Mental health promotion for youth in Canada

CAMH Health Promotion Resource Centre

Health Promotion and Prevention Team

Provincial System Support Program

Centre for Addiction and Mental Health (CAMH)

camh
Centre for Addiction and Mental Health
Centre de toxicomanie et de santé mentale

Executive Summary

Introduction and Background

The Health Promotion and Prevention Unit at the Centre for Addiction and Mental Health works with the Ministry of Health and Long-Term Care to build capacity amongst public health and health promotion audiences in Ontario. This report will help to inform the work of decision-makers and researchers, as well as broader health promotion and public health audiences working at the community level who are interested in developing and implementing mental health promotion programming for youth.

This scoping review explores the range of research activity regarding youth mental health promotion programming in Canada with the purpose of identifying common elements across successful programs such as program characteristics, outcome indicators and approach. A youth engagement lens is used; that is, only programs that directly engaged youth or incorporated some element of youth engagement principles were considered for review. The review's findings are drawn from programs that self-report success. As a scoping review, it was not an aim of this study to appraise the quality of evidence reported but merely to map the extent, range and nature of research activity. Thus, this report provides a very specific snapshot of youth mental health promotion and mental illness prevention programming to shape an understanding of common elements across successful programs and to offer recommendations for further research and action.

This review begins with an overview of significant topics in the area of youth mental health to provide context and clarify key terms, concepts and issues. A methodology section then explains the inclusion and exclusion criteria for the interventions included in this review. A results section notes the trends and common elements among these interventions. In a discussion section, the interventions in this review are compared with proven and promising practices in youth mental health promotion identified in the British Columbia Ministry of Health's CORE Public Health Functions evidence review (CORE) report. This comparison was done to explore the potential of the interventions in this review as promising practices.

This review concludes with 16 recommendations for further research and action relating to the programs identified. Youth perspectives on these recommendations that were obtained through a series of youth consultations are then summarized.

Finally, included as appendices, are two tables of program outcome indicators to help potential program planners identify and measure program goals informed by the programs in this review.

Trends and Promising Practices in Youth Mental Health Promotion

Using specific selection criteria, youth mental health promotion and mental illness prevention programs were sought across five academic databases, a grey literature search and through

informal consultation with experts in the field of youth mental health. This review considered a broad understanding of evidence including programs with diverse study designs recognizing that what constitutes evidence in mental health promotion is still emerging and that the field is relatively new. In addition, the search was geographically restricted to Canada. Although "youth" and its related terms were used to locate programs, no specific age range was indicated to be as inclusive as possible. Only programs that incorporated some element of youth engagement principles were considered for review. As a result, this review includes programs that directly engage youth to promote their mental health but does not include programs that target educators, public health professionals or community leaders.

24 youth mental health promotion programs were identified. These programs were then reviewed to identify common elements and trends. Across the programs, three primary trends in program characteristics, outcomes, and indicators were identified. These trends among the programs include:

1) A mix of mental health promotion and mental illness prevention approaches, reflecting a promotion–prevention continuum for mental health;
2) Correlation between the age of participants and the types of youth engagement approaches used;
3) Six program outcomes which focus on emphasizing assets and developing capacities:
    i. Improving experiences and understandings
    ii. Increasing positive feelings
    iii. Reducing negative feelings
    iv. Decreasing negative behaviours
    v. Clarifying feelings and attitudes
    vi. Developing skills and awareness

As a scoping review, our purpose is to map the "extent, range and nature of research activity" rather than assess the quality of these 24 programs[4]. As a result, this review compares the approaches taken in the 24 programs with the proven and promising youth mental health promotion practices outlined in the British Columbia Ministry of Health's CORE Public Health Functions evidence review report. The CORE report reviewed and categorized youth mental health promotion interventions by programming approach and by level of effectiveness. From this comparison it was determined that a majority of the 24 programs identified in this review align with the proven and promising practices identified in the CORE report. For instance, most of the 24 programs in this review align with 5 specific program categories outlined in the CORE report including universal programs, school-based programs, interpersonal & dating violence prevention programs, and sports/recreation & eating disorders programs. This alignment offers credibility to the 24 programs as promising practices with the potential to promote youth mental health.

Recommendations for Further Action and Research

This scoping review recognizes the 24 programs identified as being promising practices. However, as promising practices, these types of interventions warrant further exploration to

test their effectiveness across different subpopulations and contexts. Informed by the 24 programs in this review, below are recommendations for further research and action in the area of youth mental health promotion programming. In developing these recommendations, discussion groups were held with diverse groups of Ontario youth between the ages of 12 and 24. The bolded items were identified by youth discussion groups as critical for mental health promotion.

1. Address critical transition periods, for example, from middle school to high school.
2. Use social media campaigns that feature youth-created content and/or feature individuals with real-life experiences of mental illness to reduce stigma.
3. Explore the potential of interactive, online web-based programs with additional in-person support(s) (e.g., in schools or communities). Online content needs to be relevant and frequently updated to maintain interest.
4. Target delinquent behaviours in school settings and develop short- and long-term goals, drawing on strategies such as skills training, **peer support and concurrent student/parent programs.**
5. Reorient school-based programs to change attitudes and behaviours because knowledge on mental health issues is already quite high.
6. Assess school-based programs for appropriateness. These environments may not be perceived to be confidential and/or may prevent youth from participating in other activities.
7. Consider targeted school-based programs for at-risk and/or ethnic minority youth.
8. Provide education, skills development (e.g., gender sensitivity), role modeling, safe spaces to test new skills (e.g., communication skills) and/or **peer educators** as part of an interpersonal and dating violence prevention program.
9. Optimize program formats. Although group formats are commonly used for interpersonal and dating violence prevention programs, they may not always be appropriate and could reinforce the wrong types of behaviours.
10. Include realistic situations and contemporary styles and language, as well as age-appropriate discussions for topics.
11. Encourage sports and recreation activities to address behavioural challenges in at-risk youth and to help youth from the general population cope with feelings of stress.
12. Employ speakers with previous experiences of mental health challenges to increase uptake of key messages, increase understanding and reduce stigma.
13. Research best practices to support homeless youth, prevent problem gambling and foster employment skills in at-risk homeless youth.

14. For homeless youth, mentors can provide support for mental health issues; more broadly, they can also provide support for homework, job searching and network development.
15. In terms of problem gambling, focus on developing coping skills, increasing knowledge about random events, highlighting the links between emotional responses and winning/losing and learning ways to avoid getting "tricked" by the adult game creators.
16. Provide employment skills training programming for an at-risk population and hire youth participants to work in community youth programs.

Sommaire

Introduction et contexte

L'unité Promotion de la santé et prévention du Centre de toxicomanie et de santé mentale collabore avec le ministère de la Santé et des Soins longue durée à renforcer les capacités des publics ontariens en santé publique et en promotion de la santé. Le présent rapport éclairera le travail des décideurs et des chercheurs ainsi que d'un nombre accru d'intervenants en promotion de la santé et en santé publique œuvrant à l'échelle communautaire, intéressés à élaborer et à mettre en place des programmes de promotion de la santé mentale des jeunes.

La présente étude exploratoire se penche sur la gamme d'activités de recherche visant les programmes de promotion de la santé mentale des jeunes au Canada dans le but de trouver des points communs entre les programmes qui portent fruit, par exemple les caractéristiques du programme, ses indicateurs de résultat et son approche. L'étude s'est faite sous l'angle de l'engagement des jeunes. En fait, seuls les programmes reposant sur la participation directe des jeunes ou comportant des principes de mobilisation des jeunes ont été pris en compte. Les résultats de l'étude s'appuient sur des programmes qui ont connu du succès, selon leurs utilisateurs. Comme il s'agissait d'une étude exploratoire, elle ne tentait pas à évaluer la qualité des données probantes déclarées, mais plutôt à établir l'étendue, la portée et la nature des activités de recherche. Le rapport brosse donc un portrait bien précis des programmes de promotion de la santé mentale et de la prévention de la maladie mentale chez les jeunes pour faire comprendre les éléments qui se retrouvent systématiquement dans les programmes qui fonctionnent bien et pour formuler des recommandations quant aux recherches et aux mesures nécessaires à l'avenir.

L'étude donne d'abord un aperçu des sujets d'importance dans le secteur de la santé mentale des jeunes, présentant le contexte et clarifiant les mots, les concepts et les enjeux clés. Elle traite ensuite de méthodologie, expliquant les critères d'inclusion et d'exclusion utilisés dans l'étude pour les interventions. Elle s'attarde aussi sur les résultats, indiquant les tendances qui se dessinent et précisant les éléments qu'ont en commun ces interventions. Puis elle s'attaque à l'analyse, comparant ces interventions aux pratiques éprouvées et prometteuses en promotion de la santé mentale des jeunes qui figurent dans le rapport d'analyse des données probantes des fonctions centrales de la Santé publique élaboré par le ministère de la Santé de Colombie-Britannique. Son objectif était de vérifier que les interventions retenues pour l'étude constituaient des pratiques prometteuses.

L'étude se termine par 16 recommandations proposant de poursuivre la recherche et les mesures prévues dans les programmes ciblés. Les points de vue des jeunes relativement à ces recommandations, recueillis dans le cadre d'une série de séances de consultation avec les jeunes, sont ensuite résumés.

Et, finalement, sont présentés en annexes deux tableaux d'indicateurs de résultats pour aider les planificateurs potentiels de programmes à définir et à mesurer les objectifs des programmes grâce à l'information tirée des programmes visés par cette étude.

Tendances et pratiques prometteuses en promotion de la santé mentale des jeunes

Guidés par des critères de sélection précis, nous avons exploré en profondeur cinq bases de données universitaires, consulté de la littérature grise et parlé avec des experts en santé mentale des jeunes pour trouver des programmes de promotion de la santé mentale des jeunes et de prévention de la maladie mentale chez les jeunes. Notre étude a pris en compte un grand spectre de données probantes, y compris des programmes comportant divers modèles d'étude, du fait que les données probantes en promotion de la santé mentale en sont au tout premier stade et que ce secteur est particulièrement récent. En outre, la quête d'information s'est limitée au Canada sur le plan géographique. Bien que le mot jeune et des termes connexes aient servi à repérer des programmes, aucune tranche d'âge précise n'a été spécifiée afin d'élargir le plus possible notre portée. Toutefois, seuls ont été pris en compte pour l'étude les programmes qui comportaient certains principes en matière de mobilisation des jeunes. Par conséquent, cette étude se penche sur des programmes qui mobilisent directement les jeunes pour qu'ils assurent la promotion de leur santé mentale, mais elle ne tient pas compte de programmes qui s'adressent aux éducateurs, aux professionnels de la santé publique ou aux dirigeants de la collectivité.

En tout, nous avons trouvé 24 programmes de promotion de la santé mentale des jeunes. Ces programmes ont ensuite été analysés pour que nous puissions en dégager des tendances et des éléments communs. Parmi ces programmes, nous avons pu retracer trois grandes tendances pour ce qui est des caractéristiques, des résultats et des indicateurs. Ces tendances s'énoncent ainsi :

1) Un ensemble d'approches de promotion de la santé mentale et de prévention de la maladie mentale, traduisant un continuum entre promotion et la prévention en matière de santé mentale ;
2) la corrélation entre l'âge des participants et le type d'approches mises de l'avant pour mobiliser les jeunes ;
3) six résultats de programmes axés sur la mise en valeur des atouts et le renforcement des capacités :

i. Améliorer les expériences et la compréhension
ii. Augmenter les sentiments positifs
iii. Réduire les sentiments négatifs
iv. Diminuer les comportements négatifs
v. Clarifier les sentiments et les attitudes
vi. Développer les aptitudes et éveiller la prise de conscience

Comme nous procédions à une étude exploratoire, nous voulions établir « l'étendue, la portée et la nature des activités de recherche » et non pas évaluer la qualité de ces 24 programmes. C'est pourquoi notre étude compare l'approche adoptée dans ces 24 programmes avec les pratiques établies et prometteuses en promotion de la santé mentale des jeunes figurant dans le rapport d'analyse des données probantes des fonctions centrales de la Santé publique

élaboré par le ministère de la Santé de Colombie-Britannique. Ce rapport a analysé et classé les interventions en promotion de la santé mentale des jeunes par approche et par degré d'efficacité. Cette comparaison nous a permis de constater que la plupart des 24 programmes compris dans notre étude s'harmonisaient avec les pratiques établies et prometteuses indiquées dans le rapport de C.-B. Par exemple, la plupart des programmes présentaient de grandes similitudes avec au moins cinq des catégories spécifiques indiquées dans le rapport de C.-B., soit des programmes universels, des programmes intégrés à l'école, des programmes de prévention de la violence interpersonnelle et dans les fréquentations ainsi que des programmes sportifs ou récréatifs et des programmes portant sur les troubles alimentaires. En raison de telles similitudes, nous sommes d'avis que les 24 programmes compris dans cette étude constituent des pratiques prometteuses à même d'assurer la promotion de la santé mentale des jeunes.

Recommandations pour les recherches et les mesures à l'avenir

L'étude exploratoire reconnaît que les 24 programmes ciblés représentent des pratiques prometteuses. Toutefois, les interventions en question devraient, en tant que pratiques prometteuses, faire l'objet d'une analyse plus poussée pour valider leur efficacité dans divers contextes et pour divers sous-groupes. À la lumière des 24 programmes pris en compte, nous proposons donc les recommandations qui suivent. Elles indiquent les recherches et les mesures qui seraient nécessaires pour assurer le succès des programmes de promotion de la santé mentale des jeunes. Elles reflètent aussi les opinions recueillies lors de divers groupes de discussion composés de jeunes Ontariens de 12 à 24 ans. Les éléments en caractères gras correspondent aux priorités qu'ont indiquées les membres de ces groupes de discussion.

1. Se pencher sur les périodes de transition critiques, par exemple de l'école intermédiaire à l'école secondaire.
2. Tirer parti des campagnes sur les médias sociaux qui mettent en valeur du contenu créé par les jeunes et des personnes qui ont vraiment connu des problèmes de santé mentale pour réduire les préjugés.
3. Avoir recours à des programmes sur le Web interactifs et offrir en sus une aide directe en personne, p. ex. à l'école ou dans la collectivité. Explorer le potentiel de tels programmes interactifs sur le Web. Ces programmes en ligne doivent être pertinents et mis à jour fréquemment pour garder l'intérêt des utilisateurs.
4. Cibler les comportements délinquants dans le contexte scolaire et établir des objectifs à court et à long terme à l'aide de stratégies comme l'acquisition de nouvelles compétences, l'**entraide des pairs** et des **programmes jumelés élèves-parents**.
5. Réorienter les programmes en milieu scolaire de manière à changer les attitudes et les comportements étant donné l'ampleur des connaissances actuelles sur les questions de santé mentale.

6. Évaluer les programmes en milieu scolaire pour juger de la pertinence du milieu d'intervention. La confidentialité d'un tel milieu peut être remise en question ou empêcher les jeunes de participer à d'autres activités.
7. Envisager des programmes en milieu scolaire ciblés pour les jeunes à risque ou ceux appartenant à des minorités ethniques.
8. Pour contrer la violence interpersonnelle et dans les fréquentations, les programmes de prévention doivent comporter éducation, développement des compétences (p. ex. sensibilisation à l'égalité des sexes), imitation de rôles et mise à contribution de **pairs éducateurs** et fournir des endroits sûrs où mettre en pratique les acquis (p.ex. les aptitudes en communication).
9. Optimiser les formats des programmes. Même si beaucoup de programmes ont souvent recours aux séances en groupe pour prévenir la violence interpersonnelle et dans les fréquentations, les groupes ne constituent pas toujours une solution appropriée et pourraient même provoquer l'intensification des comportements indésirables.
10. Inclure des situations réalistes, utiliser une langue et un style contemporains et opter pour des sujets de discussion bien adaptés à la tranche d'âge.
11. Encourager les sports et les activités récréatives pour aider les jeunes à risque à surmonter les problèmes de comportement et pour aider les jeunes en général à faire face aux sentiments de stress.
12. Faire appel à des conférenciers qui ont de l'expérience en matière de problèmes de santé mentale de manière à accroître l'assimilation des messages clés, à faciliter la compréhension et à réduire la stigmatisation.
13. Rechercher les pratiques exemplaires visant à soutenir les jeunes sans abri, à prévenir les problèmes de jeu compulsif et à favoriser des compétences qui améliorent l'employabilité des jeunes à risque sans abri.
14. Pour les jeunes sans abri, les mentors peuvent fournir leur appui pour les problèmes de santé mentale ; de façon plus large, ils peuvent aussi fournir de l'aide aux devoirs et collaborer à la recherche d'emploi et à la constitution d'un réseau.
15. Dans les cas de jeu compulsif, miser sur le développement d'habiletés d'adaptation, une information détaillée sur les événements aléatoires, la mise en évidence des liens entre les réponses émotionnelles et les gains ou pertes au jeu et l'apprentissage de moyens d'éviter d'être leurré par les concepteurs de jeux pour adultes.
16. Offrir aux jeunes à risque des programmes de formation pour favoriser leur employabilité et embaucher des jeunes dans le cadre de programmes communautaires destinés aux jeunes.

Acknowledgments

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Background

Context

The Ministry of Health Promotion and Sport (MHPS)[i] created the Healthy Communities Fund (HCF) as a "one-window approach to funding community partnership programs." [1] The goal of the HCF is to position local and regional organizations as empowered experts and agents in health promotion for their own communities and to provide support for their endeavours.

The HCF has three streams: Grants Project Stream, Partnership Stream and the Resource Stream. The Centre for Addiction and Mental Health (CAMH) has been designated as a Resource Centre within the HCF, with topic-specific expertise in mental health promotion, substance and alcohol misuse and tobacco use/exposure. As a Resource Centre, CAMH offers learning events, CAMH tools and resources and evidence-informed research products for community organizations and stakeholders within the partnership stream, other members of the grants stream and broader health promotion and public health audiences in order to build capacity for those working to advance health promotion in Ontario.

Mental health promotion has been identified by the MHPS as one of six key priority areas,[1] and youth engagement has gained traction and is recognized as one important component of reaching youth—a priority population for the Ministry. We applied youth engagement as an additional lens to identify mental health promotion programs for inclusion that placed youth as enablers and empowered actors towards positive mental health. Youth are considered "a critical group to influence because they can provide a voice for healthy communities and be advocates for health promotion," and as such, have been identified as a priority population by the MHPS.[1]

In Ontario, the recognition of mental health as a health priority is outlined in *Open Minds, Healthy Minds: Ontario's Comprehensive Mental Health and Addiction Strategy*.[2] This report represents the province's strategic vision for integrating services and support systems to offer a continuum of care, as well as increasing funding for community mental health programming to support the estimated 20 per cent of Ontarians who encounter mental illness or substance abuse, and the five per cent who experience a gambling problem.[2] This strategy builds on previous provincial level strategies and other ministry documents.[3]

Scope

We sought to review the current state of evidence on mental health promotion and mental illness prevention[ii] programs for youth in Canada. We looked for programs that have been evaluated and reported on any outcomes under the categories of health impact, social impact and economic impact, purposefully casting a wide net recognizing that the effects of mental

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[i] As of November 2012, the Ministry of Health Promotion and Sport has been integrated within the Ministry of Health and Long-Term Care.

[ii] We use the terminology of 'mental health promotion' rather than the more cumbersome 'mental health promotion and mental illness prevention'; although mental health promotion can refer to a bevy of activities along the promotion-prevention continuum.

health promotion activities may be far reaching beyond just improvements to health. We looked for these evaluated programs in peer-reviewed journals and best practice databases as well as through grey literature searching and contacts with experts.

It is important to keep in mind that this report is a scoping review, rather than a formal systematic review. A scoping review is more exploratory, aiming to map "the extent, range and nature of research activity"[4] in a particular area. As such, our purpose was not to assess the quality of the evaluations, data or outcome measurements. Rather, this review examined the range of research activity regarding mental health promotion programming for youth in Canada, with the purpose of identifying common elements across successful programs such as program characteristics, outcome indicators and approaches.

Identified programs underwent further screening; one criterion for inclusion was incorporating an element of meaningful youth engagement. While no formal framework was used to assess youth engagement, we used the ladder of youth participation as outlined by Roger Hart,[5] and the principles of youth engagement put forth by the MHPS[1] to inform the selection process. Resources from these two streams were compiled and presented to key stakeholders, including youth, through a series of engagement consultations, to obtain feedback and identify gaps and priorities.

Although substance misuse is an important consideration among youth populations and the co-occurrence of mental health issues and substance misuse are frequently associated with poorer health outcomes[6], programs exclusively addressing substance misuse were not included in this review. We did however include broad mental health programs where substance misuse was one component of a more comprehensive program.

This report is geographically restricted to Canada, with an emphasis on Ontario. As an Ontario focus, the key stakeholders and youth who provided feedback on the study findings were based in Ontario. We also focused on universal (primary) and some selective (secondary) promotion and prevention programs. We did not identify programs targeted at educators, public health professionals or community leaders; instead, we opted for programs that directly engage youth to promote their mental health.

This report combines multiple sources of information to begin to make sense of what the evidence is telling us about Canadian mental health promotion programming for youth. The overall purpose is to identify common elements across successful programs so as to identify promising practices that require further attention and research.

Intended audience

This report aims to inform the work of decision-makers and program planners as well as broader health promotion and public health professionals and those working at the community-level who are interested in developing mental health promotion programming for youth.

Introduction

This section provides an overview of key topics informing the field of youth mental health, followed by the summary of evidence. This overview provides context for the current state of promising practices for youth mental health promotion programming by clarifying relevant terms, concepts and key issues.

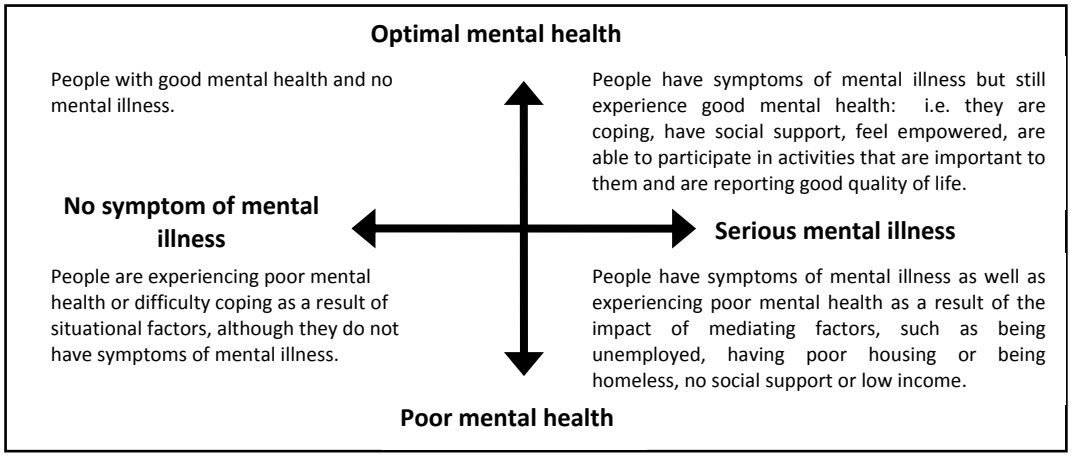
Mental health and mental illness

Mental health and mental illness are growing concerns worldwide. According to the World Health Organization (WHO), mental illness contributes a high disease burden in terms of years of life lost to premature mortality and disability,[7] due to its lifetime effects. Depressive disorders, for example, are among the leading causes of disability and premature death for all age ranges and both sexes.[7] These disorders have been projected by the WHO to become the second largest burden on health by 2020.[8] Despite the large disease burden, mental health and mental illness are poorly understood concepts.

The WHO describes ***mental health*** as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his or her community."[8] The Public Health Agency of Canada (PHAC) has also contributed to the definition of mental health, by framing it as "the capacity of each and all of us to feel, think, and act in ways that enhance our ability to enjoy life and deal with the challenges we face. It is a positive sense of emotional and spiritual well-being that respects the importance of culture, equity, social justice, interconnections and personal dignity."[10] ***Mental illness***, on the other hand, is related to mental health, but more specifically refers to the diagnosable mental disorders.

It is becoming increasingly popular to think about mental health and mental illness less as dichotomous concepts (i.e., as either one or the other) and more as existing along intersecting continua. From this view, one continuum spans from poor mental health to optimal mental health, while the intersecting continuum ranges from no symptoms to serious mental illness (Figure 1).[11] Similar models, such as the "flourishing" versus "languishing" approach,[12,13] depict similar ideas that positive mental health can exist among individuals experiencing mental illness, such that they are "flourishing" despite their challenges or symptoms. Similarly, the absence of mental illness does not necessarily mean positive mental health – one can be just as unwell or "languishing" by experiencing challenges and having difficulty coping.

Figure 1. An intersecting continua approach to mental health



Adapted from Canadian Institute for Health Information. Definitions from Canadian Mental Health Association, 2006 Mental Health Promotion[14]

There is increasing recognition of the multiple layers affecting a person's mental health. While biological and psychological traits are important constituents, other determinants also have an impact on an individual's mental health and general well-being (see Box 1 for some common social determinants of mental health). In this report, we discuss both the promotion of mental health and prevention of mental illness as the targets of programming.

Box 1. The social determinants of mental health

- *Culture*
- *Discrimination*
- *Education and literacy*
- *Employment and working conditions*
- *Gender*
- *Globalization*
- *Health services—primary health care*
- *Healthy childhood development*
- *Immigration and migration*
- *Income and social status*
- *Language*
- *Personal health practices and coping skills*
- *Racism*
- *Social support networks*
- *Urbanization*
- *Violence*

Source: CAMH Knowledge Exchange. Social Determinants of Health. http://knowledgex.camh.net/policy_health/social_determinants/Pages/default.aspx

Mental health promotion and mental illness prevention

The concept *of* ***mental health promotion*** is grounded in the definition of ***health promotion*** put forth by the *Ottawa Charter for Health Promotion* and is broadly defined as the "process of enabling people to increase control over, and to improve their health."[15] The goal of mental health promotion is similar, as the emphasis is on building capacities and competencies for well-being, rather than focusing on illness and its risk factors. Mental health promotion also advocates a population approach that takes into account the many influences of the determinants of health.

However, mental health promotion is also distinct from health promotion through two related concepts: power and resilience. ***Power*** re-emphasizes the notion of control, but extends the concept beyond individual control to that of group or community.[16] ***Resilience*** refers to the ability of an individual, group or community to cope with "significant adversity or stress"[17] through a balance of risk and protective factors.[18] On the one hand, risk factors, such as biological or psychosocial variables, can increase the likelihood of poor mental health or the development of mental health disorders from exposure to adversity or stress. These variables can include low self-esteem, substance abuse and stigma and discrimination, among others. On the other hand, protective factors, such as personality and coping skills, promote optimal mental health and can even decrease the likelihood of mental ill-health.[18]

Clearly, mental health promotion is embedded in the broader arena of health promotion; thus, reducing inequities must be a part of the agenda.[18] Inequities from determinants such as gender and ethnicity can worsen the impact of mental health challenges and hinder opportunities for recovery.

Mental illness prevention involves intervening around risk factors before the onset of illness or reducing the disability after onset, that is, preventing the illness from getting worse.[19] For mental health, the link between promotion and prevention is unclear because these approaches share overlapping strategies and activities, despite their different outcomes goals.[19] While prevention attempts to help people avoid disease, promotion seeks to improve the health and well-being of all people, including those experiencing poor mental health and mental illness.[20] For example, an educational campaign to increase mental health literacy encompasses both strategies: promoting health seeking–behaviours, as well as preventing stigma and discrimination, which can worsen the experience of illness. The WHO advocates joint promotion and prevention efforts for mental health, given that mental health and mental illness can co-exist; that is, at any time, people can "experience degrees of both"[19] or transition between mental health and mental illness (see Figure 1).

In this report, we draw on youth mental health promotion activities as well as mental illness prevention strategies situated along a prevention–intervention continuum.[21] This continuum includes activities that focus on a general youth population audience, at-risk youth or at-risk youth presenting with signs and symptoms who are not necessarily diagnosed or who do not meet diagnostic criteria.[22] For a general or broad population, lower-intensity, universal prevention strategies are appropriate to reach the greatest number of people, for example, school-based education programs and awareness campaigns.[23] For at-risk subpopulations, selective prevention strategies attempt to favourably shift the balance of risk factors to protective factors, for example, intensive programs in family-settings for youth who face academic challenges or live in dysfunctional family settings.[23] Finally, for at-risk subpopulations

that present with undiagnosed signs and symptoms suggestive of mental illness, indicated prevention strategies can provide more intensive support or counselling services.[23]

A promotion-prevention approach is also in line with Ontario's *Open Minds, Healthy Minds*[2] document, a 10-year mental health and addiction strategy that emphasizes a continuum of care, from education, health promotion, illness prevention, early intervention and community support through to treatment programs. This strategy is committed to high-quality, client-centred, integrated supports and services across the lifespan and the creation of resilient and inclusive communities.

Youth

The age range representing ***youth*** differs by country and organization, since the concept of youth holds cultural, political and economic significance. These age ranges determine legal responsibilities and access to services. They also capture the significant transition points from child to youth and from youth to adult. For example, the former Ministry of Health Promotion and Sport (MHPS) defines youth as those between ages 12 and 24;[24] the Ministry of Health and Long-Term Care (MHLTC) specifies youth as those between ages 14 and 24;[25] and the Ministry of Child and Youth Services (MCYS) defines youth as anyone under age 18.[26] When searching for mental health promotion programming that targets youth, we used the search term "youth" without specifying age limits. We felt that this would best capture available programs catering to youth of all ages, without necessarily specifying the included age groups. Furthermore, this more encompassing definition acknowledges the challenges inherent in identifying or classifying youth populations, as illustrated by the different age groups served by the different ministries.

Beyond age, it is important to recognize that youth is not a homogeneous category, but rather a group as diverse as the society at large. Young people do not all experience youth or transition points in the same way or at the same time. This variation has less to do with the parameters of age than with the multiplicity of subgroups to which young people can belong. The recent Chief Public Health Officer's report *Youth and Young Adults—Life in Transition*[27] underscores consideration of a life-course approach along with the broader determinants of health. This approach is essential for recognizing that life stages experienced by youth and young adults are fluid and that the transitions and boundaries between childhood and adolescence and adolescence and adulthood vary from person to person.[27] Although two young people may share a common age, different factors will shape each individual's identity, health and mental health. This diversity is reflected in differing understandings in relation to social determinants such as gender, ethnicity, language, sexual orientation, mental health status, socioeconomic status, ability, religious views and geographical location (i.e., rural/urban), as well as worldviews, social groups, lifestyles and responsibilities.

Although it is important to underscore the diversity of youth, they also share many traits. Youth are typically limited in their ability to affect decision-making, and lack the power, money and status to influence change. Some youth subgroups may hold greater influence; however, in general, youth share the common experience of being under-recognized and under-valued as community members and citizens, compared to adults. This extends to programming that is directed "at" or "for" youth, rather than programming that meaningfully involves youth as active and engaged participants and decision makers. Consequently, these issues highlight the importance of incorporating youth engagement or youth participation principles into programs that attempt to work with youth in mental health promotion.

Youth engagement

A common definition of ***youth engagement*** is "the meaningful participation and sustained involvement of a young person in an activity that has a focus outside him or herself."[28] The New Mentality, a youth engagement pilot project initiative, defined youth engagement as "empowering all youth as valued partners in addressing, and making decisions about issues that affect them personally and/or that they believe to be important."[29] What is meant by meaningful engagement varies, but across definitions, it usually includes valuing youth contributions and youth-adult partnerships and setting realistic expectations.[29] Engaging youth in a meaningful way has been linked to lower rates of depression, anti-social and criminal behaviour, school failure and drop out, alcohol and drug use and sexual activity and pregnancy in girls.[30]

We applied youth engagement as an additional lens to identify mental health promotion programming that placed youth as enablers and empowered actors towards positive mental health. We used the well-known approach to youth participation outlined by Roger Hart (see Box 2, p. 13);[5] although other principles have been proposed (for example, organizations such as the MHPS,[1] Ontario Public Health Association,[31] and Centres of Excellence for Children's Well-Being[30] have developed similar principles for youth engagement, and see Wong et al., 2010, for a review of youth participation typologies.[32]). A report from the New Mentality project provides a useful summary of youth engagement concepts and practical advice, along with examples of Ontario organizations that draw on youth engagement approaches for mental health promotion.[29]

Although youth participation in the program design and leadership roles is ideal or desirable[29], it is recognized that it is not always possible or practical[32]. Hart's ladder allows for this spectrum of participation and engagement approaches. We acknowledge that engagement can also be characterized by how active youth were in the program or intervention delivered: Were they recipients of information (didactic) or active participants in shaping the information (interactive)?

Finally, we should recognize that youth engagement concepts are usually developed by adults; therefore, translating them into "more youth-friendly forms"[29] or testing them with youth populations are important tasks.

Box 2. Ladder of youth participation (Adapted from Roger Hart[5])

True participation

#8 Youth-initiated, shared decisions with adults: Projects or programs are initiated by youth and decision-making is shared. These projects empower youth and enable them to access and learn from the life experience and expertise of adults.

#7 Youth-initiated and directed: Young people initiate and direct a project or program. Adults are involved only in a supportive role.

#6 Adult-initiated, shared decisions with youth: Projects or programs are initiated by adults but the decision-making is shared with the young people.

#5 Consulted and informed (youth): Youth give advice on projects or programs designed and run by adults. Youth are informed about how their input will be used and the outcomes of the decisions made by adults.

#4 Assigned but informed (youth): Youth are assigned a specific role and are informed about how and why they are being involved.

Not true participation

#3 Tokenism: Young people appear to be given a voice, but in fact have little or no choice about what they do or how they participate.

#2 Decoration: Young people are used to help or "bolster" a cause in a relatively indirect way, although adults do not pretend that the cause is inspired by youth.

#1 Manipulation: Adults use youth to support causes and pretend that the causes are inspired by youth.

Youth mental health and well-being

Children and youth have been identified as priority populations by Ontario's *Open Minds, Healthy Minds* strategy. This is a welcome emphasis because the symptoms of mental illness tend to first emerge during this period of life,[2] particularly among those facing key life transitions or living in remote communities. In Ontario, between 15% and 21% of children and youth report experiencing at least one mental health challenge.[3] Children and youth are the key focus in the first three years of the strategy.

The *Ontario Student Drug Use and Health Survey* (OSDUHS)[33], the longest ongoing school survey in Canada, is a key instrument that uses non-clinical criteria to determine the scope of substance use, as well as mental health and well-being among grade 7–12 students in Ontario. *The Mental Health and Well-Being of Ontario Students 1991-2011*[34] reports on mental health, physical health and risk behaviours from 9,288 students from the 2011 OSDUHS survey. Self-reported outcomes on various measures of mental health are used to avoid underestimating the extent of mental health issues. These non-clinical measures are used because young people in this age group are particularly vulnerable to experiencing a range of mental health and illness challenges without necessarily having a corresponding medical diagnosis.

According to the 2011 mental health and well-being report, the three most commonly reported distress symptoms experienced by students in Ontario was the feeling of constantly being under stress (41%), losing sleep because of worrying (30%) and feeling unhappy and depressed (27%).[34] Furthermore, one-third (34%) of students reported experiencing elevated psychological distress, defined as having at least three of the 12 symptoms covering depressed mood, anxiety and social problems, with females more likely to than males (43% vs. 24%).[34] A further 11% of respondents reported antisocial behaviours (e.g., theft, vandalism, assault), which were more prevalent among males than females (9% vs. 7%). [34]

Bullying is associated with mental health consequences and the 2011 data show that 29% of students reported being bullied in school and one-in-five (21%) of students report bullying others.[34] Cyber-bullying – asked for the first time in the 2011 OSDUHS – was reported by 22% of students with females almost two times as likely as males to report being a victim (28% vs. 15%).[34] Other issues addressed by the survey included low self-esteem, contemplating and attempting suicide, weight and body image issues, gambling and video gaming and substance abuse.

Youth mental health promotion

Addressing youth mental health early is likely to have immediate benefits by increasing the capacity of youth to deal with mental health stressors. Early action can also potentially reduce young people's risk for poor mental health in the future[2] and allow youth to develop their own health-seeking abilities and behaviours.[35] Early intervention can also contribute to better academic achievement and its associated benefits later in life, such as secure income and housing. Furthermore, early intervention can limit interaction with the judicial system and reduce costs to the health system through decreased use of emergency care.[2] These outcomes underscore that youth represents a critical period of time to act. Changing negative attitudes among youth is hypothesized as one of the best strategies for preventing stigmatizing attitudes and behaviours in adulthood; these stigmatizing attitudes can hinder help-seeking and increase discrimination.[36]

Mental health promotion for youth represents the best proactive strategy to prevent mental illnesses and disabilities now, and later in life. Mental health promotion involves everyone: parents and caretakers, friends and peers, schools and communities and youth themselves. Promotion activities include strengthening the protective factors youth already possess, equipping them with the tools to cope and deal with risk factors and introducing them to services. These services include health-related and other social services, such as, housing and employment, to support youth in positive mental health–enabling endeavours.

Evidence-based and promising practices

In seeking to identify common elements across successful youth mental health promotion programming, this study reviews interventions using a broad understanding of evidence. Evidence-based practices are increasingly perceived as the foundation for quality health care, including health promotion. Identifying and compiling evidence-based practices requires understanding what counts as evidence, as well as standards for evaluating and comparing evidence.[19] In mental health promotion work what constitutes evidence is still unclear and debated. Traditional study designs, such as randomized controlled trials (RCTs), in which one

group acts as the control and is not exposed to any potential program benefits, may not be viewed as appropriate, desirable or ethical.[37]

Including evidence gathered from diverse study designs, such as cross-sectional studies using surveys or qualitative studies drawing on interviews, has been proposed as one way forward. [37] When considering evidence from different study designs, however, the main issue is with the quality of the study design and its ability to reduce different types of biases. Biases can include selecting a group that is not representative of the general youth population, over-reporting benefits for those expecting to experience change and differences in how a program is delivered and how participants are exposed to it. For health promotion, however, evidence of differing "quality" is usually acceptable and sufficient, depending on the aim of the program and after considering the costs and benefits.

To support this perspective, a World Health Organization (WHO) report on mental health promotion cited the continuation of a school anti-bullying campaign after a reduction in bullying was observed, even when there was no additional evidence of whether the decline was a consequence of the program or a secular trend altogether.[19] Nonetheless, the WHO report concluded that the decision to implement the same program at numerous schools might require evidence of effectiveness at multiple sites before allocating funds and expanding the program.[19] Conversely, if the school observed a significant drop in bullying, along with other anti-social and aggressive behaviours, this benefit may outweigh the cost implications of rolling out the program. The point of this example is to illustrate that in the field of mental health promotion, notions of evidence and quality depend on context and purpose.

Even within a framework that allows for a wide range of evidence gathered from diverse study designs, the task of capturing or evaluating evidence still represent a significant challenge within the field of mental health promotion. For example, programs that target some of the social determinants of health are less likely to use RCTs to measure intervention impact.[37] In many instances, determining the potential financial, social and ethical implications, rather than direct changes in mental health indicators, may determine whether a mental health promotion program was successful or not.[19] Other challenges include insufficient funding for longer programs, which hampers the time needed for sufficient follow-up to detect changes; programs implemented without an evaluation component and therefore without any indicators; and mental health indicators and parameters that are difficult to measure or that lack capacity to conduct evaluations, which might introduce biases in the evaluation process. Finally, successful mental health promotion programming could mean the absence of measurable and diagnosable illnesses; therefore, it remains difficult to determine cause and effect in many of these programs.

The notion of ***best practices*** or ***promising practices*** may be a helpful concept to arbitrate cases where it is unclear whether the presented information is of high enough "quality" to qualify as evidence in the traditional sense. Best practice is understood in health promotion as "sets of processes and actions that are consistent with health promotion values, theories, evidence, and understanding of the environment, and that are most likely to achieve health promotion goals in a given situation."[38] In this case, best practice takes a broader view, with less emphasis on study design, although still a relevant component, and greater engagement with the overall objective

of health promotion. By adopting a dual notion of evidence-based and promising practices, we are better equipped to address the diversity of concerns facing mental health promotion and to give greater consideration to the variety of approaches available to address them. Including limitations set by the evidence we do have, which consists of best practices and evidence from diverse study designs, we are further limited by the evidence we don't have. Specifically, much evidence is currently unavailable for successful mental health promotion for youth in Canada because the field of mental health promotion is still relatively new. That being said some reviews of existent youth mental health promotion programming have been completed or are underway in Canada. These including the following reviews:

2) A review of the effectiveness of school-based interventions on mental health stigmatization included six Canadian interventions out of the 40 programs identified. They were unable to draw conclusions about what works to reduce discrimination; however, they commented that behavioural changes should be a primary outcome to measure.[39]

   www.capmh.com/content/2/1/18

3) The School-Based Mental Health and Substance Abuse (SBMHSA) Consortium is comprised of 40 researchers and practitioners leading four teams to review, scan and survey school-based child and youth mental health programs pertaining to mental health and substance abuse. Findings are expected to be released in winter 2012.

   https://kec.mentalhealthcommission.ca/partners/sbmhsa/about-us

4) A Dalhousie PhD student, Yifeng Wei, is conducting a systematic review of mental health promotion programs for youth, as well as an RCT testing a mental health curriculum in a high-school setting.

   www.dal.ca/news/2011/07/08/assessing-mental-health-education.html

4) CORE Public Health Functions for British Columbia, which was developed by British Columbia's Ministry of Health to inform the work of its public health system, reviewed evidence of effectiveness for mental health promotion interventions for specific populations and across the lifespan, and identified eight categories of interventions for youth mental health and their potential level of effectiveness (Table 1).[37] Their definition of effectiveness was based on a review of the outcomes as well as the appropriateness of interventions for British Columbia's health system. This review will be referred to later on in our analysis (page 23) where we explore the programs reviewed in this study in the context of the eight effective/promising interventions for youth mental health outlined in the CORE Public Health Functions for British Columbia evidence review.

   www.health.gov.bc.ca/public-health/pdf/Mental_Health_Promotion-Evidence_Review.pdf

Table 1. Effective mental health promotion programs for youth[37]

Intervention	Level of effectiveness
1. Universal interventions—positive youth development through family, school and community	Proven
2. Sexual health education	Proven—for reducing sexual risk Promising/Warrants further research: for impact of sexual health and sexual health education on positive mental health
3. Depression prevention: to address poor academic performance, social dysfunction, problematic substance use, suicide attempts, completed suicide	Promising/Warrants further research: insufficient evidence for widespread implementation
4. Suicide prevention	Promising/Warrants further research: insufficient evidence for widespread implementation
5. Prevention of harms from substance use • *5.1 School-based*	Proven
• *5.2 Parent education*	Promising/Warrants further research
• *5.3 Community mobilization*	Promising
• *5.4 Youth sport and recreation/mentorship*	Promising/Warrants further research
• *5.5 Primary health care brief intervention*	Promising
6. Interpersonal violence prevention	Promising/Warrants further research
• *6.1 Dating violence/Sexual violence prevention*	Promising/Warrants further research
7. Eating disorder prevention	Promising/Warrants further research
8. Leaving (state) care	Promising/Warrants further research

Method

Search strategy

We searched five databases for peer-reviewed literature between August and October 2011. Through online searches and contact with key informants, a grey literature search was also undertaken in December 2011 to locate programs that have not been published in peer-reviewed journals. This is an important avenue, since many community-based programs offer informal or formal evaluations on their own or external websites. Appendix B outlines the search strategies, terms and results.

Program selection

We selected programs according to the selection criteria outlined in Appendix C. In terms of population, we were interested in any interventions or programs that targeted "youth" (and its related terms). We did not indicate specific age ranges because we wanted to be as inclusive as possible. An additional lens of youth engagement was applied to the initially selected studies. We were interested only in mental health promotion programming that specifically involved youth, either as leaders, co-facilitators or partners. Interventions which exclusively targeted teachers, parents and caretakers were excluded. We included studies with concurrent youth and parent/carer or youth and educator programs where the youth component was described in full. We identified, where possible, the level of youth engagement within each program, according to the definitions of youth participation outlined in Box 2 (see p. 12).

All study designs were eligible. Programs were included if they reported on any outcomes under the categories of health impact, social impact and economic impact as defined by the World Health Organization (2002)[19]. Some examples of outcomes under these headings are listed in Appendix C. These outcomes can be measured at any level: individual, organizational, community and societal. We purposefully cast a wide net in terms of outcomes because we recognize that the effects of mental health promotion and preventive activities may be far reaching beyond just improvements to health.

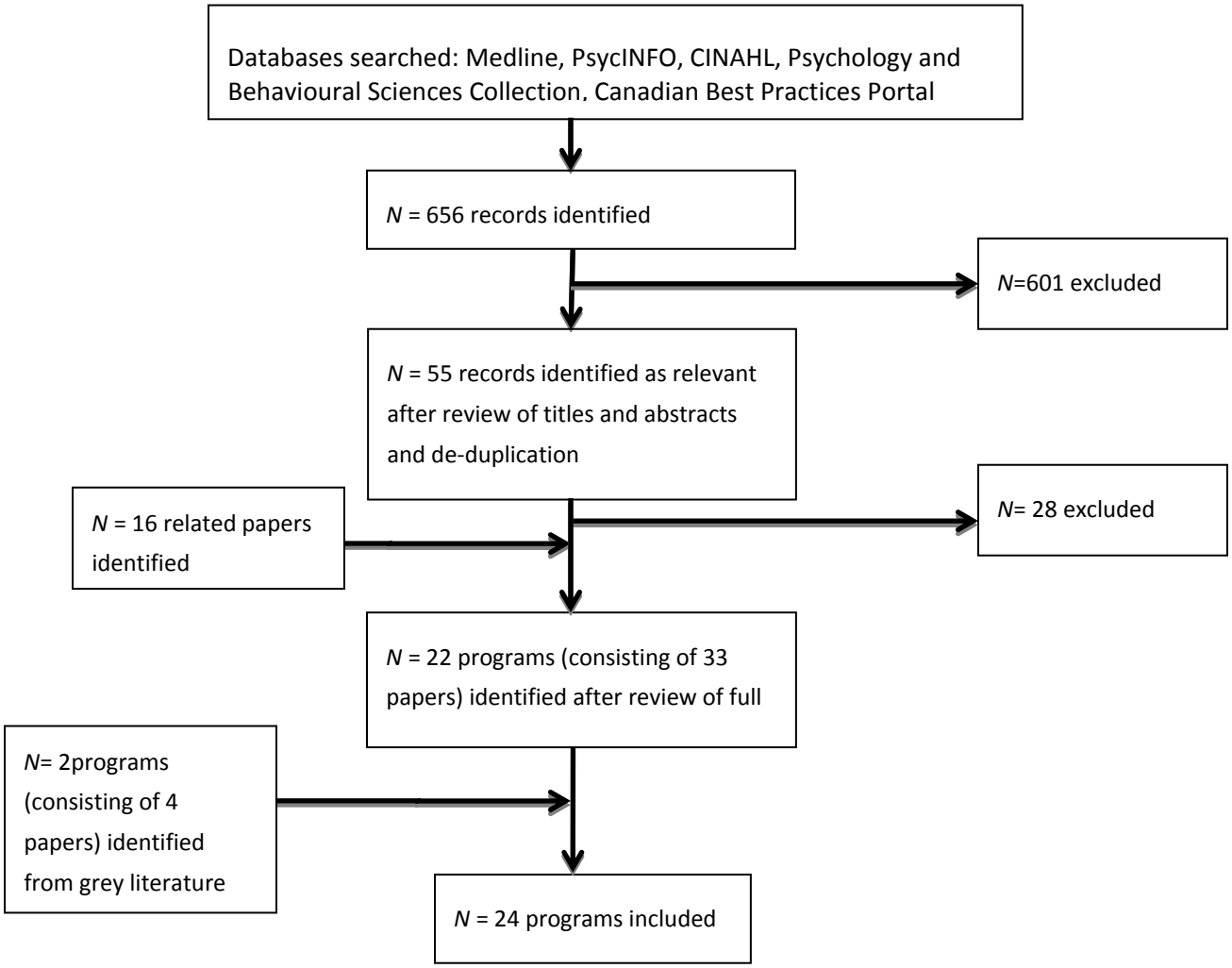
Analysis

Information about the programs was extracted by one reviewer and is summarized in Table 4 (see Appendix B).The evidence is first summarized, providing descriptive information about the programs identified, including the number of universal and selective programs, settings for intervention and the age groups targeted. Youth engagement strategies were classified according to Hart's ladder of participation (Box 2, see p. 16), and the observed trends were discussed. Next, we name as trends the common elements of successful mental health promotion programs. Finally, we discuss the programs identified in this scoping review in the context of their alignment with the proven and promising practices outlined in the British Columbia Ministry of Health's CORE Public Health Functions evidence review report.[37] The CORE Public Health Functions report reviews and categorizes the evidence on international youth mental health promotion interventions by programming approach and by level of effectiveness. Through this analysis we explore the potential of the programs identified in this scoping review to promote youth mental health as promising practices.

Results

We identified 24 programs from five databases and through a grey literature search. Figure 2 depicts the selection process, and individual studies are summarized in Table 4 (see Appendix B).

Figure 2. Flow diagram of included programs



Of the 24 programs, 17 were for universal mental health promotion, delivered to a general population of youth. Five were selective programs targeting at-risk youth. Two programs could be classified as both universal and selective because they addressed an ethnic minority population. Furthermore, the majority of programs (*n*=16) were school based, taking place either during class time or after school and were facilitated by teachers, mental health professionals or youth mentors. Only four programs were community based, taking place in community centres or recreation centres. Three programs combined school and/or community

settings with social media and online content. About half of the programs (*n*=11) were delivered in weekly sessions, over a 6 to 12-week period. Four programs were significantly shorter, with fewer than four focus groups or sessions reported, although the length of time between sessions was not clear. Five programs lasted between four and seven months and generally met on a weekly basis. Four programs had run for more than one year (from two to four years), with upwards of 53 activities or sessions.

Three programs targeted a relatively younger group (under age 14 or Grade 9 and under). Six programs included a wider range of ages, from 13 to 24 years old; the rest were more narrowly focused on youth under age 18. In terms of the methods and tools used to evaluate and assess program success, 14 programs used multiple methods to assess their outcomes of interest. These methods included quantitative and qualitative combinations. Quantitative methods included surveys measuring knowledge, attitudes, behavioural intentions, behaviours and satisfaction. Surveys were self-completed by the youth participants. Qualitative methods included semi-structured and in-depth interviews. Written feedback, focus groups, observations, blogs, emails, artwork and anecdotal stories were evaluated by adults, although this was not always clear. The other 10 programs used pre–post study designs, drawing on self-reported survey data.

Trends

Based on these 24 programs three observed trends were identified:

1) Continuum of promotion and prevention strategies

The first trend identified in this scoping review is that the programs represent a mix of mental health promotion and mental illness prevention, supporting the notion of a promotion-prevention continuum for mental health. Mental health promotion and illness prevention has been described as a continuum of strategies to balance the accumulation of risk and protective factors.

From the programs identified, it is clear that promotion and prevention are not mutually exclusive activities. For instance, activities such as physical activity and art-based strategies, were used in both a mental health–promoting and therapeutic context to help reduce stress experienced by youth.[40,41-45] Similarly, social media (e.g., videos) was used to deliver general mental health campaign messages[46] or targeted campaigns for stigma reduction.[47] Addressing the stigma around mental health was also delivered through presentations.[48-51] Interactive, web-based platforms for health literacy[52] and stigma reduction[53] were also delivered in conjunction with educational presentations[52] and community-based, in-person programs.[53] Support groups were used for general youth populations, but also for specific subpopulations, such as homeless youth, where peer and professional mentors were available to support positive mental health directly, as well as indirectly through help with homework and job searching.[44-45,54]

In addition, techniques such as knowledge and skills development[54-61] were used in both promotion and prevention programs, as were role playing and role modeling[54,56-59] to promote

positive relationship behaviours and skills,[62-63] and to prevent substance abuse and unsafe sex practices.[64-66] Interactive discussions and focus groups were also used to foster positive self-concept (e.g., body image, self-image), healthy decision making (e.g., health and lifestyle choices)[67-68]and self-esteem,[69] and to encourage violence prevention[70-74] and conflict resolution.[55] Employment skills training, for example,[75] was successfully delivered to a youth subpopulation.

Finally, programs such as those focused on interpersonal violence prevention were directed at a general youth population[70-73, 76-79] and a selected at-risk youth population (e.g., those with histories of maltreatment)[62-63] to foster positive, non-abusive relationship development and promote gender equality.[60-61] Similarly, other programs, such as drug prevention[80-81] and problem gambling prevention,[82-84]catered to both groups.

2) Age-informed youth engagement approaches

The second trend shows preliminary correlations between the age of participants and the types of youth engagement approaches used. The three programs delivered for the younger population (typically a range of 14 years and younger) generally used strategies that were less youth-directed and more participation based.[40, 54-55] For example, such programs positioned youth as experts[40] and provided a safe space for discussion.[55] Another set of three programs targeted an older youth population (typically a range of 15 years and older) and tended to use engagement strategies that were created, owned and directed by youth.[46, 67-68, 75]For example, youth created resource materials and content,[46] implemented programs for other youths[75] and mentored those with shared experiences.[44-45]

Two studies that included a wider range of ages also appeared to use more youth-directed engagement. For example, these programs engaged older youth (aged 20 to 30) to lead focus groups and build trust[41–43] and to support the younger youth groups,[41–43, 53, 67–68] or chose participatory action research (PAR) frameworks that prioritize adolescents' voices as a source of knowledge.[67–68] More than half of the programs delivered for a narrower age group employed youth-consulted or -informed strategies,[47,60-63, 70-74, 81-84] where youth participated in discussions[47] or were specifically targeted.[48-52,60-63, 85-86] The other programs engaged in shared decision making, youth-initiated or youth-directed activities,[56-59, 64-66,69, 76-79]such as engaging youth as partners in program design[53, 78-79] and forming student-led committees that linked with parents and the wider community.[64-66]

3) Program outcomes organized into themes for action

The third trend describes the kinds of outcomes targeted by the programs included in this review. Cumulatively, the positive outcomes identified from the 24 programs represent the continua of mental health and illness, with a focus on emphasizing assets and developing capacities, all the while rooting mental health and illness as social experiences. The majority of programs reported outcomes relating to knowledge, attitude and intention to change behaviour because most were unable to report on changes to actual behavioural outcomes. Measuring behavioural outcomes is challenging for any program, particularly for mental health promotion

programs because many factors go into defining a successful program. Additionally, the benefits of mental health promotion can manifest in areas outside of health, such as social life, economic success or academic achievement.

Outcomes are broadly categorized under six themes to facilitate discussion and comparison: 1. improving experience and understandings; 2. increasing positive skills; 3. reducing negative feelings; 4. decreasing negative behaviours; 5. clarifying feelings and attitudes; and 6. developing skills and awareness.

Improving experiences and understandings

Some youth mental health programs reported improvements to participants' experiences of transition periods (i.e. the transition from junior to high school setting),[54] better understanding of mental health and illness[41-43] and understanding themselves[44-45] and others.[67-69] Knowledge of schizophrenia[47] and other mental illnesses,[48-51, 53] abuse,[74] particularly the warning signs of dating violence[78-79] and what constitutes healthy and unhealthy relationships[78-79] improved. In one program, knowledge of random events in relation to gambling[82-84] improved; however, increased understanding was not necessarily associated with actual improvements in coping with random events: mixed and neutral outcomes were observed.[82-84]

Increasing positive feelings

In terms of positive feelings, some youth mental health programs were associated with increased assertiveness,[55] self-confidence,[44-45] self-efficacy,[44-45] overall positive sense of self,[67-68] sense of empowerment,[69] well-being (e.g., life satisfaction, self-esteem)[67-69, 75] and positive mood.[44-45] However, in one program, outcomes, such as sense of belonging, self-esteem and youth voice, worsened.[85-86]

Reducing negative feelings

Programs were also able to reduce negative feelings, such as anxiety,[54] negative feelings towards self,[55] loneliness[41-45] and stress.[44-45, 67-68] However, one study observed that stress was less likely to be experienced by younger participants than older participants.[67-68]

Decreasing negative behaviours

Behaviour changes or intentions to change behaviour were mostly self-reported. They include decreases in aggressive behaviours,[75] substance use,[44-45, 80-81] unprotected sex,[44-45] incidents of physical violence,[60-61,80-81] psychological abuse, passive aggressive tactics, injuries in conflicts with friends and dating partners[60-61] and theft.[80-81] Other changes include decreasing exposure to vulnerable situations and communicating those situations if they occur[78-79] reducing acceptance of dating violence (emotional and physical)[62-63, 70-73, 78-79] and social distancing attitudes towards people with schizophrenia.[47] In one program, students were less likely to be bullied and reported fewer instances of discrimination;[85-86] which can be attributed to either a reduction in these behaviours or an improved ability to cope with them.

Clarifying feelings and attitudes

The youth mental health programs also helped to clarify feelings and experiences of well-

being;[40] attitudes towards violence, substance abuse and sexual health;[64-66] violence in intimate relationships;[74, 76-77] and school and substance use issues.[80-81] The latterwas not associated with observed increases in social competence or life skills indicators (e.g. self-esteem and self-concept).[80-81] Programs were also able to help clarify attitudes towards mental illness.[48-51, 53]

Developing skills and awareness

Programs also encouraged the development of skills and awareness. Improved skills included the ability and confidence to speak to others (e.g., boys and teachers),[55] using non-violent conflict resolution[56-59] and expressing opinions about mental health[46] and general thoughts and feelings.[56-59] Programs also fostered awareness and recognition in youth of their own resources and strengths,[69] for example, initiating ways to help a friend who has been sexually assaulted[70-73] and finding different approaches to help friends and family experiencing mental health challenges.[48-51] Programs also assisted youth in better identifying subtle forms of abuse,[64-66] emotional abuse[70-73] and female-initiated abuse towards males.[70-73]Programs fostered the ability to deal with peer pressure, [64-66, 80-81]improve social networks,[44-45] improve the number of positive relationships[44-45] and enhance future relationships.[69]Programs also encouraged support seeking[44-45] from professionals,[52] informal support systems,[53] local community resources[48-51] and adults whom they identified as trustworthy.[48-51]

Changes at the organizational and community levels were also documented. One program rented and sold student-produced video clips to high schools and colleges across Quebec.[46] Other programs delivered within schools reported that students expressed overall confidence to create their own dating violence prevention initiatives.[78-79] In another program, reduction in physical dating violence was observed in intervention schools compared to control schools two and a half years later; however, there was no reported difference in the levels of peer violence or reported use of alcohol and other drugs.[64-66] Positive changes were also observed in students' social networks, which could signal improvements in the overall school environments.[85-86]

Most of these outcomes were measured at the individual level, although some were reported at organizational (school) and community levels. It should be noted that at the individual level, causal relationships were difficult to establish because cross-sectional evaluation methods were used. Information was gathered from two different groups of people at different time points; therefore, any changes that are observed cannot be linked back to a particular program—we cannot definitively say that observed changes were caused by the actions from a particular program. Only by measuring changes in the same group over time can we attempt to detect a causal change. Only correlations, which are changes observed to be associated with but not necessarily caused by a program, were reported for many of these outcomes and should therefore be interpreted with caution.

At a community level, positive changes include development of an employment strategy in which youth support other youth in their community,[75] as well as fundraisers and community awareness events about violence.[62-63] Community-level goals include developing qualities such as civic mindedness, social consciousness, empathy, discomfort with bullying and ability to voice one's opinion.[56-59]

The breadth of outcomes should impress that there are many avenues from which to approach

and improve youth mental health, and that mental health includes both physical and social elements, as well as psychological aspects. A list of the outcomes identified from the programs, arranged according to mental health issue or topic, can be found in Appendix E, as an aid in the development and evaluation of future youth mental health promotion programs. These outcomes were also re-organized by objective to provide a different perspective (Appendix F).

Discussion

As previously stated, the purpose of this scoping review was to examine the range of research activity regarding mental health promotion programming for youth in Canada, with the purpose of identifying trends and common elements across successful programs. Within the scope of this review, we were unable to assess the quality of evidence of the 24 programs identified. Nonetheless, other reports have assessed the range of evidence from systematic reviews and identified proven and promising practices in youth mental health promotion programming. Namely, British Columbia's Ministry of Health has developed the CORE Public Health Functions (CORE) report which is a document that reviews the international evidence and best practice on mental health promotion programming, including mental health promotion programming that focuses on youth. [37]

In its review of proven and promising interventions in mental health promotion, the CORE report identifies eight evidence-based youth mental health promotion interventions and their corresponding levels of effectiveness (see Table 1, page 16). [37] These types of youth mental health promotion interventions are assigned a level of effectiveness based on the available evidence and appropriateness for British Columbia's health authorities. In regards to effectiveness, the interventions are categorized as:

- Proven effectiveness for wide-scale dissemination, achievement of outcomes and/or implementation.
- Promising/Warrants further research.
- Limited or no evidence available.

To better understand the 24 programs included in this scoping review without directly evaluating the quality of their evidence-base, we explored their alignment with the eight proven and promising youth mental health practices identified in the CORE report. This comparison was done in order to explore the potential of these programs as promising practices. We discovered that programs identified in this scoping review aligned with several of the proven and promising youth mental health intervention categories outlined in the CORE report.

Universal programs

One program type outlined in the youth mental health section of the CORE report is that of universal programs. Universal programs that target positive youth development are identified as being **proven to be effective** for promoting positive mental health[37].

From the 24 programs identified in this scoping review, interventions that might align with the category of universal programs could include interventions to address critical transition periods,

for example, from middle school to high school.[54, 80-81] Another example drawing from the programs in this review, would be the use of social media campaigns, especially when content is designed by youth for youth[46] or features individuals with real-life experience of mental illness, such as schizophrenia, to reduce overall stigma.[47] Additional programs reviewed that could qualify as universal programs include interactive, online, youth-targeted websites, school-based educational presentations[52] and community-based programs[53] that encourage those who have greater health needs to self-identify and seek out formal[52] and informal supports.[53]

School-based programs

A second category of youth mental health promotion interventions identified in the CORE report is school-based programs. [37] School-based prevention programs to reduce harms from substance abuse are also **proven to be effective** according to the CORE report.[37] School-based programs can also target delinquent behaviours through skills training (e.g., social skills), peer support and concurrent student and parent programs.

Within the 24 programs reviewed, school based programs had both short-term (e.g., prevent drug and alcohol use, decrease behavioural problems at school) and long-term (e.g., improve academic performance, improve peer and family interactions) outcomes.[80-81] In addition, feedback from the 24 programs indicated that school-based programs should concentrate on changing attitudes and behaviours because it was often the case that knowledge about mental health issues (e.g., gender roles in dating violence[70-73, 78-79] and schizophrenia[47]) was already quite high, particularly in comparison to attitudes towards mental health issues,[48-51] and was therefore less amenable to further significant increases. Moreover, among the 24 programs reviewed that were school-based, a better understanding relating to mental health was facilitated by speakers with lived experiences of mental illness.[48-51] However, contextual turbulence in the schools, which involved changes in staff and in the composition and size of the student body, was observed to worsen outcomes.[85-86]

Despite the CORE report as identifying school-based programs as being proven to be effective, it is important to keep in mind barriers to participation that may need to be addressed in school settings. For instance, although school settings are by far the best way to access a large and captive youth audience, there is potential to miss out on youth who do not attend school. Furthermore, programs that are held after school may be inaccessible to students who have other commitments, such as caring for a younger sibling. Lunch-time programs may prevent youth from participating in other programs offered at school. There also may be stigma attached to participation in some programs; thus, unintended effects need to be considered. Furthermore, school- and classroom-based formats were not always perceived to be confidential environments for discussion.[41-43] Finally, within a school setting, more targeted approaches may be needed for some groups, such as newcomers and ethnic minority youth.[67-69] Targeted youth focus groups were found to have positive effects for these participants.

Interpersonal and dating violence prevention programs

A third category of youth mental health promotion interventions that the CORE report identifies are interpersonal and dating violence prevention programs. These types of programs according to the CORE report are **promising practices but warrant further research**.[37]

Among the 24 programs included in this scoping review, there are a number of programs that align with the category of interpersonal and dating violence prevention as identified in the CORE report. Related programs reviewed in this study include interventions with components such as education, skills development (e.g., gender sensitivity), role modeling, safe spaces to test new skills (e.g., communication skills) and peer educators to better relate the program to the experiences of youth.[56-59, 60-66, 70-74, 76-79] These approaches can contribute to reducing discrimination,[56-59] developing healthy relationships[76-77] and promoting gender equality.[60-61]

Although the formats of these programs vary, most reviewed in this study were group-based and delivered in the classroom by trained teachers or facilitators. This is not surprising, since the majority of programs are delivered in school settings. A student retreat was another group setting for relationship violence prevention[78-79] programming. Nonetheless, evaluations from the programs included in this review reveal that group formats may not always be appropriate. In some cases, the nature of the group composition and resultant interactions may further reinforce the types of behaviours and attitudes not favourable to violence reduction.[62-63]

In addition, most interpersonal and dating violence prevention programs in this review are universal. Some programs can specifically target at-risk youth, for example, those with experiences of maltreatment.[62-63]

In general, the feedback from the 24 programs in this review suggest that interventions intended to prevent interpersonal and dating violence prevention should include realistic situations and contemporary styles and language, as well as being age appropriate for the topics discussed. For example, the experience and discussion of love will be vastly different depending on age so this should be taken into consideration. Other concerns include the exclusive use of female and male facilitators to model relationship behaviours. This pairing can be problematic because it assumes that romantic or sexual relationships are heterosexual. These kinds of assumptions may not only alienate some students; they may also perpetuate a belief that heterosexual relationships are the norm.

Sports and recreation and eating disorder programs

The CORE report also identifies sports/recreation and eating disorder programs as two separate categories that are both **promising practices but warrant further research**.[37] In this review of 24 programs, there were fewer programs that aligned with the sports/recreation and eating disorder program categories. Still, in this review, walking activities were used to address behavioural challenges in at-risk youth[40.] As well, activities such as snowboarding, hiking, swimming and bowling were promoted as ways of coping with stress.[41-45] In addition, in this review there was one eating disorder prevention program that focused on how people talk about fat and on skills such as conflict resolution, testing new behaviours through role play and increasing body awareness through movement, art and journal writing.[55]

Other programs

From the 24 programs included in this scoping review, there were some that did not align with

the categories set out in the CORE report. However, these interventions may still represent promising practices (pending the accumulation of additional evidence). These programs include support interventions for specific at-risk groups, such as homeless youth,[44-45] and the development of employment skills for at-risk homeless youth.[75] For homeless youth, providing mentors (both professional and peers, including formerly homeless youth) for mental health, but also more broadly, for homework, job search support and network development, was positively regarded.[44-45] This model of holistic mentorship and peer support could be helpful in other mental health–promoting contexts, for both general and at-risk youth populations.

Another program addressed problem gambling prevention and focused on fostering coping skills, increasing knowledge about random events, highlighting the links between emotional responses and winning/losing and finding ways to avoid getting "tricked" by the adult game creators.[82-84] This last strategy could be used more generally to reduce other behaviours, for example, drawing attention to adult-created advertisements for drinking. In the case of developing employable skills, increasing organizational skills, helping youth overcome barriers (e.g., substance abuse, literacy issues and anger problems) and hiring youth to do community work[75] had positive outcomes. More evaluation is needed to explore the benefits of employment skills development programs for at-risk youth and for youth in general.

Limitations

There were several limitations in terms of study design, evaluation methods and reporting. Many programs used small samples, making it difficult to conclude whether a program could be just as effective when applied to a larger and more diverse group of youth. Some of the programs may have purposefully recruited a small sample size because they focused on specific groups, such as Aboriginals, newcomers or people of South Asian origin, who may have found smaller groups more comfortable. Other limitations included attrition (loss of program participants over time) and the lack of consistent tools used to measure various time points. As this was a scoping review, we were less concerned about the effects of these factors on the quality of the studies. Given the wide array of study designs and outcome indicators, we did not formally assess study quality. We were more interested in what we could learn in terms of successful programming and program development.

Self-reported pre- and post-intervention surveys or qualitative methods were commonly used to evaluate programs. These self-reported measures may be subject to biases and should be interpreted with caution. The short follow-up period for some programs, and the nature of measurement tools (e.g., cross-sectional questionnaires and interviews) were additional limitations. These shortcomings mean that programs, at best, could detect changes in knowledge and attitude and measure intention to change, rather than what actual change may have occurred. On the other hand, measuring changes in behaviour was also limited by time constraints placed on programs, along with limitations due to capacity and funding. While these limitations prevent us from drawing definitive conclusions about what works for youth mental health promotion, we were able to identify common elements and outcomes suggestive of successful programming.

Program reporting was limited in some cases. Some programs emphasized the goal of positive mental health, whereas other programs were orientated towards this goal but less explicitly so. There was also limited reporting about the level of youth engagement; where youth engagement was not clear, we excluded the program. Other programs exercised youth engagement principles but did not report them as such. Therefore, variations in reporting made it difficult to assess studies against our youth engagement criterion.

In this report, we were able to map the "extent, range and nature of research activity"[4] on youth mental health programming using youth engagement strategies. For wider implementation, more testing and evaluation is needed, although many of these programs have already been widely implemented across Canada. It is also possible that some studies or information were missed because only one reviewer searched, reviewed and extracted data.

Multiple frameworks exist to classify and understand mental health promotion programs. Among these frameworks is the frequently used *VicHealth 2005 Framework for the Promotion of Mental Health and Wellbeing*. This framework categorizes the key determinants of mental health into three overarching areas for action: 1. social inclusion; 2. freedom from discrimination and violence; and 3. access to economic resources. Social inclusion promotes structural inclusiveness, which includes civic participation and inclusion, the building of social capital and community well-being. Freedom from discrimination and violence encompasses living free from unfair treatment due to membership to a socially defined group (e.g., gender, race, age, culture, sexuality), violence to oneself (e.g., suicide) and interpersonal violence (e.g., bullying).[87] Finally, access to economic resources refers to economic well-being, which encompasses income, as well as opportunities to develop life skills, increase belonging and promote control over ones circumstances.[87]

This framework provides a way to understand and discuss the relevant components of a mental health promotion program for youth to facilitate comparison; however, it did not inform our analysis, as the concepts were too broad for a program implementation level understanding and it was unable to capture the entire body of programs identified with the three areas for action.

Conclusions

This scoping review examined the range of activity regarding mental health promotion programming for youth in Canada, with the purpose of identifying trends and common elements across successful programs. In this review, 24 programs were identified and the majority were delivered as universal mental health promotion for a general population. Selected programs were targeted to at-risk youth or ethnic minority youth. Most programs were school-based and the majority focused on youth under age 18. In terms of youth engagement strategies, programs aimed at younger youth tended to use approaches that required fewer youth-directed activities and more focused participation. For older youth, youth-created and -owned activities were more frequently used. Youth engagement approaches are likely to be more effectively drawn upon if they are age appropriate.

By comparing the programs in this review with proven and promising practices within the British Columbia CORE Public Health Functions review report, we explored these 24 programs for their potential as promising practices. Promising practices warrant further research, not just to test effectiveness, but also to determine whether they can be applied in different contexts, with different populations. Consequently, we make recommendations for further research and action based these 24 programs.

Recommendations for further action and research

1. Address critical transition periods, for example, from middle school to high school.
2. Use social media campaigns that feature youth-created content and/or feature individuals with real-life experiences of mental illness to reduce stigma.
3. Explore the potential of interactive, online web-based programs with additional in-person support(s) (e.g., in schools or communities). Online content needs to be relevant and frequently updated to maintain interest.
4. Target delinquent behaviours in school settings and develop short- and long-term goals, drawing on strategies such as skills training, peer support and concurrent student/parent programs.
5. Reorient school-based programs to change attitudes and behaviours because knowledge on mental health issues is already quite high.
6. Assess school-based programs for appropriateness. These environments may not be perceived to be confidential and/or may prevent youth from participating in other activities.
7. Consider targeted school-based programs for at-risk and/or ethnic minority youth.
8. Provide education, skills development (e.g., gender sensitivity), role modeling, safe spaces to test new skills (e.g., communication skills) and/or peer educators as part of an interpersonal and dating violence prevention program.

9. Optimize program formats. Although group formats are commonly used for interpersonal and dating violence prevention programs, they may not always be appropriate and could reinforce the wrong types of behaviours.
10. Include realistic situations and contemporary styles and language, as well as age-appropriate discussions for topics.
11. Encourage sports and recreation activities to address behavioural challenges in at-risk youth and to help youth from the general population cope with feelings of stress.
12. Employ speakers with previous experiences of mental health challenges to increase uptake of key messages, increase understanding and reduce stigma.
13. Research best practices to support homeless youth, prevent problem gambling and foster employment skills in at-risk homeless youth.
14. For homeless youth, mentors can provide support for mental health issues; more broadly, they can also provide support for homework, job searching and network development.
15. In terms of problem gambling, focus on developing coping skills, increasing knowledge about random events, highlighting the links between emotional responses and winning/losing and learning ways to avoid getting "tricked" by the adult game creators.
16. Provide employment skills training programming for an at-risk population and hire youth participants to work in community youth programs.

Youth discussion groups

Another critical component of promising practice is to engage with the relevant populations to get their thoughts and opinions about research findings. To this end, we held four discussion groups with Ontario youth, aged 12–24, from diverse backgrounds. Two youth originally scheduled to take part in a fifth discussion group also provided feedback through an online survey. We presented the recommendations for action and research from this review, and asked youth what they considered to be important actions for mental health promotion. It is important to read this feedback as a snapshot of youth opinions on a specific topic at a specific time; although the findings are informative, they are by no means generalizable to all youth in Ontario.

A total of 34 youth (26 females, 8 males) took part in the discussion groups (Table 2), over a two-week period in February 2012. In order to preserve anonymity and confidentiality, we provide minimal details about the participants. The discussion groups lasted 1.5 hours and were led by facilitators from the Centre for Addiction and Mental Health. Each participant received a $30 gift card for their participation.

Table 2. Discussion group characteristics

	Number of participants		
	Female	Male	Total
Group 1	5	3	8
Group 2	10	1	11
Group 3	8	2	10
Group 4	3	2	5
Total	26	8	34

The recommendations for action and research were rephrased as 14 distinct statements to facilitate discussion (Table 3). Each discussion group was divided into two teams. Statements 1 to 7 were assigned to team 1 and statements 8 to 14 were assigned to team 2. Teams were asked to read over the statements, then, as a group, to pick two statements with which they agreed the most. The two teams then came together to share and discuss their choices. The top four priorities from each group (representing the top two from each team) are presented in Table 3.

Table 3. Prioritization of recommended action and research statements

Statement	**Group 1**	**Group 2**	**Group 3**	**Group 4**
1. Going from middle school to high school, or high school to university is one of the biggest challenges for youth.		✓	✓	
2. Seeing and practicing different scenarios through role playing and drama can prevent dating violence.	✓			
3. One of the best ways to learn about mental health is from people with personal experiences of mental health challenges.		✓	✓	✓
4. All social media campaigns promoting youth mental health should feature youth-created content.				✓
5. Youth already have a lot of knowledge about mental health issues; they don't need more education.				
6. Schools and classrooms provide a confidential environment in which to discuss mental health issues.				
7. Certain groups of youth are at greater risk for poor mental health; therefore, they need to have their own program.	✓			
8. Websites are the best places to learn about and get information on mental health.				

Statement	Group 1	Group 2	Group 3	Group 4
9. Group activities to prevent dating violence are a bad idea; they can encourage negative behaviours or ideas.				
10. Youth supporting youth is the best way to promote positive mental health.		✓		✓
11. Realistic situations and current styles and language are essential to get youth interested in mental health programs.	✓	✓		
12. It is just as important to educate parents about youth mental health.	✓		✓	✓
13. Sports and recreation activities are the best ways to deal with stress.			✓	
14. There is not enough attention to gambling (e.g., gaming) or employment issues for youth.				

Agreement about statements

There was a range of opinions about what statements were perceived to be important for youth. Our discussion here focuses on statements 1, 3, 10, 11 and 12 because more than one group selected these statements as critical for mental health promotion.

Statement 1: Going from middle school to high school, or high school to university is one of the biggest challenges for youth.

Groups 2 and 3 chose this statement; Group 2 felt that the change in environments, expectations and friends could be overwhelming. Group 3 reiterated this sentiment, suggesting that the transition requires youth to enter an environment with which they are not comfortable and seeing people with whom they are unfamiliar. The transition is also accompanied by an increase in the number of people in high schools compared to middle schools, and universities compared to high schools. Participants mentioned that the transition is also a gateway to new things; however, it was unclear whether this was perceived as a positive or negative experience.

Agreement with statement 1 suggests support for recommendation 1, from which it was derived. Critical transition periods, for example, from middle school to high school, can lead to anxieties and concerns that could negatively affect mental health; therefore, transition periods represent important times in which to intervene.

Statement 3: One of the best ways to learn about mental health is from people with personal experiences of mental health challenges.

Youth in Group 2 felt that because professionals may not have personal experiences with mental health issues, the best way to learn is from those with personal experience. Group 3 felt that those with personal experiences would be more convincing speakers about mental health issues because it's "not a reality until you meet someone." Participants indicated that they wanted to

learn from someone who understands the suffering because it is more personal and real. Group 4 echoed these sentiments; however, participants wanted to hear from people who have overcome their challenges and are able to set an example for youth; otherwise, they felt youth wouldn't listen.

Agreement with statement #3 suggests support for recommendation #12, from which it was derived. However, before using speakers with previous experiences of mental health challenges in order to increase uptake of key messages or increase understanding and reduce stigma, raising awareness of mental health issues among youth must happen.

Statement 10: Youth supporting youth is the best way to promote positive mental health.

Group 2 and Group 4 agreed with this statement, indicating that in most situations, youth are more likely to follow their peers. Group 3 participants thought that youth helping youth was a good way, but not the best way, and therefore did not count this statement among the most important statements. However, participants did suggest that if peer-to-peer education or support is used, it should involve older youth supporting younger peers. Participants did not want peer support with someone of their own age.

Agreement with statement #10 suggests support for recommendation #4, from which it was derived. While youth generally encouraged peer support, they recommended that older youth should help younger youth, rather than have youth of the same age supporting one another.

Statement 11: Realistic situations and current styles and language are essential to get youth interested in mental health programs.

Group 1 agreed that it was important to "keep it real." Group 2 agreed, but no further explanation was recorded. Group 2 indicated that language is constantly changing and it is not always possible to keep up with current lingo. One participant said she laughed when an adult used the word "peeps." Participants expressed that what is more important than actual words is how adults speak with them; they did not like being spoken down to. They recommended talking with youth as equals.

Agreement with statement #10 suggests support for recommendation #10, from which it was derived. While realistic or current language is an important consideration, it can be difficult to deliver appropriately. Perhaps what is more important to youth is having conversations in which they are treated as equals because they are keenly aware of power imbalances in many of their interactions around mental health issues.

Statement 12: It is just as important to educate parents about youth mental health.

Group 1 supported this statement. One youth said that "parents must know what to look for—what signs or symptoms would indicate their child had a mental illness—so they can act quickly." Group 3 felt this statement was important because knowledgeable parents could improve the home environment. Group 4 also felt that informed parents could provide more resources to youth. Participants said that most youth look up to their parents, and perhaps with education, parents can put less mental and emotional stress on their children.

Agreement with statement #12 suggests support for recommendation #4, from which it was derived. The youth stressed the importance of educating parents to improve youth access to resources and to make their home environment less stressful. Most participants valued the support of close peers, but they also indicated a desire to turn to parents or guardians to discuss mental health issues.

Disagreement about statements

Youth were asked whether they strongly disagreed with any of the statements. Although this was not a formal activity (e.g., pick the statement you most disagree with and explain why) and was not systematically recorded, we felt that it was important to highlight these areas of disagreement in order to potentially inform future actions and research.

Statement 5: Youth already have a lot of knowledge about mental health issues; they don't need more education.

Group 2 reacted strongly to statement #5. Participants felt that other youth believed that mental health or illness is "just a theory, it's not real" and that they "don't believe in that stuff." Group 3 compared mental health to bullying—people don't think they're being bullied and they might say "It doesn't affect me." As a result, they may not seek help or attend mental health–promoting events. Group 4 agreed, expressing the opinion that many youth think they might know about a lot of things, but participants felt this wasn't the case.

Overall, most groups disagreed with statement #5, thus suggesting agreement with recommendation #5. It seems that youth may not be as knowledgeable about mental health issues as may be thought. It seems that getting youth to acknowledge that mental health is an issue in the first place is itself a formidable task.

Statement 6: Schools and classrooms provide a confidential environment in which to discuss mental health issues.

Many participants questioned the appropriateness of classroom settings for discussing mental health issues. Participants in Group 1 said that the classroom is not a good place, as the "walls have ears." They didn't think youth would feel comfortable sharing their life stories in front of the class and that they would feel judged by teachers. Participants also spoke about the inherent power imbalance in classroom settings: "You can't tell your life story in front of the students. It isn't done. It's your business. Confiding in your teacher creates an imbalance. You confide. He doesn't. It creates an imbalance."

Group 2 participants recommended against picking out students who may not be comfortable discussing in a group setting. Participants in Group 4 said that students may not open up because they might be afraid of what others might think about them. On the other hand, Group 3 suggested that the classroom might be a good forum for youth who may not have family to open up to.

Overall, most groups disagreed with statement #6, suggesting support for recommendation #6. Classrooms may not be an ideal space for confidential sharing and discussions. There appeared to be some tension in deciding on appropriate settings for mental health promotion, as youth

generally felt that schools were a good place to promote health (since it is where they spend most of their time), but that classrooms were not the ideal setting within schools.

Concluding remarks

The opinions of youth generated from these four discussion groups have helped to generate nuanced interpretations of the findings from the 24 identified programs and aided in the prioritization of recommended actions.

Appendices

Appendix A: Youth engagement principles

Inclusiveness: Respect diversity, including opinion, religion, gender, race/ethnicity, sexual orientation, image, ability, age, geography and mental health. Remove barriers to participation.

Positive youth development: Promote a positive youth development approach.

Accountability: Develop standards of practice and accountability for youth engagement/development work, including responsibility for reporting back to youth.

Operational practices: Use operational practices that sustain youth engagement, for example, using adults as allies/partners with youth; youth-led and/or peer-to-peer initiatives; approaches that provide opportunities to youth for meaningful action; recognition of mutual benefit for adults and youth and demonstration that youth contribution is valued.

Strengths-based approach: Focus on youth assets, develop skills and build capacity (i.e., education; training; ongoing professional development; opportunities for group knowledge, skills and networks).

Flexibility and innovation: Remain open to new ideas and be willing to take risks and challenge established processes and structures. Be flexible to hear and respond to youth-initiated ideas.

Space for youth: Provide caring and supportive environments and spaces where youth feel safe.

Transparency: Be upfront about the purpose of engaging youth and ensure that outcomes of their engagement are clearly relayed and understood by youth.

Sustainability of resources: Ensure that youth engagement activities and initiatives are financially sustainable.

Cross-sector alignment: Co-ordinate, where and when possible, across non-government and government agencies and sectors to ensure alignment of youth-engagement approaches.

Collaboration: Share knowledge and facilitate action while fostering development of strong, lasting relationships.

Appendix B: Search strategy results

Appendix B1: Search strategy for peer-reviewed literature and results

Five databases were searched between August and October 2011: Medline, PsycINFO, CINAHL, the Psychological and Behavioural Sciences Collection for peer-reviewed literature and the Canadian Best Practices Portal for promising-practices literature. No limitations were placed on date of publication. Programs not reported or indexed in any of these databases would not have been retrieved in this part of the literature search. The following search terms were used to identify mental health promotion and prevention programming for youth and were appropriately adapted for each database: "youth," "adolescent," "teen," "teenager," "young adult," "young people," "mental health promotion," "mental well-being," "promoting mental health," "promoting mental well-being," "psychological well-being" and "mental illness prevention."

The number of records identified, and subsequent papers assessed and extracted, are presented in Table 4. Records were assessed through a review of titles and abstracts. Records were extracted after a review of the full papers**.**

Table 4. Records retrieved, assessed and extracted according to database

Database	Number of records retrieved	Number of records assessed	Number of records extracted
Medline	121	14	12 programs (comprised of 17 papers)
PsycINFO	271	19	
CINAHL	9	2	
Psychology and Behavioral Sciences Collection	197	14	
Canadian Best Practices Portal	58 (67, including9 duplicates)	14	10 programs (comprised of 26 records) (16 related papers identified)
Total	656	55 (63, including 8 duplicates)	22 programs (comprised of 43 records/papers)

Appendix B2: Search strategy for grey literature and results

A grey literature search was undertaken to locate programming that promotes youth mental health. This included online searches and contact with key informants to identify programs that have not been published in peer-reviewed journals. This was an important avenue to follow, as many community-based programs offer informal or formal evaluations on their own websites or

on external websites. We first manually searched key websites that addressed youth mental health in Ontario.

Key Ontario websites searched include:

- Children's Mental Health Ontario: www.kidsmentalhealth.ca/
- The New Mentality: www.thenewmentality.ca/
- YouthNet: www.youthnet.on.ca/
- Talking About Mental Illness (TAMI)—Centre for Addiction and Mental Health: www.camh.net/education/Resources_teachers_schools/TAMI/index.html
- Ontario Centre of Excellence for Child and Youth Mental Health at CHEO: www.excellenceforchildandyouth.ca
- Mind Your Mind (MYM): http://mindyourmind.ca
- Teen Mental Health: http://teenmentalhealth.org
- Evergreen: Child and Youth Mental Health: www.mentalhealthcommission.ca/English/Pages/evergreen.aspx

Although Ontario was our main geographical area of focus, in order to complement the national programs identified in the peer-reviewed literature, we also conducted a Google search, using key terms similar to those used to search the peer-reviewed literature. We visited each link from the first 10 pages corresponding to each search term for program evaluation reports.

Three separate searches were performed:

- "youth mental health Canada"
- "adolescent mental health Canada"
- "teen mental health Canada"

As part of the grey literature, experts in the field of youth mental health promotion across Canada were contacted and supplied with a list of identified programs and interventions to determine whether any programs had been missed. Two programs were identified (TAMI and MYM), comprising of five papers.

Appendix C: Selection criteria

Population

Include:

- Youth, adolescent, teen, teenager, young adult, young people
- Age ranges will be user defined

Exclude:

- Special populations (concurrent diagnosed mental health or illness conditions)
- Clinical populations (e.g., cancer)

Intervention

Include:

- Mental health promotion activities: universal and selective prevention/intervention
- Promoting increase in knowledge (e.g., awareness of mental illnesses, mental health literacy), changes in attitudes (e.g., anti-stigma campaigns) and behaviours (i.e., increase health-seeking behaviours)
- Engaging youth in programming as direct targets, participants or deliverers.

Exclude:

- Mental health promotion for youth with eating disorders; suicide prevention in youth with diagnosed depression
- Clinic or inpatient-based activities
- Adult programs (unless they have a dedicated youth component).
- Programs targeted at adults to improve youth mental health (e.g. reduce child abuse)

Comparison

Include:

- All study types

Exclude:

- Studies without an evaluation component
    - Reduction in lost work-days
    - Reduction in expenditure on judicial system and public welfare services

Outcome (Adapted from WHO 2002, p. 22)[19]

- Health impact
    - Reduction of incidence and prevalence of mental disorders
    - Improvement of quality of life
    - Improved physical and mental health
    - Increased coping skills and self-efficacy
    - Better psychological adjustment.
- Social impact
    - Increase in social skills, social support and peer attitudes
    - Better academic performance
    - Reduction in substance abuse, delinquency, school dropout.
    - Reduction in stigmatization and better understanding and acceptance of the mentally ill by the family and society
    - Increase in number of mutually supported programmes in the community
- Economic impact
    - Increase in economic benefits and productivity for the individual and community
    - Reduction in in-patient days in hospital
    - Reduction in costs incurred for treatment

Appendix D: Summary of included studies

Author Program/ intervention Universal/ Selective program	Setting and population characteristics (age/grade, gender, ethnicity)	Program objectives, description, challenges Youth engagement	Data collection method(s) Outcomes (individual, organizational, community, societal) Reviewer comments
Laurendeau, 1991[46] **Clip et vous** *Universal*	Greater Montreal Area, Quebec Social media campaign, school based Phase 1, *n* = 22 community colleges (70,000 students) Phase 2, *n* = 70 public and private colleges, 893 high schools Age: not specified Gender: not specified	**Objectives**: youth-led, youth-created mental health promotion campaigns to showcase youth strengths and develop messages using video clips under themes of social support and positive stress-management, using communication channels appropriate and appealing to youth **Description**: youth-oriented mental health promotion campaign using video clips Phase 1: video clip script competition at 22 colleges accompanied by mental health activities (information booths, conferences, theatre, radio, media) – six weeks of activities. Four winning scripts picked for professional production and launch at a live show with media coverage Phase 2: four clips as part of mental health promotion package (4 video clips, 1 presentation video – 30 min; 1 audio commercial, 50 campaign posters, 1 package user's guide – 30 pages, at rental cost of $25/week) distributed to high schools and colleges. Video clips to showcase stress management and social support as mental health strategies **Youth engagement**: youth created resource material	**Data collection**: survey 1-month post-script competition suggested 53% of 70,000 targeted students were reached. Live show launch was implied to be at capacity, with additional 200 people watching on TV. A 30-minute special aired on TV with an estimated reach of 350,000 homes (15% of all homes in Quebec). Two small-scale evaluations: (1)short-term impact of phase 1 campaign using structured interviews 6 weeks after end of competition with 403 college students (convenience sample, 51% male) at 9 colleges (response rate 95.2%) to assess awareness, participation, attitude towards social support and stress management; and (2) user-satisfaction at phase 2 using qualitative methods **Individual**: 52.2% heard about the program and 37% intended to participate. Attitudes towards mental health between people with different levels of program awareness were not significantly changed. Short-term impact: Encouraged people to express opinions about mental health **Organization**: 12 rentals/month and 8 video clip promotion packages purchased by high schools and colleges across Quebec (since October 1987 until publication of paper). Promotion package perceived to be of high quality and appealing to young people. Long-term impact: mental health promotion package

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		content (rungs 6 and 7 in Hart's ladder of engagement)	circulated in high schools and colleges **Reviewer comments**: lack long-term evaluation and unclear if rentals/purchases translates into use
Friedman, 1998[55] **Girls in the 90s** *Universal*	British Columbia School based (after school) Two Grade 6 groups; two Grade 7 groups, one Grade 8 group Age: pre-adolescent/adolescent Gender: female	**Objectives**: eating disorder prevention program that sought to problematize discourse around fat, develop self-esteem and build social support **Descriptions**: program held over 10–12–week period. Discussion group to discuss negative feelings; learn new skills (e.g., conflict resolution) and test new behaviours (role playing). 8–10 girls in each group. Use talking stick, art, journal writing, increase body awareness through movement **Challenges**: program with Grade 9 and Grade 10 students poorly attended **Youth engagement**: youth have a safe space for discussion (rung 4)	**Data collection**: short-term, anecdotal; self-reported data from girls **Individual**: less shy and embarrassed to speak to boys and teachers; more assertive; fewer negative feelings towards self. Girls also reported behaviour changes in themselves and others. Some parents were supportive of these changes, whereas others were not. Outside evaluator: program allowed for opportunity to talk about private feelings and receive support **Reviewer comments**: This program may not be readily delivered for a cultural/ethnic group where discussion of these topics may be inappropriate, or expectations or cultural concepts may differ around notions of "fat" or discouraged by parents/carers
Khanlou, 1999[67] Khanlou, 2004[68] **Adolescent self-concept and mental health promotion**	School based *N* = 8 participants Age: 15–20 (grades 9–12/13) Gender: female	**Objective**: participatory action research (PAR) model used to explore adolescent self-concept and mental health promotion for South Asian female high-school students. **Description**: 10 focus groups, weekly, 1 hour each. Topics discussed were identified by participants: stress from work, school and home discussed; as well as self-concept as related to body image, self-image, health/lifestyle,	**Data collection**: focus groups audio-taped for thematic analysis; questionnaire given at first focus group, participants asked to write down their mental health interests and what they thought would promote their mental health **Individual**: feedback included better understanding about selves and peers; acquired useful knowledge, improved well-being, and overall positive sense of self. Link between stress level and age

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Universal/ selective	South Asian	perceived control and choices, the importance of tradition/culture **Challenges**: small sample size, no description of sessions in terms of structure or facilitation, no pre-focus group measures for comparison **Youth engagement**: PAR framework placed adolescents' voices as legitimate sources of knowledge; adult initiated (rung 6–7)	(younger participants experienced less stress)
Wood et al., 2000[80] PHAC: Opening Doors[81] Opening Doors *Selective*	Ontario School based, elementary school *N* = 9 schools, 12 control sites; 167 at-risk youth in experimental group; control 120 Age: 13–17	**Objective**: drug prevention and delinquency program. Improve personal and social skills and child–parent relationships Long term: prevent and reduce substance use, deviant behaviour (e.g., property crime, violence), behavioural problems at school, truancy, school dropout Intermediate/short-term: academic improvement, positive attitude towards school, self esteem, attitude changes towards substance use, coping, peer pressure, social skills, positive peer and family interactions **Description**: 10 weeks, 1–2 times/week, 17 1-hour sessions. Youth in transition years between elementary school and high school. Concurrent student and parent program. Skill training approach for students, both instructional and peer support. Delivered by community	**Data collection:** for questionnaires administered at screening, pre-test, post-test (1 month after program completion) and follow-up (6 months after program) **Individual**: experimental group participants self-reported less frequent substance use, less supportive attitudes towards them, less theft, less susceptibility to peer pressure to violence, more positive attitudes towards school No effects observed for personal, social competence or life skills indicators (e.g., self-esteem, self-concept) **Reviewer comments**: authors state this is a labour intensive program, which may not be easily replicated. Authors state that having outside professionals not involved in disciplinary procedures was beneficial

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		health professionals and school personnel **Youth engagement**: develop skills, address transition period (rung 4)	
Josephson & Proulx, 1999[60] PHAC. Healthy Relationships: A violence prevention curriculum[61] **Healthy Relationships: A Violence Prevention Curriculum** *Universal*	Nova Scotia School based, classroom *N* = 6 schools, 433 grade 7–9 students; in 3 years, 1,143 students participated Age: 13–17	**Objective**: promote gender equality and end violence **Description**: developing knowledge, skills and changing attitudes. (45 1-hour activities during class time). Program includes 53 student-oriented activities and resources, delivered over 3 years **Youth engagement**: youth-targeted (rung 4)	**Data collection**: pre–post test measures completed by students on behavioural intentions, attitudes, knowledge, relationship satisfaction **Individual**: decrease incidents of physical violence, psychological abuse, passive aggressive tactics, injuries in conflicts with friends and dating partners In all three grades: more likely to use assertive response than aggressive response and recognize swearing and intimidation as abuse. Appear to change behavioural intentions if observe abuse **Reviewer comments**: evaluation methods differed year to year
Khanlou, 2002[69] **Mental Health Promotion among Newcomer Female Youth**	Toronto, Ontario School based *N* = 10, from two secondary schools and ESL program	**Objective**: mental health promotion among newcomer female youth **Description**: 2 groups, 2 focus groups each: 1st group discussed self-esteem; 2nd group was follow-up discussion; facilitated by researchers but under PAR model, participants decide how their mental health issues are to be studied	**Data collection**: youth asked to provide written feedback during second focus group session. Current self-esteem measured by visual analogue scale to assess feelings towards self. Two parent interviews **Individual**: greater understanding about selves and others; knowledge could enhance future relationships, self-esteem, recognition of their own resources and strengths; knowledge and

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Universal/ Selective	Age: mean 17 years (8 in Grade 12, 2 in Grade 10) Participants from Korea, China, Russia, Taiwan, Macao	**Challenges:** small sample size **Youth engagement**: PAR framework placed adolescents' voices as legitimate sources of knowledge; adult initiated (rung 6–7)	sense of empowerment
Josephson, 2002[71] Legge, 2002[70] Barter et al.,2005[72] PHAC. What's Love Got to Do with It? [73] **What's Love Got to Do with It?** Intervention designed by Canadian Red Cross	National/territorial School based, classroom presentations Age: 13–17 (grade 9–12 students) Evaluation in Winnipeg, Manitoba *N* = 2 intervention school; 1 control group School 1: *n* = 19 (15 girls) School 2: *n* = 78 (all	**Objective**: relationship violence prevention program (improving students' conflict-handling behaviour towards dating partner or friend, if not dating) **Description**: 2 1-hour or 4 30–min session during class time, delivered by Red Cross. Promote healthy and reduce unhealthy peer romantic relationships. Presentations emphasize communication, prevention skills, legal issues, community resources. Delivered by trained prevention educators. Written scenarios, group work, videos Discussed gender stereotypes in relationships; cultural, familial and media influences; types of abuse; cycle of violence; reasons why teens stay in abusive relationships; definition of sexual assault; how to help a friend; abusive relationship **Challenges**: small sample size for intervention group at follow-up; no power to detect changes **Youth engagement**: promote youth-directed model of	**Data collection**: pre–post test (both program and controls) 1 week before and 2 weeks after presentation; follow-up at 2–3 months. Indicators: knowledge about dating violence, attitudes towards female and male violence, self-reported behaviour **Individual**: decrease use of violence; greater awareness of female initiated abuse towards males, knowledge about how to help friends who have been sexually assaulted, able to identify emotional abuse Changes from pre to post for intervention group significant for knowledge only; not significant at follow-up. No changes in attitudes at any point between groups; both groups showed less acceptance of all forms of dating violence, maintained at follow-up. Some behaviour change, but not sustained at follow-up Four areas with significant improvements in intervention group, not found for control group: ways to help a victim of sexual assault; identifying emotional abuse as a type of abuse; causes of physical abuse; the cycle of violence

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The Hidden Hurt Project final report encompasses both this program and the RespectED: It's Not Your Fault Program (joint evaluation) [74] *Universal*	girls) Control: *n* = 36 (16 girls) Follow-up: only at school 1 and control school *N* = 126 completed pre and post-test questionnaires *N* = 50 provided pre-, post- and 2-month follow-up data Grade 9, age 13–15	abuse disclosure (rung 5)	**Reviewer comments**: evaluation took place one week after presentation; other data from unpublished evaluation of 129 Grade 9 students. There appeared to be changes that were not associated with the intervention; the author suggests this could be a function of normal maturation. Also, given that control and intervention both showed changes, questionnaire may have acted as an intervention. Knowledge variable were high at pre-test; large majority of participants were not dating therefore unable to measure dating violence behaviour, more indicative of violence between friends
Cameron et al., 2007[78] PHAC. Making Waves[79] **Making Waves** *Universal*	New Brunswick (program subsequently done in Montreal, Newfoundland, Labrador) School based; community/neighbourhood based	**Objective**: relationship violence prevention program for youth **Description**: 12–16–hour intensive weekend session. Primary program is annual "student retreat," which includes interactive workshops, discussion groups, drama presentations addressing violence, healthy relationships, gender stereotypes, media influences, power and control, skill development **Challenges**: highly motivated students were chosen,	**Data collection**: pre-post surveys of knowledge, attitudes and behaviour intensions regarding violence in intimate relationships. Teachers also completed evaluations **Individual**: learned new information about each topic; knowledge about healthy/unhealthy relationships; warning signs of dating violence; understanding abuse. Decrease acceptance of dating violence. Behavioural or behavioural intention change for communication and avoiding vulnerable situations. Students generally already knowledgeable of gender roles on dating violence

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	N = 303 students completed questionnaire Age: 13–17	therefore, unclear how other students would respond **Youth engagement**: young people as partners/peer educators, participated in program design (rung 6–7)	 **Organization**: Increase self-confidence to create dating violence prevention initiative at their school (e.g., assemblies, classroom presentations, announcements, posters, workshops/plays) **Reviewer's comments**: only half of the students followed through with delivering violence prevention initiative
Wolfe et al., 2003[62] PHAC. Youth Relationships Project[63] **Youth Relationships Project** *Selective*	Canada Community/neighbourhood based (e.g., youth centres) *N* = 191 youths participated in 4 years; 158 available for follow-up Age: mean 15 (14–16) Gender: 92 boys, 99 girls Ethnicity: 85% Caucasian, 8% First Nations, 3% Asian,	**Objective**: to help at-risk youth (e.g., history of child maltreatment) to develop healthy, non-abusive relationships **Description**: 18 weekly, 2-hour sessions for small group, 6–10 participants/group. Control group continued to receive standard services from Child Protection Services To help youth understand gender-based violence, develop skills and propensity for social action (e.g., personal responsibility, communication, community participation) through education; teaching communication skills. Foster empowerment through social action projects Delivered by female and male professionals who role model positive relationships skills (e.g., power sharing, assertiveness) **Challenges**: group format may produce negative effects for some participants, similar to group effect for youth with conduct issues	**Data collection**: random two-group, two-level growth curve design applied to individual-level longitudinal data. Interview and completion of assessment measures at pre-test and then at 4 months. Bimonthly contact by telephone to determine whether engaged in dating relationship for 1 month or longer; if so, completed questionnaire on their relationship. Face-to-face interviews scheduled at 6-month intervals **Individual**: reduction in physical and emotional abuse against dating partners faster rate than controls. Reported less physical, emotional, threatening forms of abuse by partners Did not show expected positive changes over time for healthy relationships skills; group format may not have been preferable for this group **Community**: youth-centred approach, where youth "take action" against attitudes and behaviours against violence (e.g., fundraiser or community awareness) **Reviewer comments**: unclear if social actions are youth directed

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	4% African-Canadian	**Youth engagement**: youth-centred approach, where youth "take action" against attitudes and behaviours against violence (e.g., fundraiser or community awareness) (rung 4)	initiatives
Doucette, 2004[40] **Walk and Talk** *Selective*	Alberta School based 1 school; *n* = 8 students Age: 9–13 Gender: 7 male, 1 female	**Objectives**: to feel better, explore alternative behavioural choices, learn new coping strategies. Combines mild aerobic exercise, the outdoors and counselling to promote positive life skills **Description**: behaviourally challenged students engaged in 8–week program (30–45 mins/session) that involved walking outdoors (around school area) while receiving counselling **Challenges**: focused on special group of behaviourally challenged, at-risk youth; small sample size **Youth engagement**: Youth as experts (rung 4-5)	**Data collection**: students' self-report measure of benefit from intervention. Art used to assess self-esteem pre- and post-intervention. Students drew self-portraits and noted their strengths and weaknesses (assessed by interventionist). Triangulation of data through discussions with teachers. Asked whether students were making pro-social behavioural choices and expressing feelings of self-efficacy and well-being **Individual**: clarified feelings; experienced feelings of well-being
Ross, 2004 (Hamilton) Watters & Hogan, 2009 (Durham) 2010 (Kingston) Thompson &	Ontario Halton region Secondary schools (grades 11 & 12), community settings 22 of 34 events evaluated; only 5 of	**Objective:** Program objectives: 1) reduce stigma associated with mental illness; 2) educate and raise awareness about mental illness; 3) empower individuals with mental illness; 4) provide information about local resources. Evaluation objectives: whether knowledge and awareness of mental illness and stigma improved after presentation and at 6–week follow-up **Description:** province-wide anti-stigma programs. Two	**Data collection:** *Halton & Kingston:* Before-after evaluation design (cross-sectional sample; therefore, individual results unavailable). Pre-test before and immediately after education session, then at 6 weeks after session. Self-reported. No 6-week follow-up in Kingston ***Hamilton****:* pre–post test; unclear whether cross-sectional

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Tucker, 2011 (Halton) **Talking About Mental Illness (TAMI)** [48, 49, 50, 51] *Universal*	22 events completed at 6–week follow-up 370 students, 618 surveys returned (255 (pre); 258 (post); 102 (6 weeks) – total 615). 94 students completed 6–week follow-up **Kingston region** 250 students from 6 secondary schools Age: 15+ **Durham region** Two data collection periods; cohort 1 had control, cohort 2 had no control *N* = 1841; 816 pre-	sessions with teachers in classrooms (part of curriculum) Representatives from organizing agencies made educational presentations to youth on specific mental illnesses; volunteers (2–4) then spoke to youth about personal experiences with mental illness followed by discussion, interaction and debrief by teachers (in class) Durham. in-class and Stomping Out Stigma (SOS) annual 1-day summit for student leadership to develop and run school-based anti-stigma, mental illness awareness campaigns. 1–2 school staff, 3–4 student representatives from 30 regional schools **Challenges**: lower sample sizes for males versus females. Only 1 control group, used at 2 time points for comparison. Halton**:** only 5 events evaluated, may not be representative **Youth engagement:** program specifically developed for youth (rung 4)	*Durham:* self-reported survey to assess levels of knowledge and attitudes towards mental illness (stigma reduction). Qualitative post-test feedback also collected. Pre-post data matched by birth dates Summit conferences participants filled out pre- and post-test on same day; in-class participants filled out post-test 1–4 weeks after completing program **Outcomes:** *Halton:* Individual–increases in where to find support/help for mental illness; increases in knowledge recorded for each question (mental illness, mental health in general, how people cope, different approaches to help friends and family with mental illness/health concerns; how to recognize signs of mental illness).Understanding key messages–small but statistically significant improvement. School environment–no significant changes in connectedness to classmates, but knowing a trusted adult increased. 6-week–increases in self-rated knowledge, understanding of key messages sustained, but not significantly different from post-scores *Kingston:* Individual–significant increase on all knowledge questions and positive changes for 7 of 10 stigmatizing attitudes question. Positive student evaluation of TAMI *Durham:* Individual**–** increased knowledge, improved attitudes for 4 intervention groups; no changes for control group. No differences between effectiveness of programs, no gender

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	test/post-test matches for cohort 1; 744 for cohort 2 645 male; 1196 female In class: grades 9–11, majority Grade 9		differences in program effectiveness. Qualitative feedback suggested that students enjoyed speakers' stories the most. Positive program feedback Attitude was significant but moderate compared to knowledge gain **Reviewer comment:** presentations increased knowledge about mental illness; understanding key messages improved when delivered by someone with history of mental illness. Speakers were diverse with varying age at onset of mental illness, symptom profiles, and diagnosis. Authors' cite literature on adolescents as one of best targets for mental health and anti-stigma campaigns because adult attitudes develop during this phase
Barter et al., 2005[72] PHAC. RespectED: It's Not Your Fault **RespectED: It's Not Your Fault** *Universal*	Pacific, Atlantic, Prairies, Central, First Nations communities School based/community based (e.g., recreation, sport facilities, youth camp) Age: 13–17	**Objective**: violence prevention **Description**: Two 22–hour programs, 12 in-school sessions, each 1–2 hours. Student program: 5 sessions, 1–2 hours Program delivered in small groups; video clips, interactive activities to support curriculum, discussions of case studies and clips **Youth engagement**: realistic scenarios; youth relatable content (rung 4)	**Data collection**: qualitative (in-depth interventions, focus groups, participant observation) and quantitative (individual behaviour measures: combined abuse knowledge and attitudes scale) **Individual**: presentations improved knowledge and attitudes towards abuse. Students in comprehensive condition continued to make gains at follow-up, whereas gains maintained at follow-up for external and teacher-led presentations **Reviewer comments**: students like the realistic scenarios, contemporary style and ways of speaking. Comprehensive approach most impactful

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	Evaluation in Atlantic Canada in 2004: 4 research conditions: 1. respected staff led presentation, *n* = 48 2. teacher led presentation, *n* = 44 3. respected staff + teacher + students + parents (comprehensive) *n* = 49 4. wait list, *n* = 65 Age: 12–15		
Stuart ,2006[47] **Reaching Out Anti-stigma program** *Universal*	Across Canada School based *N* = 571 students from 8 high schools (3 from British Columbia; 1 from Alberta, 1 from	**Objective**: to determine impact of video-based anti-stigma program for high school students **Description**: 20–min video on signs and symptoms of schizophrenia, featuring individuals sharing real-life experiences with schizophrenia (2 sessions) First session: students discuss video, review facts, address misunderstandings, role of stigma and discrimination and	**Data collection:** pre-post test design to measure short-term impact of program on knowledge of schizophrenia, treatment and self-reported socially distancing behaviours. Post-test immediately after final class discussion **Individual**: students significantly increased knowledge & improved attitude towards schizophrenia and treatments, decreased social distancing. Impact varied by age (social distancing improvements greatest among ages 15–16) and

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	Ontario, 3 from Newfoundland) Age: 13–18 Gender: 50% male	care. Facilitated by member of local Schizophrenia Society. Second session: Role playing used to reinforce learnings **Challenges:** cross-sectional sample (pre- and post- sample not matched) **Youth engagement**: youth participate in discussions (rung 4)	gender (females showed greatest improvement in knowledge, social distancing). Improvements comparable to program featuring direct contact with individuals with mental illness **Reviewer comments**: students appeared to already be quite knowledgeable about schizophrenia before the program
Davidson, 2006a[42] Davidson, 2006b[43] Ramey, 2010[41] **Youthnet** *Universal*	Eastern Ontario and Western Quebec Community based Since 1995, more than 12,000 youths have participated Age: 13–20	**Objectives**: increase communication, awareness of mental health and illness; identify youth at risk and link them with appropriate services; reduce stigma via education and communication; listen to youth perspectives; implement youth appropriate services **Description**: mental health focus groups as part of mental health promotion program. (~12 week support groups). Focus groups led by older youth (age 20–30); mental health professionals used as safety nets. Sessions held without teachers and workers in order to build trust and maintain confidentiality Focus group format altered for mainstream settings (e.g., traditional high schools as classroom settings were not perceived to be confidential); 2-part focus groups separated by a week and led by same group of facilitators to help build rapport	**Data collection**: pre-post test survey. **Individual**: feeling less alone in dealing with issues; better understanding of mental health and illness after focus groups **Reviewer comments**: difficult for thorough evaluation, as positive outcomes may be a result of program or other factors

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		Programs designed to engage youth and demonstrate ways of coping with stress (e.g., snowboarding, art, hiking using peer support, group acceptance, and sense of belonging). Reduce stigma via education and communication **Youth engagement**: Youthnet is a bilingual mental health organization run by youth for youth (rung 7–8)	
2007. Healthy Relationships for Youth[76] PHAC. Healthy Relationships for Youth[77] **Healthy Relationships for Youth** *Universal*	Nova Scotia School-based *N* = 5 schools in Antigonish and Guysborough counties Age: 13–17 First Nations and other Aboriginal people; Mi'Kmaq and African Nova Scotian community	**Objective**: violence prevention through skills development and knowledge to develop and maintain healthy relationships **Description**: 12 sessions within Grade 9 curriculum. Increase student understanding of racial/cultural diversity; explore violence from gender-based perspective, foster youth development through peer support, youth empowerment, youth-adult partnership, experience-based learning. Improve interpersonal communication and positive decision making regarding their own behaviour **Challenges**: hard to measure short-term impact, as targeting long-term goals, with education programs. No control group, convenience sample **Youth engagement**: youth as facilitators for focus group conducted by a coordinator (rung 6–7)	**Data collection**: qualitative: in-depth open-ended interviews, and focus groups. Quantitative: pre-post survey of knowledge and attitudes towards violence in intimate relationships **Individual**: 60 surveys completed by grade 9 students in 2006/2007. Students' preferred interactive components to written materials (workbook and handouts); support for peer facilitators. Improved knowledge and attitudes towards violence in intimate relationships. 80% rated program good or very good
Santor et al.,	Online (Nova	**Objective:** determine frequency of use and impact of	**Data collection:** Two self-report surveys, 1 year apart. Web

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2007[52] **YooMagazine** *Universal*	Scotia, Canada) & school-based 558 (27%) students in grades 7–12 from 4 schools logged on at least once; 455 (82%) completed survey. 1775 (86%) completed year-end survey Age: mean 14.5 for 455 students who logged on	online website to promote health literacy, early detection of difficulties, help seeking in middle school and high school youth **Description:** YooMagazine, interactive online health magazine, available 24 hours throughout school year. 2 health professionals answered posted questions. Students registered for free to access content. Most questions concerned sexuality or relationships, small minority addressed mental health and behaviour specifically **Youth engagement**: developed for youth, youth relatable content (rung 4)	satisfaction assessed with online questionnaire after third visit **Individual:** Students logged on >11,000 times during 1-year period. Positive web satisfaction scores reported by 439 of 480 visitors. More frequent log-ons, information viewing, posting/viewing questions recorded for females, students seeking professional help (mental health visits to school health center and visiting school guidance counsellors), those reporting depressive symptoms and more severe mood problems. Students using website from 1 a.m. to 7 a.m. more likely to report distress than students who accessed at other times. Those with greater health needs tend to use internet-based health resource. Use associated with help seeking but unrelated to health outcome **Reviewer comments**: agree with authors' conclusion that a school-based health information website allows for early identification of mental health issues. Also agree that website alone is unlikely to improve health without more targeted or specific interventions for the students in need. Study was not designed to examine the direct impact of website use on help seeking or direct health outcomes
Stewart, 2007[45] Stewart, 2009[44] **Support intervention to**	Edmonton, Alberta Community based (recreation centre) *N* = 56 homeless	**Objective**: support intervention for homeless youth to optimize peer influence, reduce loneliness and isolation, enhance coping skills **Description**: 20–week pilot with 4 support groups, 3–4 hours/week, with option for one-on-one support	**Data collection**: needs assessment with 36 homeless youths and 27 service providers. Participants completed pre-, mid- (~12 weeks after first session) and post-test (end of 20 weeks) quantitative survey. Data collection methods changed at mid- and post-test to 1 survey with semi-structured questions

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promote health and coping among homeless youths *Selective*	youths Age: 16–24	Support provided by professionals and peer mentors, including formerly homeless youth, as well as group recreational activities (eg. swimming, bowling) and meals. Youth could approach mentors for support on homework and job and educational opportunities Social support through interactions with peer and professionals thought to improve coping, stress, loneliness, isolation **Challenges**: attrition over time, different collection methods used **Youth engagement**: Peer mentors with experience of homelessness acted as role models (rung 5–6)	**Individual**: increase size and changes to makeup of social network; increased satisfaction, but these were not statistically significant Decreased loneliness, negative relationships, substance use, involvement in unprotected sex Increased positive relationships, support seeking, self-confidence, and self-efficacy. Improved mood and stress reduction
Matsuba, 2008[75] **Future Cents Program** *Selective*	Northwest region of Canada, small urban area Community based *N* = 59 at-risk youth Age: mean 19.8 (SD = 2.6) Gender: 63% males	**Objective**: employment training program for at-risk youth in small groups (7-month program) **Description**: develop employment skills; improve psychological well-being; overcome barriers (e.g., substance abuse, literacy issues, and anger), learn on-the-job skills, including organizing and implementing projects for other youth in the community (e.g., cooking classes, youth housing registry). Work with staff to develop plans to overcome employment barriers At-risk youth defined as "homeless, is not in mainstream	**Data collection**: pre–post test surveys **Individual**: Of 85% who completed program, 88% found work or attend school 12 weeks after completion. About 10 youth hired full-time. Improved psychological well-being (life satisfaction; loneliness; self-esteem; aggressive behaviours). No difference for reactivity, empathy Comparing those who found work or attended school (*n* = 41) with those who did not (*n* =2), greater positive changes for those who were employed (with exception of loneliness)

Author Program/ intervention Universal/ Selective program	Setting and population characteristics (age/grade, gender, ethnicity)	Program objectives, description, challenges Youth engagement	Data collection method(s) Outcomes (individual, organizational, community, societal) Reviewer comments
	69% Aboriginals, 31% white	school, is unemployed or underemployed, misuses substances, has been or is in trouble with the law, and/or involved in an unhealthy lifestyle, and who is between 16 and 30 years old" (p.17). **Challenges**: small sample size; changes observed for differences between groups were non-significant **Youth engagement**: youth implement programs for other youths but largely adult initiated (rung 6–7)	**Community**: Youth working within community to help other youth
Crooks & Wolfe, 2008[65] Wolfe & Crooks, 2009[64] PHAC. The Fourth R: Skills for Youth Relationships[66] **The Fourth R: Skills for Youth Relationships** Developed from the Youth Relationships Project	Ontario School based, secondary school, classroom *N* = 950 schools in all provinces and territories as of 2008/9 school year; 350 schools in Ontario Cluster randomized trial with 2.5 year follow-up: pre-specified subgroup analysis by sex. *N* =	**Objective**: reduce risk factors: violence (bullying, peer and dating violence), substance abuse and unsafe sex **Description**: 21 skill-based lessons; 75-min. lesson; delivered by trained teachers to promote healthy relationships. Gender sensitive approaches. Each unit helped to clarify values, information, develop skills (e.g., decision-making). Adolescents participated in role playing. Older peers (grades 11–12) used to increase salience and for motivation **Youth engagement**: youth used as peer educators; student-led Youth Safe Schools (YSS) committees to link with wider community and parents (rung 6–7)	**Data collection**: pre–post test on knowledge and attitudes at 4 months; follow-up at 2.5 years after program. Primary outcome: self-reported physical dating violence during previous year. Secondary outcomes were physical peer violence, substance use, condom use **Individual**: changes in attitudes towards violence, substance abuse and sexual health, knowledge and ability to identify subtle forms of abuse. No changes in behaviour. Physical dating violence greater in control vs. intervention students (9.8% vs. 7.4%). Significant group X sex interaction effect indicated that intervention effect greater in boys than girls. Main effects for secondary outcomes not significant. Blinded evaluators evaluated participants as better at dealing with peer pressure (negotiation skills, resisting coercion) **Organizational**: 2.5 years later, physical dating violence greater in control school compared to intervention school. Males more

Author Program/ intervention Universal/ Selective program	Setting and population characteristics (age/grade, gender, ethnicity)	Program objectives, description, challenges Youth engagement	Data collection method(s) Outcomes (individual, organizational, community, societal) Reviewer comments
Universal	1722 students 14–15 (53% girls) Control school: similar objectives without training or materials 10 control schools, 10 intervention schools Age: 13–17		likely to use condoms. No significant difference in levels of peer violence, substance use
Omstead et al., 2009[85] Perry et al., 2009[86] **Whole School Mental Health Promotion** *Universal*	Calgary, Alberta Three elementary schools and one junior high school (results reported for junior high school only). All 4 schools in low socioeconomic area of city. 186 junior high school (grades 7–9) students completed	**Objective:** using whole-school approach to improve social environment at school: make students feel safe, connected, valued in order to improve mental health, reduce risky health behaviours **Description:** 4-year project. Data from baseline attitude, well-being and behaviours surveys and social network surveys fed back to schools to start discussion and action. Each school action team determined own needs, interventions, activities, professional development. Facilitator-led school-based action team (students, teachers, parents) to improve practices to orientate and welcome new students. Curriculum presented in Grade 8 during class-time over 10-week period	**Data collection:** Before-and-after mixed methods, cross-sectional design at two points. Survey at baseline and at one year; self-esteem and experience of school safety and connection assessed in year 1; social network (e.g., friendship, playing together, who they trust) assessed in years 3 and 4. Quantitative outcomes of interest: changes in connection to school, aspects of well-being, risk behaviours, changes in students' social networks at school. Qualitative: experience of project, perceived impact from perspectives of staff, teachers, parents (not related to youth) **Individual** (statistically significant findings): positive changes: increase in parental monitoring (parents knew where students were), less likely to be bullied, fewer instances of discrimination because of skin colour

Author Program/ intervention Universal/ Selective program	Setting and population characteristics (age/grade, gender, ethnicity)	Program objectives, description, challenges Youth engagement	Data collection method(s) Outcomes (individual, organizational, community, societal) Reviewer comments
	baseline; 203 at follow-up Gender: baseline 47% male; follow-up 41% male Nested cohort: *n* = 39 (25 F and 14M)	**Challenges**: pilot project; sample size small unable to detect clinically important effects. Evaluation not designed to test causal associations, no data collected in comparison schools. Contextual factors observed at school, effects for program unknown. Small sample size for nested cohort. Less intensive intervention than Australia, "contextual turbulence" may have tempered more positive findings **Youth engagement**: developed for youth (rung 4)	Negative changes: increased number of students who worried about keeping up with school work, more students reported average or below average school performance compared to other students. Perception of neighbourhood social cohesion worsened. Students felt less safe in hallways. Decreased school cohesion and feelings of general safety No changes: student's perceived support from family, friends, or from other important adults in their lives. Percentage of students with outcomes relating to smoking or drinking. No difference in reported delinquent behaviour; self-rated health, life expectancy or life satisfaction; depression score **Nested cohort**: worse perception of neighbourhood, more likely to be bullied, to have ever smoked, lower self-esteem, more likely to have drunk more than a few sips of alcohol **Reviewer comments**: Authors state pilot evaluation showed no significant improvement in mental health and well being, particularly in the junior high, many outcomes worsened (eg. sense of belonging, teacher support, and self-esteem and student voice). Improvements observed in students' social network, suggesting improvement in the environment
Macdonald et al., 2007[83] Turner et al.,	Simcoe County District School Board, Ontario	**Objective**: prevent onset of problem gambling **Description**: develop coping skills, increase knowledge about random events, link to emotional responses to	**Data collection**: pre–post questionnaires (were pre-tested with sample of 20 students) **Individual**: improvement in knowledge of random events was

Author Program/ intervention Universal/ Selective program	Setting and population characteristics (age/grade, gender, ethnicity)	Program objectives, description, challenges Youth engagement	Data collection method(s) Outcomes (individual, organizational, community, societal) Reviewer comments
2007[82] PHAC. Life skills, mathematical reasoning & critical thinking curriculum[84] **Life skills, mathematical reasoning & critical thinking curriculum** *Universal*	School based *N* = 101 control group; *N* = 100, experimental group Age: 15–18; grades 10–12 Gender: 66 male, 135 female	winning/losing (math concept). Use self-monitoring, self-awareness of emotions and beliefs to reduce risk of problem gambling (6 weeks, 6 lessons, each lesson ~70 min). Lesson delivered by teachers **Youth engagement**: instead of presenting gambling as bad habit, program concentrated on not being fooled by random chance and adults who design the game: drew on high-risk youth's distrust of adults (rung 4)	statistically significant for students in experimental group. Self-monitoring skills improved; improved knowledge of coping and random events Mixed/neutral outcomes in terms of actual improvement in coping skills **Reviewer comments**: while improved knowledge can be measured, more difficult to measure actual behaviour. Also, presenting adults as a common enemy may not be a good tactic to foster youth–adult relationships
Buote, 2009[56] Buote, 2010[57] Tutty, 2011[58] PHAC. Respectful Relationships program[59] **Respectful Relationships program**	National and British Columbia School based *N* = 31 schools, 78 different classrooms, 1748 students pre-test; 1582 students post-test in 2008/2009 school year	**Objective**: primary violence prevention program via education about relationships to stop bullying; interpersonal, personal, family abuse; foster positive relationships that respect diversity **Description**: 4-year, 48 session curriculum, 12 sessions/year, each year built on previous year. Provide information on risk, develop skills, provide education, foster behaviour change, and address discriminatory communication techniques. Provide safe space to share, test skills related to social competence (freedom from discrimination, social inclusion)	**Data collection**: pre-post test survey of knowledge and attitudes on violence in intimate relationships. Qualitative survey asked youth for their reasons for joining the team; best part of being on the team; most challenging part; and skills gained from being on the team **Individual**: positive outcomes for health and health behaviour, knowledge, skills, attitudes, intentions; ability to express thoughts/feelings; non-violent conflict resolution; self-awareness; belief in equal rights. Gender differences observed for some indicators. For females, empathy, self-awareness, discomfort, belief and ability to speak not significantly changed; for males, non-violent conflict resolution and self-awareness not

Author Program/ intervention Universal/ Selective program	Setting and population characteristics (age/grade, gender, ethnicity)	Program objectives, description, challenges Youth engagement	Data collection method(s) Outcomes (individual, organizational, community, societal) Reviewer comments
Universal	Age: 13–17 Gender: 51% male, 48% female	One female and one male facilitator demonstrate respectful relationships; youths engage in dialogue and role playing. Gender specific sessions. Youth facilitators were trained and acted as part of youth team **Youth engagement**: youth as co-facilitators (rung 6)	significantly changed **Community**: civic mindedness, social consciousness, empathy; discomfort with others being picked on; seeing people for who they are; ability to speak one's opinion **Reviewer comments:** only presenting female–-male interactions may be perceived as suggesting that heterosexual relationships are the norm
Crooks, 2010[54] **Strengths-based programming for First Nations Youth in School** *Universal*	London, Ontario School based (lunch time) Three secondary schools; *n* =150 youth participated in peer-mentored groups, over 200 students attended 1 of 4 conferences Age: not specified (grade 8–9) Gender: not specified	**Objectives**: addressing transition from middle school to secondary school in culturally appropriate manner. Skills development, promote positive social attitudes and relationships, strengths-based programming **Description**: peer mentoring (weekly, over several semesters) and adult mentoring (several times a semester). Leadership course and 4 conferences with help from local First Nations communities **Challenges**: giving up lunch time, getting consent, shortage of Aboriginal adult role models **Youth engagement**: peer mentors (rung 6–7)	**Data collection**: multiple methods (surveys, questionnaires, interviews, focus groups and official school data) with multiple informants (youth, educators, First Nations Counsellors and administrators) **Individual**: students involved in leadership course achieved higher grades and fewer absences; positive experience of participating in peer mentorship program, lower levels of anxiety and greater optimism and confidence reported among grade 8 students **Reviewer comments**: lack of follow-up for those no longer involved in the leadership program

Author Program/ intervention Universal/ Selective program	Setting and population characteristics (age/grade, gender, ethnicity)	Program objectives, description, challenges Youth engagement	Data collection method(s) Outcomes (individual, organizational, community, societal) Reviewer comments
	First Nations and Metis students make up 5–24% of students		
Garinger, 2010[53] **Mind your mind** *Universal*	Online, in-person/community-based, London, Ontario Online survey (getting help): *n* = 330, majority aged 15–17; 17% male; majority live in Ontario, BC, Alberta Online survey (how do you use the site): *n* = 65, majority aged 15–17; 9% male; majority live in Ontario, Manitoba, then BC, Alberta, Quebec Survey (Get Real): *n* = 10, age 15–2;,	**Objectives:** reduce stigma around mental illness, increase use of mental health services, supports. Information technology and youth engagement for prevention and early intervention for positive development **Description:** 7-month pilot research project with three components: 1) youth volunteer program: online and in person to work on mental health initiatives (e.g., networking sites, web-based coping tools, informational games, fact sheets, print materials) 2) website: frequently updated and youth-oriented to enhance help-seeking behaviour, disseminate accurate mental health information, and provide crisis referral information and early intervention. Does not offer specific treatment of mental illnesses 3) youth outreach program: volunteers and staff co-facilitate community outreach presentations and knowledge exchange activities with students in schools, youth groups, inpatient, & outpatient settings, health fairs, orientation week activities. Online virtual version available	**Data collection:** participatory evaluation with youth involvement. Web-based pop-up surveys on pages with high traffic. Surveys also given to in-person participants. Qualitative data (from activity logs, blogs, personal stories, art, comments, and emails) collected. Data collected from Jan. 2008 to Feb. 2010. Outcomes measured included attitudes, knowledge of mental illness, behavioural intention **Organizational:** 160% improvement in youth accessing formal and informal supports after using web-based resources. Face-to-face engagement processes improved knowledge, negative attitudes towards mental illness 65% of repeat users with self-reported mental health issues accessed formal services or informal supports after using tools and resources on the website Website use: 401,180 visits (752,656 page views) between Jan. 2009 and Dec. 2009. Correlations between length of time on website and reported tough times. Youth volunteer participants reported significant improvement in knowledge of mental illness and how to help others with mental health concerns **Reviewer comments:** one challenge is the gender imbalance—

Author Program/ intervention Universal/ Selective program	Setting and population characteristics (age/grade, gender, ethnicity)	Program objectives, description, challenges Youth engagement	Data collection method(s) Outcomes (individual, organizational, community, societal) Reviewer comments
	males *n* = 2; living in all Canadian provinces except Nunavut, Newfoundland, Saskatchewan Survey (Street Team): *n* = 9, 8 completed, ages 13–23, 2 males, living in London, Ontario Survey (Kids Help phone): *n* = 8, ages 12–16; 4 males; living in London, Ontario	**Challenges**: short time frame for evaluation (7-months); convenience sampling design; cross-sectional—individual responses not matched; small sample sizes. Website unavailable for a period due to loss of funding **Youth engagement**: website incorporates youth culture (e.g., music, celebrity profiles, story-telling, interactive gaming, video). Model of youth engagement: permission marketing allows youth to opt in or out of program at any time without judgment. Adult roles specified in terms of power, transparency. (rung 5–6)	more females than males responded to surveys. Allowing youth to access information, tools and resources contributes to ability to participate in their own self care, "including seeking help when it's needed." The author concludes MYM has developed and delivered effective ways to positively engage youth in their own mental health care. Both face–to-face youth engagement practices and the website were easily accessible resources

Appendix E: Program outcome indicators by topic

Table 5 presents a list of outcome indicators to target and evaluate, identified from the 24 programs included in this report. This list is by no means exhaustive and several obvious omissions are detected (for example, preventing suicide and decreasing suicidal thoughts, along with how to deal with depressive thoughts).However, this list allows potential program planners and evaluators to think through the outcomes they would like to target; how to measure program success, and what is feasible to capture using the tools available within often limited time frames and funding scenarios.

Table 5. Program outcomes according to mental health issue or topic

Abuse	• *recognize warning signs of dating violence* • *reduce acceptance of dating violence (emotional and physical)* • *increase knowledge of abuse* • *reduce psychological abuse e.g. passive aggressive tactics* • *increase communication about vulnerable situations* • *avoid vulnerable situations* • *identify subtle forms of abuse* • *identify emotional abuse* • *identify female initiated abuse towards males* • *see fewer instances of bullying* • *increase feelings of general safety*
Substance use	• *decrease use of alcohol and other drugs* • *clarify attitudes towards substance abuse*
Gambling	• *understand random events* • *learn how to cope with random events*
Mental health and illness	• *improve understanding/knowledge of mental health and illness (e.g., schizophrenia)* • *reduce social distancing from people with mental illness (e.g., schizophrenia)* • *express opinions about mental illness*
Others	• *reduce social distancing from people with schizophrenia* • *improve understanding of others* • *develop skills and confidence to speak to others (e.g., boys and teachers)* • *improve social networks* • *identify a trusted adult*

Physical violence	• *decrease aggressive behaviour* • *reduce incidents of physical violence* • *reduce injuries in conflicts with friends and dating partners* • *clarify attitudes towards violence* • *develop skills to use non-violent conflict resolution*
Relationships	• *differentiate between healthy and unhealthy relationships* • *clarify attitudes towards violence in intimate relationships* • *increase number of positive relationships* • *foster ability to enhance future relationships*
Self	• *improve understanding and awareness of self* • *increase assertiveness, confidence, efficacy, sense of empowerment* • *increase overall positive sense of self* • *increase well being (e.g., life satisfaction, mood)* • *reduce negative feelings (e.g., anxiety)* • *reduce negative feelings towards self (e.g., loneliness, stress)* • *express opinions about general thoughts and feelings* • *foster recognition of own resources and strengths (e.g., ways to help a friend who has been sexually assaulted)* • *develop ability to deal with peer pressure* • *improve support seeking abilities*
Sex	• *reduce incidents of unprotected sex* • *clarify attitudes towards sexual health*
Theft	• *reduce theft*
Transition periods	• *improve experience of transition periods (e.g., middle school to high school)*
Well-being	• *clarify feelings and experiences of well-being*

Appendix F: Program outcome indicators by objective

Table 6 presents outcome indicators for knowledge, attitudes and behaviours that can be mixed and matched across columns to inform program development, or they can be independently assessed to gauge program success. Organizing these indicators by objectives can foster a targeted approach and focus attention on primary and secondary program goals.

Table 6. Program outcomes presented by objective

Decrease	Increase	Clarify	Develop
anxiety	well-being	**feelings**	Employment skills
negative feelings	**confidence (shyness, embarrassment)**	opinions (e.g. schizophrenia)	**Social networks**
loneliness	confidence in ability to perform skills	**attitudes (e.g. social distancing)**	positive relationships (with **parents, friends, peers, partners)**
negative relationships	**assertiveness**	stereotypes	empowerment
stress	employment	**media influences**	**communication skills**
drug and alcohol use	**satisfaction**	power balances	resistance to peer pressure (e.g. negotiation)
unprotected sexual	self-esteem	**values**	**ability to discontinue** dissatisfying relationship
acceptance of physical/sexual violence	**knowledge (e.g. abuse)**		**coping skills**
physical violence	employment opportunities		self-monitoring (e.g. of emotions and beliefs)
stigma	**body satisfaction**		**self-awareness**
bullying	intentions to act on seeing abuse		resiliency
deviant behaviour (e.g. property crime)	**social support**		**self-concept**
behavioural problems at school	general safety		healthy relationships
truancy			**Problem solving skills**
school problems (dropout, grades)			decision-making skills
discrimination			**ability to identify forms of abuse**
self-injurious behaviour			support seeking abilities

Appendix G: Glossary of terms

Best/promising practices engage with the overall objective of health promotion, including health promotion values, theories and settings, alongside evidence, to achieve desired health promotion goals.

Reference: www.idmbestpractices.ca/pdf/IDM-HPP.pdf

Evidence-based practices rely on "experimental methods, quantitative data collection and analysis, and identification of linear cause and effect relationships." For health promotion, these practices describe an approach that values both quantitative and qualitative methods in an attempt to understand the human experience and that emphasizes the influence of the social determinants of health.

Reference: http://heapro.oxfordjournals.org/content/15/4/355.full.pdf+html

Health promotion is a "process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living."

Reference: www.who.int/healthpromotion/conferences/previous/ottawa/en/

Mental health is a term that describes "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his or her community." Going further, mental health is "the capacity of each and all of us to feel, think, and act in ways that enhance our ability to enjoy life and deal with the challenges we face."

Reference: www.who.int/mental_health/media/en/545.pdf and www.phac-aspc.gc.ca/publicat/human-humain06/pdf/human_face_e.pdf

Mental health promotion refers to the "process of enabling people to increase control over, and to improve their health." It involves building the capacity of individual and communities to exercise control over their lives. Mental health promotion shares similar goals to health promotion as outlined in the *Ottawa Charter for Health Promotion*: build healthy public policy; create supportive environments; strengthen community action; develop personal skills; and re-orient services towards promotion, prevention and early intervention. Mental health is distinct from health promotion through two related concept of power and resilience.

Reference: www.who.int/hpr/NPH/docs/ottawa_charter_hp.pdf

Mental illness is related to mental health, but specifically refers to the diagnosed disorders. It refers to "thought, behavioural or emotional impairments as a result of genetic, environmental, biological and psychosocial factors. Mental disorders cause distress and can interfere with a person's ability to copy with daily life and may disrupt their work, social and family life. Individuals experiencing a mental illness may have problems with behavioural and emotional control, communication and their sense of reality may become distorted."

Reference: www.cmha.calgary.ab.ca/mentalhealth/Types_of_Mental_Illness/Index.aspx

Mental illness prevention involves intervening with risk factors before the onset of illness or to reduce disabilities after the onset of mental illness. Mental health promotion and mental illness prevention can share similar strategies because the concepts of promotion and prevention overlap.

Reference:
http://www.who.int/mental_health/evidence/en/prevention_of_mental_disorders_sr.pdf

Power relates to the notion of control over life, but the concept extends beyond individual control to that of group or community. Power can be enhanced by emphasizing existing capacities.

Reference: www.camh.net/About_CAMH/Health_Promotion/Community_Health_Promotion/Best_Practice_MHYouth/theory_def_context.html

Protective factors are elements that can be present at the individual, interpersonal and community and societal levels. They include adaptability, sense of security and feelings of mastery, coping and problem-solving ability; feelings of optimism; resilience; family harmony; positive parent–child interactions; achievement and recognition in school or work; community tolerance; social inclusion, civic engagement and participation; and access to economic resources, services and supports.

Reference:
http://knowledgex.camh.net/policy_health/mhpromotion/mhp_childyouth/Pages/protective_factors.aspx

Resilience refers to the ability of an individual, group or community "to recover from difficulties or change—to function as well as before and then move forward. Many refer to this as "bouncing back" from difficulties or challenges." Resilience is related to risk and protective factors.

Reference:
http://knowledgex.camh.net/educators/elementary/Pages/elementary_resilience.aspx

Risk factors are elements that can be present at the individual; interpersonal and community and societal levels. They can include physical illness; parental mental illness; academic failure; family distress; peer alienation; work stress and unemployment; lack of social support; poverty; violence and trauma; discrimination; social exclusion and social injustice.

Reference:
http://knowledgex.camh.net/policy_health/mhpromotion/mhp_childyouth/Pages/risk_factors.aspx

Social determinants of health "are the conditions in which people are born, grow, live, work and age, including the health system. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels, which are themselves influenced by policy choices. The social determinants of health are mostly responsible for health inequities—the unfair and avoidable differences in health status seen within and between countries."

References: www.who.int/social_determinants/en/

Youth refers to young people in a specific age range that differs by country and organization. These age ranges designating youth determine legal responsibilities and access to services, capture significant transition points from child to youth and then from youth to adult, as well as representing particular and significant experiences and life events. This category is as diverse as the society at large; typically, the age range for youth is between 12 and 24 years of age.

Youth engagement is defined as "the meaningful participation and sustained involvement of a young person in an activity, with a focus outside him or herself." Meaningfully engaging youth has been linked to lower rates of depression, anti-social and criminal behaviour, school failure and dropout, substance use and sexual activity and pregnancy in girls.

Reference: www.tgmag.ca/aorg/pdf/Whatis_WEB_e.pdf

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