence prevention learning coordinator in the province. As such, there were already comprehensive violence prevention programs at many grade levels, and system-wide support for new initiatives. However, program adoption and sustainability require an appreciation of system dynamics that vary greatly across schools and boards.

Some researchers have noted that a school-based program needs to be attractive and seen as effective by two different groups of stakeholders (Han & Weiss, 2005). First, the person or people choosing to bring the program into a district or particular school need to see the benefits. Some of the important factors in this regard include the research behind the program and whether it is taught by teachers or requires external consultants (e.g., Tutty & Nixon, 2000). Second, the individual classroom teachers need to find the program easy to implement and believe that it is effective. Teachers need to believe that the program will be effective in its goals to reduce violence prior to implementing it (Clark & Elliott, 1988). Once they have implemented the program, they need to see evidence of its effectiveness to motivate their continuation with the program (Kealey, Peterson, Gaul, & Dinh, 2000). These two groups of stakeholders may have very different needs or priorities – an administrator might be worried about the cost to a school while teachers might be more interested in the clarity of the lesson plans. The *Fourth R* was designed from the beginning with several features to streamline the implementation process, such as being taught by teachers. However, it is still important to understand the strengths and challenges involved with widespread dissemination of the program.

In an attempt to identify the specific factors that promote the adoption of the *Fourth R* in other provinces, as well as possible barriers, we surveyed our national partners in the Spring of 2007. Surveys were sent to 75 stakeholders in 7 provinces, with different versions for directors/superintendents/consultants, and educators. Approximately 87% of survey recipients completed and returned the survey. This provided a unique snapshot of perspectives from partners at different stages of the process. For example, at the time of the survey, partners in Saskatchewan and B.C. were heading into their third year of implementation, compared to partners in Manitoba, Quebec, and Nova Scotia, who had been involved in several meetings and presentations and developed plans to implement the program in a select number of pilot schools, but who had not actually delivered the program yet.

The superintendent/consultant version of the survey (completed by 25 respondents) asked respondents to rank order up to five factors that were instrumental in choosing to bring the *Fourth R* to their district, and identify potential barriers from a list that made the program a "difficult sell" for the district. Additional questions focused on perceived sustainability of the program. That is, respondents were asked to rate the likelihood that the program would be in place in their districts next year, as well as in three years. They were asked to identify strategies (from a provided list) that could increase sustainability, as well as potential barriers to sustainability. The

educator version (N = 36) asked respondents to identify the best features of the *Fourth R* as well as possible challenges to implementation at the classroom level. They were asked to identify benefits that they perceived for students, as well as for themselves. There were the same questions about promoting sustainability and potential barriers to sustainability as for the other version. Any items that required participants to choose from a pre-existing list also provided the opportunity for them to include additional answers. Copies of the actual surveys are available from the lead author.

In considering the results of our survey, it is useful to think about three phases of implementation – the pre-implementation phase (whereby the program is selected), the supported implementation phase (during which there is active support for the program) and the sustainability phase (also known as the institutionalization phase). Given the wide disparity across respondents with respect to these phases, some of the items are difficult to compare. For example, while many of the Ontario-based educators identified the fit between the program and the provincial curriculum standards as one of the best features of the program, educators in other provinces would not be expected to identify the same factor because the process of fine-tuning the match between the program and other provincial standards is still underway.

Information about the pre-adoption phase was gathered primarily from the consultants/superintendents who were involved in bringing the program to the region, or in the event that the program had been running for a while, were charged with overseeing the program on a broad level (henceforth referred to in text and tables as the decision-makers). Of the 25 decision-makers (72% female) who completed this version of the survey, 72% indicated that they were very involved with bringing the *Fourth R* to their community, 20% indicated that they were somewhat involved, and only 8% indicated that they were not at all involved. The mean years of experience in education was 22.4 (SD = 9.2). Thus, for the most part, these respondents represent highly experienced stakeholders in decision-making position who chose to implement the *Fourth R* rather than another program.

According to this group, the most important factor in their decision-making was the research base of the *Fourth R* and the perception of the program's potential to have a positive impact on students. The curriculum-based nature of the program was also considered important. With respect to barriers, the one factor that emerged beyond all of the other potential barriers was the time required to implement the program. We think that this response reflects the bias that violence prevention and health education is still seen as an add-on

to the broader health and physical education domain, rather than viewed as an integral component worth 25 or 30 hours of instruction. The length of the program was based on the recommended guidelines of the Ontario Ministry of Education, and other provinces have similar guidelines. Thus, it is not that the program itself is lengthy compared to the mandated requirement; rather, people are still shifting their perceptions about the appropriate amount of health instruction in the classroom. Table 4 (see p. 130) contains the factors that were endorsed by more than 20% of the respondents as a top five reason for deciding to implement (and corresponding average rankings), as well as the frequency with which various barriers were identified.

Teacher data were collected from 40 teachers (73% female) with 13.5 years of experience (SD = 7.5). Of the 40 teachers, implementation data were used from the 25 who had taught the core and grade 8 programs because the questions about perceived benefits and barriers were designed to match these programs. In addition, responses from teachers implementing the adaptations were not included because these programs are still very much under development and only a handful of teachers have used the resources, making the numbers less meaningful. Teachers were asked to rank the top five most attractive features of the program from a pre-existing list. However, because nearly a quarter of the teachers completed that section as a rating scale rather than ranking, the rankings were collapsed to include simply whether or not a teacher identified the factor as important. Thus, it is difficult to interpret the percentages of endorsement as the intention was to force teachers to choose the best features rather than all of the features they found pleasing. Nonetheless, the responses show that clearly written lesson plans were the top rated feature.

Similarly, teachers were asked to indicate any implementation barriers, without being given a limit to the number of factors they could choose. The most highly endorsed implementation barriers related to timeframes, similar to the issue identified by decision-makers. Other implementation barriers identified by teachers reflect the stage of development of the program with various partners; for example, both of the teachers who identified mismatch with local culture as a barrier were from Vancouver and we are currently working with our B.C. partners to make substantial cultural adaptations.

Additional information was gathered about perceived benefits for students and teachers. As seen in Table 6, (p. 132) educators felt that the provision of accurate information coupled with skills practice were the most important benefits for students. Interestingly, the majority of respondents indicated they had enjoyed benefits as well, ranging from learning more about relationship violence to

having students who are more engaged in the course material. Additional comments included statements such as, "created personal awareness" and, "opportunity to empathize with victims; stronger bond with teacher."

With respect to sustainability, data were used from all 40 teachers as well as the 25 decision-makers. The majority of respondents felt that they would either likely or definitely be using the program in 1 year (94%) and in 3 years (73%). Respondents who noted they were unsure or unlikely to be using the program typically identified that they were not going to be teaching the course at all. Educators and decision-makers identified many of the same strategies for increasing sustainability, although they placed different emphasis on the strategies. Updated materials, ongoing training opportunities and financial resources were all identified by half or more of the respondents. Comments related to updated materials particularly emphasized the importance of keeping media literacy activities current. Table 7 (see p. 133) identifies the perceived strategies and barriers related to sustainability. Overall, the responses support the importance of ongoing training and updates, consistent with the notion of implementation as a journey rather than an event (Fullan & Miles, 1992).

The responses to our national implementation survey in general reflect a high degree of satisfaction with and confidence in the program, while also showing vigilance to ongoing sustainability issues. It is important to note that all of the respondents are from communities that have received significant support during the planning and implementation phases of adoption. Other schools throughout Ontario have simply ordered the program materials (with or without training), and their experiences might be more diverse with respect to the success they have had in implementing the program.

Future Directions in Programming and Research

Moving forward, the *Fourth R* will maintain a dual focus on both programming and research. Programmatically, we will continue to develop and refine offshoots of the program with the aim of having developmentally appropriate programming for all adolescent age groups, within a cross-curricular approach. Specialized programming for unique groups will augment this developmental approach. An emerging focus for the team is on building in sustainability from the outset of an implementation phase with new national partners. To that end, we will use the results of our national implementation survey to outline some of the processes in challenges in our site coordinator manual to address long-term planning. A final focus is on continuing to refine and standardize our train-the-trainer model, as our capacity to provide training at a national

level continues to be a limiting factor in the widespread dissemination of the project. Current and future research directions include continuing to evaluate the effects of the program in different locations and in different ways, such as researching issues relating to implementation, dissemination, and sustainability. Currently we have educators and students from our national partner sites completing the same evaluation measures to facilitate regional comparisons. In summary, we will continue to balance development, evaluation and dissemination activities, as all have been shown to be critical components of the success of the *Fourth R* to date.

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Table 1. Description of adaptations to original grade 9 Fourth R program

Adaptation	Number of Lessons	Differences From Original Program
Alternative Education	24 lessons	• More examples and role plays to illustrate concepts and practice skills • Additional lesson addressing ecstasy use • Matches academic needs of students in Alternative Education settings with a variety of instructional strategies • Additional lessons on bullying currently under development
Aboriginal Perspective	33 lessons	• Incorporates focus on cultural identity and bicultural competence • Opportunities to bring community members and elders into the classroom • Provides historical context for some risk behaviours – most notably tracing the multigenerational trauma impact of residential schools and the link to substance use and sexual abuse • Specific lesson on suicide prevention • Incorporation of culturally relevant learning experiences (such as sharing circles) • Adjunct peer mentoring program that involves pairing older and younger students, and a community mentor
Ontario Catholic	20 lessons	• Matches Ontario curriculum expectations for grade 9 Physical and Health Educational in Catholic schools

Table 2. Description of expansions of Fourth R program to other grades

Expansion	Number of Lessons	Description of Program
Grade 8 Healthy Living	7 lessons on violence prevention 7 lessons on substance use	• Meets Ontario Ministry of Education expectations • Specific instruction in social problem solving • Skill development through a playbook to set the stage for more demanding role plays in Grade 9 • Topics include developing and maintaining friendships, conflict resolution, electronic/cyber bullying and gangs, media, and skill developmentt
Grade 10 English	Up to 30 lessons depending on academic level of class	• Meets Ontario Ministry of Education expectations • Lessons based on 6 fictional short stories addressing critical issues for youth • Variety of literacy strategies to encourage exploration of material and critical thinking • Activities designed to encourage personal reflection and application of material
Grade 11 English	Up to 29 lessons depending on academic level of class	• Meets Ontario Ministry of Education expectations • Lessons based on between 20-30 non-fiction readings (depending on academic level of class) • Variety of literacy strategies to encourage critical analysis • Activities designed to encourage personal reflection and application of material

Table 3. Dissemination of Fourth R to other provinces between 2004 and 2008

Province	Number of Schools Implementing *Fourth R*			
	2004-2005	2005-2006	2006-2007	2007-2008[1]
British Columbia		5 pilot schools	15	25
Alberta			5 pilot schools	15
Saskatchewan		5 pilot schools	13	35
Manitoba				7 pilot schools
Ontario[2]	23 schools (RCT)	45	160	> 350
Quebec				4 pilot schools
Nova Scotia				7 pilot schools
Total	23 in 1 province	55 in 3 provinces	188 in 3 provinces	> 400 in 7 provinces

1 Based on number of schools that had arranged for training as of May 2007.

2 Ontario is the only province where the *Fourth R* is available for purchase outside of the national dissemination project. Numbers post 2005 are based on schools that have ordered the materials and/or have arranged for training.

Table 4. Features implicated by directors, superintendents and consultants as most significant in choosing to implement the Fourth R program (n= 25)

Factor	Level of Endorsement	
PANEL A: Factors Instrumental in Choosing to Bring *Fourth R* to Board	**% Respondents Identifying Factor as Top 5[1]**	**Average Ranking[2]**
Program is research-based	72%	2.3
Potential to positively impact students	64%	2.4
Curriculum-based	56%	2.3
Comprehensive coverage	40%	2.9
Quality of teaching resources	40%	3.2
Link to provincial curriculum expectations	32%	3.0
Taught by teachers	28%	2.8
Free training	28%	3.8
Impressions after initial meeting	28%	3.8
Free materials	20%	3.2
PANEL B: Factors Identified as Potential Barriers to Implementation	**% Respondents Identifying Barrier**	
Time required to implement	22%	
Existing violence prevention programs	9%	
Teacher resistance	9%	
Opposition at school level	4%	
Opposition at district or board level	4%	
Community partners deliver prevention	4%	
Cost	4%	
Community opposition to topics	0%	
Parent pressure about topics	0%	
Issues are not relevant for our community	0%	
Difficult to match to curriculum expectations	0%	

1 Factors identified by at least 20% of respondents.

2 Based on respondents who identified factor as one of top five. Not available for barriers as item did not involve ranking (i.e., respondents could identify as many barriers as they wished).

Table 5. Best program features and implementation challenges identified by teachers

Attractive Features[1]	% Teachers (n=25)
Clearly written lesson plans	84%
Variety of activities	60%
Use of interactive teaching strategies	60%
Hand-outs included	60%
Focus on building skills	56%
Engaging material for youth	48%
Fourth R videos	48%
Overheads included	36%
Commercial videos	32%
Match to provincial curriculum standards	32%
Classroom discussion opportunities	24%
Clear expectations	16%
Inclusion of marking rubrics	16%
Implementation Challenges	
Timeframes difficult to meet	56%
External influences (snow days, assemblies, etc.)	40%
Role plays difficult to carry out	28%
Students did not respond well	16%
Mismatch with local culture	8%
Students resisted role play exercises	8%
Difficulty sharing resources among classes	4%
Instructions for some activities unclear	0%
Difficult to have appropriate AV equipment	0%
Pressure or resistance from parents	0%

1 Most teachers ranked 5 best features (as requested), but a quarter of respondents used a 1-5 rating scale instead. Answers are collapsed to represent whether or not they were chosen at all. However, percentages must be interpreted with caution as the majority of respondents were using a forced choice, limited answers response.

Table 6. Perceived benefits of core and grade 8 Fourth R programs for students and teachers

Benefit	% Teachers Identifying Benefit (n=25)
For Students	
Opportunity to develop skills	80%
Use of interactive teaching strategies	80%
Opportunity to practice skills	76%
Awareness of healthy relationships	76%
Healthier relationships	76%
Opportunity to observe peers practice skills	52%
Opportunity to receive feedback from peers	44%
Better help-seeking strategiess	44%
Match to provincial curriculum standards	40%
For Teachers	
Students more engaged in materials	64%
Increased my comfort doing role plays	60%
More interesting materials	56%
Learned new teaching strategies	52%
Learned more about relationship violence	48%
Developed better relationships with students	40%
New ideas for teaching other courses	36%

Table 7. Strategies and potential barriers related to sustainability

Panel A: Strategies	% Teachers (n = 36)	% Decision-Makers (n = 25)
Updated curriculum materials	65%	56%
Booster training for teachers	28%	60%
Training for new teachers to use the program	47%	88%
Opportunity to be involved in research	6%	28%
Related professional development opportunities	56%	56%
Recognition from administrators	11%	28%
Support from administrators (or board)	33%	48%
Financial resources to support program	58%	48%
Panel B: Barriers		
New programs get introduced	61%	32%
Pressure from parents	50%	0%
New administrators who do not support program	17%	76%
Change in provincial curriculum standards	56%	24%
New teachers who have not received training	61%	64%
Video materials become dated	28%	40%
Costs	Not asked	24%
Program fatigue/novelty wears off	Not asked	24%