Focus On: Alcohol screening, brief intervention and referral

August 2017

Introduction

There are many alcohol policies, strategies and interventions which have been recommended to reduce alcohol consumption. One of these interventions is alcohol screening, brief intervention and referral (SBIR).[1] SBIR is targeted towards individuals who are consuming alcohol above recommended guidelines but do not qualify as alcohol dependent.[1] SBIR is a comprehensive public health approach that aims to identify individuals who are consuming alcohol beyond low-risk consumption levels through universal screening measures.[2,3] For individuals identified as being at risk, a brief intervention (BI) is delivered followed by a referral to treatment where appropriate.[3]

This Focus On provides an overview of the landscape for SBIR in Canada and summarizes its individual components while exploring the effectiveness of SBIR in different settings, its role in public health, and the main challenges and limitations associated with implementation.

Background

Alcohol is the most widely used substance by Canadians[4] and has individual and societal impacts.[5] Short term risks of alcohol use include increased injury and violence while long term use is associated with increased risk for diabetes, several types of cancers and serious medical conditions such as cirrhosis, pancreatitis, low birth weight and fetal alcohol spectrum disorder.[4]

A significant proportion of the Canadian population consumes alcohol at levels above Canada's Low-Risk Alcohol Drinking Guidelines (LRDG).[6] The LRDG were published in 2011 in response to a growing body of evidence highlighting the risks associated with low levels of alcohol consumption. Furthermore, the LRDG were developed to address recommendations made within the proposed National Alcohol Strategy, *Reducing Alcohol-Related Harm in Canada: Toward a Culture of Moderation.*[6] The guidelines include five recommendations intended to advise Canadians on strategies to minimize the risks associated with alcohol consumption.[6] The guidelines are displayed in Figure 1.

Reproduced with permission from the Canadian Centre on Substance Abuse.
Figure 1: Canada's Low-Risk Alcohol Drinking Guidelines

According to the 2012 Canadian Alcohol and Drug Use Monitoring Survey, 78.4 per cent of Canadians 15 years or older reported drinking alcohol in the past year with 14.4 per cent and 12.8 percent exceeding guidelines one and two respectively, increasing their risk for chronic and acute consequences of alcohol consumption.[7] Alcohol consumption also comes with a significant financial burden. The last published cost study occurred in 2002 and found that 2.4 per cent of deaths among adults aged 69 years and younger were attributable to alcohol consumption[8] and the total cost of alcohol misuse was an estimated $14 billion dollars.[9]

Methods

The information presented in this Focus On is derived from a literature review conducted by Public Health Ontario (PHO) Library Services using a number of databases (MEDLINE, Embase, CINAHL, PsychINFO, SocINDEX, Health Policy Reference Centre) to identify studies published within Canada relating to SBIR. A general search of available resources was conducted using Google Scholar and additional PHO Library Resources to gather evidence when Canadian evidence was not available. English-language articles retrieved through the search were assessed for eligibility by one reviewer. Full text articles were retrieved, reviewed and relevant information was extracted from each article.

SBIR in Canada

In 2007, the National Alcohol Strategy Working Group put forth recommendations to reduce alcohol-related harm. One of them was to "develop integrated and culturally sensitive screening, brief intervention and referral tools and strategies".[10(p.12)] Since their release, other organizations and associations have supported these recommendations. For instance, the Canadian Centre on Substance Abuse, in partnership with The College of Family Physicians of Canada, developed the *Alcohol Screening, Brief Intervention and Referral: Helping Patients Reduce Alcohol Related Risks and Harms* resource which is a tool for health professionals to assist patients in managing their alcohol consumption.[11] It outlines the components of SBIR and includes protocols and resources for each part of the approach.

In Ontario, the Registered Nurses Association of Ontario (RNAO) released the Clinical Best Practice Guidelines titled *Engaging Clients Who Use Substances*.[12] Within the guidelines, the RNAO recommend all patients be screened, and if an individual is identified as *at risk* for a substance use disorder, they receive a BI. Similarly, in 2013 the Ontario Medical Association published a policy paper which included a recommendation to implement SBIR across Ontario.[13] Also, the Public Health Ontario/Cancer Care Ontario Prevention Working Group, and the Alcohol Locally Driven Collaborative Project both released reports recommending the implementation of BI and counselling services.[14,15] As well, the Association of Local Public Health Agencies (alPHa) supports the implementation of SBIR in Ontario.[16] Last, the 2012 report *Taking action to prevent chronic disease: recommendations for a healthier Ontario* from Public Health Ontario and Cancer Care Ontario recommends SBIR be used to address issues associated with alcohol consumption.[14]

A closer look at SBIR

SBIR is an early intervention strategy intended to reduce alcohol consumption and alcohol-related harms by motivating heavy drinkers to reduce their alcohol consumption levels.[1] In 2008, it was reported that SBIR was the most effective intervention for avoidable burden due to mortality, years of life lost, and morbidity.[17] Furthermore, BI were seen as the most effective intervention at curbing avoidable costs in health care and criminality.[17] The individual components of SBIR are discussed in detail below.

Screening

Screening is intended to identify patients who are consuming alcohol above low-risk levels to determine if they are in need of an intervention.[11] During screening health professionals can determine what, if any, intervention would be necessary for the patient.[11] This is often done by asking targeted questions regarding their personal alcohol use.[18] Screening can be delivered by multiple health professionals (e.g. doctors, nurses, social workers) within different health care settings (e.g. community health service clinic, general practitioners office, emergency department).[19] There are many screening tools which can be used during the screening process. Those most commonly used include:

Alcohol screening, brief intervention and referral: Helping patients reduce alcohol-related risks

This screening tool developed by The Canadian Centre on Substance Abuse and The College of Family Physicians of Canada assesses patients by using three questions that are based on the LRADGs. The tool classifies patients into three groups based on level of risk: "Elevated Risk", "Alcohol Abuse" and "Alcohol Dependence". Currently, there is no published literature indicating the effectiveness of this tool.[11]

Alcohol Use Disorders Identification Test

The Alcohol Use Disorders Identification Test (AUDIT) is a screening tool which includes ten questions that aim to identify individuals with hazardous and harmful alcohol consumption levels as well as "less severe forms of drinking".[20] The tool is seen as quick and easy to administer.[21] It was developed by the World Health Organization and is intended to be used when screening adults. The AUDIT has been successfully administered within the emergency room setting and with primary care patients; however it has been found not to be as accurate when used to screen the elderly population.[21]

- ***AUDIT-C:*** The AUDIT-C is an abbreviated version of the AUDIT and includes the first three questions from the AUDIT. The AUDIT-C is believed to be more sensitive than AUDIT, however is less specific when used with heavy or dependent drinkers.[21]

CAGE questionnaire: Cutting down, annoyance by criticism, guilty feeling and eye-openers

The CAGE questionnaire includes a series of four "yes" or "no" questions: have you ever felt you should *Cut Down* on your drinking; have people *Annoyed you by criticizing* your drinking; have you ever felt bad or *Guilty* about your drinking? Have you ever had a drink in the morning to get rid of a hangover? (*Eye-opener).*[20] CAGE is suggested to have a high test-retest reliability, as well as sufficient validity to detect alcohol abuse and alcohol dependence. The CAGE questionnaire is not suitable for heavy or hazardous drinking.[20]

Brief Intervention

Based on the results identified during screening, an individual may receive a BI which often includes delivering individualized feedback and/or patient counselling.[18] The intervention is usually delivered in the form of a motivational interview (MI) and varies in length.[18,19] An MI is a specific type of counselling that focuses on increasing an individual's self-efficacy. Based on an individual's readiness to change, varying intervention options are available.[11,19] One of the main objectives of the intervention is to have a non-confrontational conversation with the patient and motivate them to make changes to the amount of alcohol they consume.[18]

Typically, BIs in Canada have been delivered using the six essential elements of the FRAMES model:[18]

- Feedback: provide feedback for the individual regarding their risk
- Responsibility: focus on the fact that the individual is responsible for change
- Advice: provide advice for the individual to either reduce consumption or make a specific change
- Menu: provide the individual with a menu of options for change
- Empathy: show empathy to the individual throughout the intervention
- Self-efficacy: focus on increasing the individuals self-efficacy

Referral

The referral component of SBIR is delivered on an as needed basis[18] as it is intended for individuals who are identified as alcohol dependent.[22] It can take on many different forms with some patients referred to community support groups or specialized treatment services.[11]

SBIR use in various settings

SBIR has been implemented in a variety of different settings with varying levels of effectiveness. The proposed National Alcohol Policy Strategy suggests SBIR be implemented within community settings, health service clinics, general practitioners offices, and emergency departments.[10]

SBIR carried out within emergency departments has demonstrated the potential to reduce alcohol consumption, alcohol-related injury and criminal activity.[22] As well, there is an association between alcohol consumption and trauma.[23] As such, Canadian hospitals have implemented SBIR to help motivate behaviour change by "taking advantage of a teachable moment generated by the injury".[23(p.19)] Similarly, within primary care settings BIs have been implemented for hazardous and harmful drinkers.[24] SBIR has also been implemented within college and university settings.[25] In these settings different health professional may be tasked with conducting the intervention including nurses, doctors, etc.[18]

Public health and SBIR

Although SBIR is predominantly implemented within clinical settings public health plays a significant role in supporting its implementation and adoption. As outlined in the proposed National Alcohol Strategy, alcohol is a public health issue and SBIR is one component of a larger approach to reduce alcohol use and prevent associated harms and risks in Canada.[10] Through membership on relevant public health alcohol policy committees and content expertise in alcohol policy, PHO remains well connected with emerging alcohol policy issues. As such, opportunities exist for public health units (PHU) within Ontario to implement SBIR akin to the provision of routine clinical services (e.g. sexual health clinics and immunizations) when and where appropriate. As the Ontario Public Health Standards require PHUs to develop policies and programs targeted towards alcohol use[26] implementation of SBIR is one way they can work to meet this requirement. SBIR is also a form of secondary and tertiary prevention as the implementation of early intervention is seen as a method to reduce alcohol consumption levels of high-risk drinkers thereby possibly preventing future alcohol-related harms.[1] As PHUs are mandated to direct their efforts towards preventing injury and substance misuse, implementation of SBIR is one way to address this.[26]

Challenges and limitations of SBIR

Although SBIR has been recommended on provincial and national levels there are still challenges and limitations with its implementation. For one, the absence of an appropriate fee code may contribute to a

lack of adoption by physicians within primary care settings.[27] Others challenges include the additional time, documentation and resources (e.g. financial and personnel) needed to incorporate SBIR into any treatment process.[28] In addition, the uncertainity of the role of public health in relation to SBIR appears to have slowed uptake in Ontario. As well, evidence evaluating the effectiveness of SBIR has not only been inconsistent, it is predominantly published outside of Canada making the case for the results needing to be applied and evaluated within the Canadian context.

Conclusion

The recommendations made on a provincial[12,13] and national[10] level supporting SBIR have set the foundation for it to be further implemented in Ontario. The variety of screening tools, BIs and referral options discussed in this Focus On provide a basis for SBIR to be adapted for use in multiple settings. Although the relationship between public health and SBIR is still developing, public health can play a strong role supporting its adoption and implementation within the primary health care setting.
As well, efforts can be directed towards further increasing the role of public health in regard to implementation and delivery of SBIR, and toward reducing the challenges and limitations associated with its adoption. Public health professionsals, hospital administrators and policy makers can use the information presented in this Focus On to determine the capacity in which SBIR can be implemented within specific settings.

Resources

- The College of Family Physicians of Canada. Alcohol Screening, Brief Intervention & Referral: A Clinical Guide
- The Public Health Ontario/Cancer Care Ontario Prevention Working Group
- Alcohol Locally Driven Collaborative Project
- Evidence Brief: Alcohol screening, brief intervention, and referral (SBIR) in health settings

References

1. Babor T, Caetano R, Casswell S, Edwards G, Giesbrecht N, Graham K, et al. Alcohol: no ordinary commodity. 2nd ed. Oxford: Oxford University Press; 2010.

2. Babor TF, McRee BG, Kassebaum PA, Grimaldi PL, Ahmed K, Bray J. Screening, Brief Intervention, and Referral to Treatment (SBIRT): toward a public health approach to the management of substance abuse. Substance Abuse. 2007;28(3):7-30.

3. Canadian Centre on Substance Abuse. Canada's low-risk alcohol drinking guidelines [Internet]. Ottawa ON: Canadian Centre on Substance Abuse; 2013 [cited 2016 Jul 12]. Available from: http://www.ccsa.ca/Resource%20Library/2012-Canada-Low-Risk-Alcohol-Drinking-Guidelines-Brochure-en.pdf

4. Canadian Centre on Substance Abuse. Alcohol [Internet]. Ottawa, ON: Canadian Centre on Substance Abuse; 2014 [cited 2016 Jul 7]. Available from: http://www.ccsa.ca/Resource%20Library/CCSA-Canadian-Drug-Summary-Alcohol-2014-en.pdf

5. World Health Organization. Management of substance abuse: alcohol [Internet]. Geneva: World Health Organization [cited 2016 Jul 7]. Available from: http://www.who.int/entity/substance_abuse/facts/alcohol/en/index.html

6. Butt P, Beirness D, Stockwell T, Gliksman L, Paradis C. Alcohol and health in Canada: a summary of evidence and guidelines for low-risk drinking [Internet]. Ottawa, ON: Canadian Centre on Substance Abuse; 2011 [cited 2016 Jul 11]. Available from: http://www.ccsa.ca/Resource%20Library/2011-Summary-of-Evidence-and-Guidelines-for-Low-Risk%20Drinking-en.pdf

7. Health Canada. Canadian Alcohol and Drug Use Monitoring Survey: summary of results for 2011 [Internet]. Ottawa, ON: Government of Canada; [2012] [cited 2016 Jul 7]. Available from: http://hc-sc.gc.ca/hc-ps/drugs-drogues/stat/_2011/summary-sommaire-eng.php#a9

8. Rehm J, Giesbrecht N, Patra J, Roerecke M. Estimating chronic disease deaths and hospitalizations due to alcohol use in Canada in 2002: implications for policy and prevention strategies. Preventing Chronic Disease. 2006;3:A121. Available from: http://www.cdc.gov/pcd/issues/2006/oct/05_0009.htm

9. Rehm J, Gnam W, Popova S, Baliunas D, Brochu S, Fischer B, et al. The costs of alcohol, illegal drugs, and tobacco in Canada, 2002. J Stud Alcohol Drugs. 2007;68(6):886-95.

10. National Alcohol Strategy Working Group. Reducing alcohol-related harm in Canada: toward a culture of moderation [Internet]. Ottawa, ON: Canadian Centre on Substance Abuse; 2007 [cited 2016 Jul 15]. Available from: http://www.ccsa.ca/Resource%20Library/ccsa-023876-2007.pdf

11. The College of Family Physicians of Canada. Alcohol screening, brief intervention & referral: helping patients reduce alcohol-related risks [Internet]. Mississauga, ON: The College of Family Physicians of Canada; [2012] [cited 2016 Jul 12]. Available from: http://www.sbir-diba.ca/

12. Registered Nurses' Association of Ontario. Clinical best practice guidelines: engaging clients who use substances [Internet]. Toronto, ON: Registered Nurses's Association of Ontario; 2015 [cited 2016 Jul 28 2016]. Available from: http://rnao.ca/sites/rnao-ca/files/Engaging_Clients_Who_Use_Substances_13_WEB.pdf

13. Ontario Medical Association. Mitigating harm associated with alcohol use [Internet]. Toronto, ON: Ontario Medical Association; 2013 [cited 2016 Jul 19]. Available from: https://www.oma.org/Resources/Documents/AlcoholPolicy04052013.PDF

14. Public Health Ontario,Cancer Care Ontario. Taking action to prevent chronic disease: recommendations for a healthier Ontario. Toronto, ON: Queen's Printer for Ontario; 2012 [cited 2016 Aug 22]. Available from: http://www.publichealthontario.ca/en/eRepository/takingactionreport%20Mar%2015-12.pdf

15. Alcohol Locally Drivern Collaborative Project (LDCP). Addressing alcohol consumption and alcohol-related harms at the local level: a resources for public health professionals in Ontario [Internet]. Toronto ON: Locally Driven Collaborative Projects; 2014 [cited 2016 Jul 20]. Available from: http://www.publichealthontario.ca/en/ServicesAndTools/Documents/LDCP/Alcohol_FinalReport_October2014.pdf

16. Jaeger V (Council of Ontario Medical Officers of Health). Re: Ontario Medical Association policy paper mitigating harm associated with alcohol use [Internet]. Toronto, ON: Association of Local Public Health Agencies; 2013 [cited 2016 Aug 25]. Available from: http://c.ymcdn.com/sites/www.alphaweb.org/resource/collection/7DCF40E5-9508-4227-8FC4-31F29C8717D7/COMOH_Letter_OMA_LRADG_171013.pdf

17. Rehm J, Gnam HW, Popova S, Patra J, Sarnocinska-Hart A. Avoidable costs of alcohol abuse in Canada 2002: highlights [Internet]. Toronto, ON: Centre for Addiction and Mental Health; 2008 [cited 2016 Aug 12]. Available from: http://s3.amazonaws.com/academia.edu.documents/39185613/0912f50b9440fa6bef000000.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1470949360&Signature=BKUX6qm20Jii5ruCMSfGUjq%2FPOY%3D&response-content-disposition=inline%3B%20filename%3DAvoidable_Cost_of_Alcohol_Abuse_in_Canad.pdf

18. Moyer A, Finney JW. Brief interventions for alcohol misuse. CMAJ. 2015;187:502-6. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1679650/

19. Ogborne AC. Identifying and treating patients with alcohol-related problems. CMAJ. 2000;162:1705-8. Available from: http://www.cmaj.ca/content/162/12/1705.long

20. Dhalla S, Kopec JA. The CAGE questionnaire for alcohol misuse: a review of reliability and validity studies. Clin Invest Med. 2007;30(1):33-41.

21. Reinert DF, Allen JP. The Alcohol Use Disorders Identification Test (AUDIT): a review of recent research. Alcohol Clin Exp Res. 2002;26(2):272-9.

22. Davey CJ, Landy MS, Pecora A, Quintero D, McShane KE. A realist review of brief interventions for alcohol misuse delivered in emergency departments. Systems Review. 2015;4:45. Available from: http://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-015-0024-4

23. St. Michael's Hospital. St. Michael's Hospital trauma services annual report 2008 [Internet]. Toronto, ON: St. Michael's Hospital; 2008 [cited 2016 Aug 15]. Available from: http://www.stmichaelshospital.com/pdf/programs/trauma/trauma-annual-report-2008.pdf

24. O'Donnell A, Anderson P, Newbury-Birch D, Schulte B, Schmidt C, Reimer J, et al. The impact of brief alcohol interventions in primary healthcare: a systematic review of reviews. Alcohol Alcohol. 2014;49:66-78. Available from: http://alcalc.oxfordjournals.org/content/49/1/66.long

25. Fleming MF, Balousek SL, Grossberg PM, Mundt MP, Brown D, Wiegel JR, et al. Brief physician advice for heavy drinking college students: a randomized controlled trial in college health clinics. J Stud Alcohol Drugs. 2010;71:23-31. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2815058/

26. Ontario. Ministry of Health and Long-Term Care. Ontario public health standards 2008,Revised May 2016 [Internet]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2016 Jul 28]. Available from: http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/ophs_2008.pdf

27. Zur RM, Zaric GS. A microsimulation cost-utility analysis of alcohol screening and brief intervention to reduce heavy alcohol consumption in Canada. Addiction. 2016;111:817-31.

28. Salvalaggio G. SBIRT in primary care settings. Presented at: Fundameentals Course CSAM 2014. . 2014 Oct 18-19 [cited Aug 15 2016]. Available from: http://www.csam-smca.org/wp-content/uploads/2014/11/G-Salvalaggio-SBIRT-in-Primary-Care-settings.pdf

Authors

Safia Mohamed, Practicum Student, Health Promotion Capacity Building, Public Health Ontario
Shawn Hakimi, Product Development Advisor, Health Promotion Capacity Building, Public Health Ontario

Reviewer

Jason LeMar, Health Promotion Consultant, Alcohol Policy, Health Promotion Capacity Building, Public Health Ontario

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario), Mohamed S, Hakimi S. Focus on: Alcohol screening, brief intervention and referral. Toronto, ON: Queen's Printer for Ontario; 2017

ISBN 978-1-4606-8687-4

Disclaimer

Health Promotion Capacity Building at Public Health Ontario

Health Promotion Capacity Building works with Ontario's public health system, community health care intermediaries and partner ministries. Available in both official languages, our services and resources support the development of public health core competencies. Visit us at: publichealthontairo.ca/hpcb

Public Health Ontario

Public Health Ontario is a Crown corporation dedicated to protecting and promoting the health of all Ontarians and reducing inequities in health. Public Health Ontario links public health practitioners, front-line health workers and researchers to the best scientific intelligence and knowledge from around the world.

Public Health Ontario provides expert scientific and technical support to government, local public health units and health care providers relating to the following:

- communicable and infectious diseases
- infection prevention and control
- environmental and occupational health
- emergency preparedness
- health promotion, chronic disease and injury prevention
- public health laboratory services

Public Health Ontario's work also includes surveillance, epidemiology, research, professional development and knowledge services. For more information about PHO, visit www.publichealthontario.ca.

Public Health Ontario acknowledges the financial support of the Ontario Government.

Ontario
Agency for Health Protection and Promotion
Agence de protection et de promotion de la santé