

# Reflections on How a University Binge Drinking Prevention Initiative Supports Alcohol Screening, Brief Intervention, and Referral for Student Alcohol Use

Danielle Robertson-Boersma\*, Peter Butt, and Colleen Anne Dell

*University of Saskatchewan, Saskatoon, SK, Canada*

What's Your Cap: Know When to Put a Lid on Drinking (WYC†) is a student-led and research-based binge-drinking prevention campaign at the University of Saskatchewan, Canada. It was formed to encourage a culture of alcohol moderation on the university campus through peer-to-peer engagement that emphasizes promotional items and activities of interest to students. Since its development in 2011, WYC has been guided by a logic model that promotes: 1) perceived and actual student drinking norms on campus; 2) benefits of a student-led initiative; and 3) merits of working with community partners. With the release of a clinical guide in Canada for alcohol screening, brief intervention, and referral (SBIR) in 2013, WYC was prompted to consider whether it is a form of population-based SBIR. SBIR is commonly undertaken in the substance use field by health care practitioners, and this paper shares the potential for a student-based SBIR modification on a university campus.

## INTRODUCTION

Student life on a university campus in Canada and the United States is commonly associated with alcohol consumption [1]. Studies have shown that between 80 percent and 90 percent of university students consumed alcohol at least once in the past year [2-3]. Binge drinking has become a significant health concern for university campuses, defined as four or more drinks for women and five or more drinks for men on a single occasion [4]. The 2012 National College Health Assessment with 34,039 respondents from Canadian universities found that 36 percent of students drank five or more drinks in a sitting at least once within the last 2 weeks, indicating that a core number of students are engaging in high-risk binge drinking. Forty percent of students reported that they did something they later regretted when drinking alcohol in the last 12 months, 30 percent forgot where they were or what they did, 20 percent physically injured themselves,

and 20 percent had unprotected sex [5]. Current data and initiatives from the United States similarly indicate that binge drinking on the university campus is an ongoing concern [6]. Media in both countries record the overwhelming social, economic, and personal costs of university students' over-consumption of alcohol, including death [7-10]. There is a need for increased awareness and behavior change among university students regarding the harms of over-consuming alcohol.

What's Your Cap: Know When to Put a Lid on Drinking (WYC), a student-led binge-drinking prevention campaign, originated in January 2011 at the University of Saskatchewan (U of S). Students in Dr. Colleen Anne Dell's addictions class were assigned the task of designing an addictions-specific prevention initiative relevant to university students. This included identifying the prevalence of use of the substance on campus, how it impacted individuals and the campus environment, and if

\*To whom all correspondence should be addressed: Danielle Robertson-Boersma, University of Saskatchewan, 1019 – 9 Campus Dr., Saskatoon SK, S7N 5A5; Tele: 306-221-8194; Email: dani.robertson@usask.ca.

†Abbreviations: LRDG, Low Risk Drinking Guidelines; SBIR, screening, brief intervention, referral; SBIRT, screening, brief intervention, referral to treatment; U of S, University of Saskatchewan; WYC, What's Your Cap? Know When to Put a Lid on Drinking.

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**Figure 1.** In 2012, the U of S Student Binge Drinking Prevention Campaign rebranded itself to What's Your Cap? Know When to Put a Lid on Drinking. During the rebranding, a logo was created in order for those on and off campus to recognize the campaign quickly and efficiently through its name and the image of colorful bottle caps.

there had been any previous attempts to address it. The majority of the groups identified alcohol, specifically binge drinking, as a concern for the campus community.

Impressed by the outcome of the class assignment, Dr. Dell supported four undergraduate students through her provincially funded position as a Research Chair in Substance Abuse to spend the summer creating a binge-drinking prevention initiative specific to the campus. An addictions physician at the university, Dr. Peter Butt, was recruited for guidance. The students developed both an ethics application and a project proposal, which specifically identified: the causes and consequences of binge drinking on university campuses, the theoretical framework the campaign would follow, an analysis of response gaps on the U of S campus and in the province, a budget, and a 4-year work plan. From there, an advisory committee was established, which included members from the Saskatchewan Ministry of Health, the Canadian Centre on Substance Abuse, and the Saskatchewan Team for Research and Evaluation of Addictions Treatment and Mental Health Services. Both the proposal and ethics application were finalized by the end of the summer and the students' evidence-based and theoretically driven prevention initiative officially began in the autumn.

Published in full elsewhere, WYC was developed with a commitment to drawing upon the latest empirical and theoretical evidence on prevention campaigns, most specifically Butterfoss and Kegler's [11-13] Community Coalition Action Theory [14] and the evaluated U.S. campus peer-to-peer education approaches, including *The Other Hangover* and *Less Than U Think* [6,15]. In addition, WYC applied a theory-driven approach to operationalizing its campaign goals, drawing upon: 1) environmental management [16]; 2) theory of planned behavior [17]; and

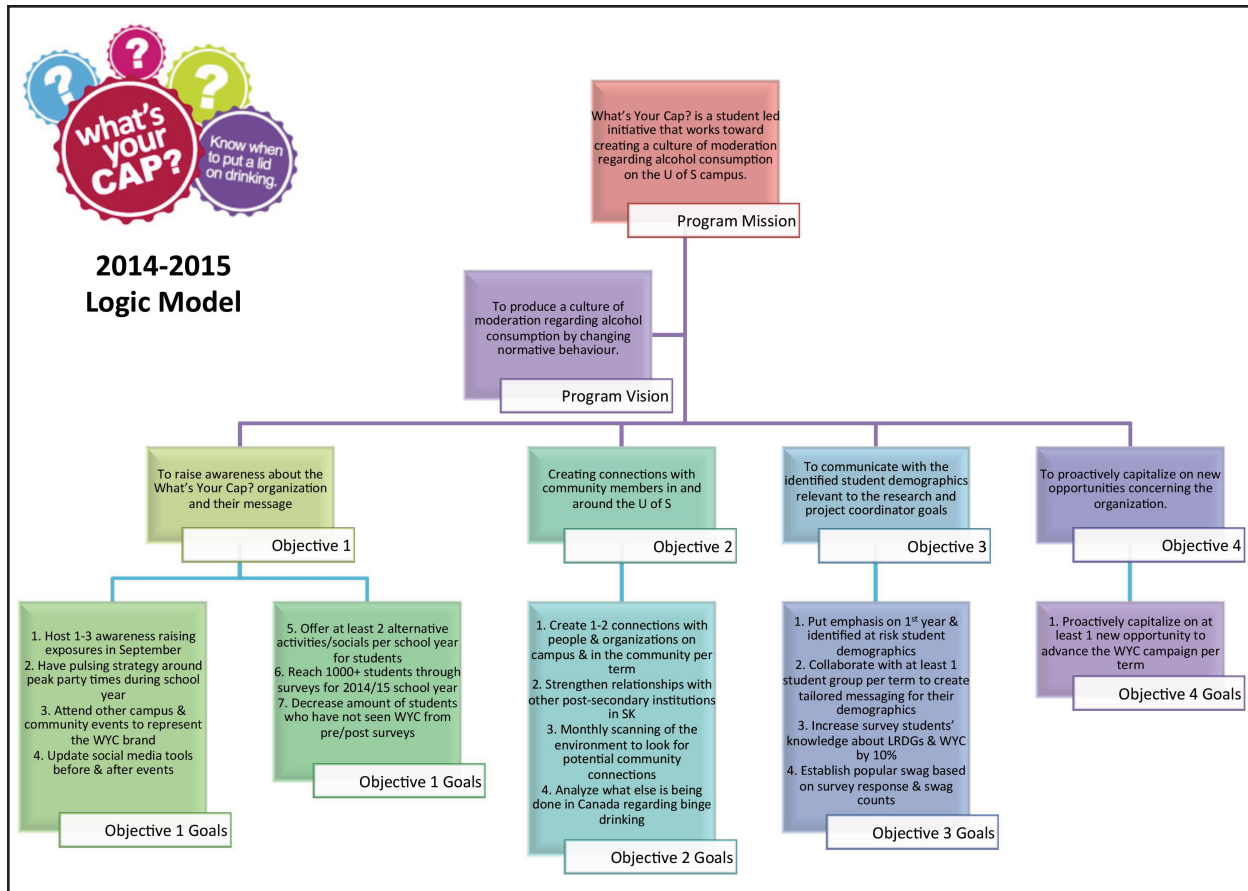
3) gain framed messaging [18]. It should be noted that, generally, the rate of binge drinking on university campuses in Canada and the United States is comparable, due to their similar social and cultural contexts and despite their varied legal drinking ages (i.e., 21 in the United States and 19 in Saskatchewan) [19-21].

In its initial year, WYC undertook a rapid assessment and environmental scan of the U of S campus, which directed the initiative toward a focus on alcohol moderation and safer drinking practices. Endorsement and support from the university administrative body, colleges, and advisory committee were also secured. The initiative's advisory committee expanded to include: U of S Student and Enrolment Services Division, U of S Student Health Services, Saskatchewan Liquor and Gaming Authority, St. Thomas More College, and the Saskatchewan Prevention Institute.

At this point, the initiative transformed into a campaign. It was officially titled *What's Your Cap: Know When to Put a Lid on Drinking* and a logo was designed (Figure 1). WYC's formal rollout was at the 2012 U of S student orientation. This annual event introduces first-year and returning students to the social and academic culture of their university campus. Through the use of researched promotional items and activities to initiate peer-to-peer engagement, WYC campaign coordinators and student volunteers began promoting alcohol moderation to their fellow university students. It is estimated that the campaign's coverage is quite significant, with WYC present at Welcome Week, on campus digital advertisement screens, in Student Health newsletters and directed student emails, and at University Centre and residency events.

With the transformation of the initiative into a campaign, a logic model [22] was developed to define the campaign's goals and for evaluation purposes (Figure 2). The logic model includes a mission, vision, objectives, and goals. The mission identifies WYC's overarching aim: "What's Your Cap? is a student led initiative that works toward creating a culture of moderation regarding alcohol consumption on the U of S campus" [22]. The vision addresses what the mission intends to achieve: "To produce a culture of moderation regarding alcohol consumption by changing normative behaviour" [22]. Four objectives and corresponding goals support the mission and vision, with WYC reviewing these on an annual basis. WYC's current objectives are to: 1) raise awareness about the WYC organization and its message; 2) create connections with community members in and around the U of S; 3) communicate with the student demographic relevant to WYC's goals; and 4) proactively capitalize on new opportunities. To put the logic model into practice, WYC appoints student employees and volunteers.

WYC has two main employment positions, a Project Coordinator and a Market Research Coordinator. The Project Coordinator creates and maintains community partnerships. This is done through presentations and information sessions, sharing promotional items and print materials, and organizing volunteers. This individual also handles the ma-



**Figure 2.** Members of WYC decided it was necessary to create a visual that easily identifies the program mission, vision, objectives, and yearly goals of the campaign. The WYC Logic Model shares all of these points with those interested in what the overall drive of the campaign is, while also identifying specific goals for each year.

majority of the administrative work, including the campaign budget, office hours, and email. The Market Research Coordinator maintains the brand of the campaign through social media, while staying up-to-date on and contributing to student binge-drinking research. This individual is in charge of the campaign's evaluation through the administration of an online biannual survey. A Graduate Student Advisor also works alongside the Project Coordinator and Market Research Coordinator. The Graduate Student Advisor has previous undergraduate experience with WYC and supports the above two positions in a mentorship capacity, including giving advice on presentations, meeting with administrative members, and writing grants. Together, these three positions make up the primary working membership of WYC. This administrative complement to the campaign provides a solid working base for the initiative to remain student-run, while at the same time permitting students to receive guidance and mentorship from its advisory committee. WYC does not yet have evaluation results to report on, but awareness of the campaign on campus via the student body is marked by its widespread presence as well as by financial support provided through campus administration and continued through the Research Chair in Substance Abuse.

WYC has 16 goals (Figure 2) intended to turn its four objectives into practice. There is an overarching theme

binding the goals within each objective, and three are focused on in this paper. The seven goals for objective one — to raise awareness about the WYC organization and its message (moderation) — acknowledge perceived and actual student drinking norms on campus, including overconsumption. The literature indicates that Canadian and American university students overestimate their peers' drinking norms [23-26]. The four goals for objective two — to create connections with community members in and around the U of S — capitalize on the unique benefits of a student-led initiative. This is firmly embedded in WYC's adoption of Community Coalition Action Theory. The four goals for objective three — to communicate with the student demographic relevant to WYC's goals — recognize the merits of working with community partners. This includes collaborating with student and other such groups. And an example of the fourth objective — proactively capitalize on new opportunities — is the publication of this paper specific to SBIR. WYC previously has shared its theory and evidence-based formation in both peer reviewed [14] and grey literature forms [27].

With the release of a clinical guide in Canada for alcohol screening, brief intervention, and referral (SBIR) in 2013, WYC was prompted to consider whether it is a form of population-based SBIR. SBIR is commonly undertaken

in the substance use field by health care practitioners, and this paper shares the potential for a student-based SBIR modification to effectively reduce risky alcohol drinking on a university campus.

## SCREENING AND ASSESSMENT, BRIEF INTERVENTION AND REFERRAL (SBIR)

In 2013, the College of Family Physicians of Canada and the Canadian Centre on Substance Abuse released a web-based clinical guide for physicians titled *Alcohol Screening, Brief Intervention and Referral: Helping Patients Reduce Alcohol-Related Risks and Harms*. It identifies three steps for screening and assessment, brief intervention and referral (SBIR):

1. **Screen for at-risk drinking:** Drawing on Canada's Low Risk Drinking Guidelines (LRDG), screen individuals for their alcohol use, including the number of drinks they consume per week and on a typical drinking day and whether they are over the LRDG.

2. **Assess level of at-risk drinking:** Assess individuals as being at an elevated risk if their consumption exceeds the LRDG or as abusing alcohol (e.g., risk of injury, relationship issues) or having an alcohol dependence (e.g., increased tolerance, withdrawal symptoms) according to the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* [28].

3. **Brief intervention and possibly referral:** A brief intervention involves advising the individual of their at-risk status, clearly stating LRDG recommendations, suggesting cutting back to low-risk drinking, and assessing the individual's state of change [29]. Assistance is provided to reduce alcohol use if risk is elevated, with referral for those diagnosed as dependent.

The Canadian SBIR clinical guide is aligned with the National Institute on Alcohol Abuse and Alcoholism guide *Helping Patients Who Drink Too Much: A Clinicians' Guide*, as well as the British Columbia Ministry of Health's Problem Drinking Guideline [30-31]. However, there is no universally accepted approach or terminology related to SBIR. For example, the United States focuses on screening, brief intervention, and referral to treatment (SBIRT), while the Canadian guide adopts the European terminology of screening, brief intervention, and referral (SBIR), indicating that referral is not always to treatment. The implementation of SBIR is also varied; the Yale School of Medicine Emergency Department, for example, adopted the practice of SBIR in the form of a Brief Negotiated Interview in which the attending health care practitioner raises the subject of problematic alcohol use with the patient, provides feedback on the patients' drinking patterns in relation to national norms, assesses and enhances the patient's motivation to change their drinking, offers advice, and negotiates a goal with the patient [32].

SBIR traditionally has been identified as a physician's responsibility in primary care and emergency departments, although studies are emerging about the benefits of in-

volvement and support by others from across the health care delivery system (e.g., nurses) [33-35]. The Canadian guide is not physician-centric and, in fact, suggests a team-based approach to SBIR. Examples provided in the guide include having a nurse screen and assess the patients and having a counselor join a patient consultation when alcohol-related health risks are present [36]. In the United States, there has been some adoption of this broader approach to SBIR on university and college campuses [37-39], but such efforts are generally not student delivered [37,40]. For example, a recent randomized controlled trial of the BASICS program (Brief Alcohol Screening and Intervention for College Students) in the United States relayed an association with less drinking and fewer alcohol problems for mandated college students with heavy drinking and volunteer undergraduates; however, it requires intensive training with personnel already proficient in motivational interviewing [41]. Studies have also shown SBIR to be more effective when personalized, face-to-face (i.e., not web-based), and focused on moderation strategies, identifying risky situations, and setting goals [42-45]. Overall, "[t]he best evidence for efficacy of SBI is that it can lead to decreased consumption in primary care patients with non-dependent unhealthy alcohol use. But further research is needed ..." [46]. This includes specifics for the university campus. WYC is not aware of SBIR's application on any Canadian campuses, other than Student Health Services at the University of British Columbia during the pilot for the Canadian SBIR clinical guide.

With the release of the clinical guide for alcohol screening, brief intervention, and referral (SBIR) in 2013 in Canada, WYC was prompted to consider whether SBIR could be expanded beyond health care professionals to include peers. This was initially suggested by Dr. Butt, drawing on his leadership in the development of Canada's SBIR clinical guide. Reflecting on WYC's campus involvement in three of its four objective areas and the theme binding the goals within each, it is proposed that a form of SBIR takes place during peer-to-peer engagements over activities of interest to students and while issuing promotional items. This potentially simplified, student-led form of SBIR involves *screening* individuals for their alcohol use; *assessing* student's awareness of the Low Risk Drinking Guidelines (LRDG) and whether they are placed at elevated risk; and offering a *brief intervention* during which ways to cut down and minimize risk are suggested for students exceeding the LRDG. The students are made aware of other health resources if referral is required. WYC illustrations are offered in support of this proposal within each of the three WYC objectives.

## IMPLEMENTING WYC'S OBJECTIVES AND THEIR LINKAGE WITH SBIR

### *Objective One: Acknowledgement of Perceived and Actual Student Drinking Norms*

The key theme of WYC's first objective — to raise awareness about the WYC organization and its message



(moderation) — is acknowledgment of perceived and actual student drinking norms, including binge drinking, on the U of S campus. University students' actual and perceived drinking norms are a well-established concern in the academic literature [47-48] as well as the media [49], with a growing concern specific to female students [50]. As the LRDG is sex-specific based on biological make-up, addressing sex differences is inherent in all of WYC's activities. These range from sharing the different LRDG maximum consumption limits for females and males to sex-specific measures to cut down on drinking (e.g., the recommended level of alcohol intake for females during pregnancy is zero). Canada's expert development of the LRDG support WYC's message of moderation in alcohol consumption; "[t]he Guidelines recommend no more than two drinks a day, 10 per week for women, and three drinks a day, 15 per week for men, with an extra drink allowed on special occasions" [51].

### Screening and Assessment

As has been identified, the first two steps of SBIR are screening and assessment. WYC is engaging in a type of screening for at-risk drinking and assessing the level of at-risk drinking with students through activities that address drinking norms on campus. For example, WYC opens up conversations with students about their alcohol use, including their "cap," through the use of white boards to share what peers are drinking and to address students' perceived and actual drinking norms. WYC representatives ask students to identify their drink limit for a typical night, and students record this number on a dry-erase white board. WYC then takes a picture and shares it with its Facebook community. Students identify their limits between 0 and 10 plus, with some writing, for example, that it takes them "3 gin and tonics" to reach their cap. Some students pose for the picture with their peers, indicating the range in drinking habits between friends. This activity relays to students that many of their peers have low risk drinking "caps," with some choosing 0. Sharing among students serves to break down the common misperception of the student norm of over-consuming alcohol and in its place introduces students to lower and more realistic moderate numbers from their peers.

At the same time, WYC promotes the LRDG to give students a baseline from which to assess their drinking and to prompt reflection on excessive use. This is done through informal conversations about weekly and daily alcohol consumption limits, often when handing out WYC promotional items, such as sunglasses, drink cozies, sticky notes, and bottle openers. Conversations also take place when students interact with WYC's volumetric drink size kit. A recent U.S. study found that the majority of medical residents "did not know the basic facts about standard drink equivalents" [52]; this suggests that other groups such as WYC are essential for providing such information. In addition, WYC shares its biannual campus survey findings about student alcohol consumption in infographic

formats at on-campus events, such as residence gatherings, to facilitate localized student conversation about the LRDG.

### Brief Intervention

In partnership with Student Health, WYC engaged in a brief intervention type activity to address student drinking norms through its Party Pledge program, paying specific attention to students who exceed the LRDG. Presented at a major homecoming sporting event on campus this past year, WYC engaged with U of S students to "pledge" to one of four activities that can reduce risky alcohol consumption. They were: 1) I pledge to watch out for my friends who are drinking; 2) I pledge to always use a designated driver when drinking; 3) I pledge to put studying before drinking; and 4) I pledge to drink within Canada's LRDG. Students signed a paper pledge(s) and were given a WYC promotional bracelet to signify their agreement.

WYC engages in other unique methods for providing information in the form of a brief on-campus intervention. For example, it is common for students to report drinking excessively to cope with stress or mitigate social anxiety [5]. WYC partners with the St. John Ambulance Therapy Dog program to send a "pawsitive" message about a healthy, alternative form of stress relief. During the weekly therapy dog events, WYC student representatives issue peers with promotional door hangers in a conversational style. On one side the door hanger states: "Gone to the dogs to reduce my stress. Petting a dog can increase levels of the stress-reducing hormone oxytocin and decrease production of the stress hormone cortisol." On the flip side is the LRDG with the message: "Alcohol is a depressant and increases feelings of stress. If you choose to drink, follow Canada's low-risk drinking guidelines." These events are often attended in peer groups by the students. Informal discussions, over the calming effects of petting a dog, center on ways to cut down on drinking and on alternative means of dealing with stress (e.g., pet a dog).

### Objective Two: Capitalize on the Benefits of WYC's Student-Led Initiative

The key theme of WYC's second objective — to create connections with community members in and around the U of S — is capitalization on the benefits of its student-led initiative. This is a unique contribution to the empirical, practice, and theory-based literature because the majority of college-based prevention initiatives are not student-governed [53]. Those that are student-led occupy a unique presence on campuses as they are able to share and relate to the students they interact with in a way that other prevention campaigns with a top-down structure are not able to. The U.S. Less Than U Think and The Other Hangover campaigns are examples of student-led leadership with notable impact [54]. The initiatives, however, do not incorporate SBIR. Prompted reflection on one's

drinking by a peer alongside the provision of alternative coping mechanisms can be a much less direct and more inviting approach to a brief intervention than typical institution-led processes.

### Screening and Assessment

WYC capitalizes on its student status to access various opportunities on campus to share its unique promotional items and LRDG, and in turn prompt screening and assessment. As one example, WYC's #itspottytime toilet bowl venture challenged students to a scavenger hunt on the U of S campus to locate seven colorful toilets in unconventional places (e.g., in a dorm hallway). Each toilet had a message on it and asked students, "Where do you want to be at the end of the night?" This prompted casual in-person and social media conversations with WYC representatives about excessive drinking and what students really wanted when it came to a night out involving alcohol. This served as a prime opportunity to share the LRDG and assess whether students exceeded them. Other examples of WYC's engagement in student-directed conversations at campus events include offering non-alcoholic green mocktails in the University Centre on St. Patrick's Day, stress balls in the shape of alcohol beverage containers at campus residence parties, and bottle openers with the WYC logo during Stress Less final exam events.

### Brief Intervention

As a form of brief intervention, WYC put on a new event this past January called Thinkin' About My Drinkin'. Five students pledged to abstain from drinking alcohol during the month of January and document their experiences from a social, economic, health, and academic perspective. These reflections were uploaded to the WYC Facebook page each Wednesday and Friday of the month. The participating students were able to see changes in their overall lifestyles and some decided to continue drinking less after the month was up. This event served as a type of brief intervention that students could follow "live." In student conversations that ensued, including a student get-together at the end of the month, the five pledges shared advice with their peers about the environment in which they plan to drink in the future that will help keep them harm-free, such as keeping people around them who are supportive and responsible.

### *Objective Three: Recognition of the Merits of Working with Community Partners*

The key theme of WYC's third objective — communicate with the student demographic relevant to WYC's goals — is recognition of the merits of working with community partners. Since the creation of WYC, an important aspect of the campaign has been the work it does with community members on the university campus, at the municipal and provincial levels, and with national partners. Partnerships are foundational to its success [14,27]. Reflection on this theme led WYC to consider how its on-

campus relationship with Student Health and other partners is an adaptation of brief intervention and referral in SBIR.

### Brief Intervention and Referral

WYC has a formalized partnership with Student Services on the U of S campus, and specifically with Student Health, as a result of its relationship with the Student Enrollment & Services Division (SESD). Out of this partnership, Student Health has promoted and offered U of S students a drinking assessment tool on its website called eCHECK UP TO GO [55]. This tool was created by the University of San Diego and is subscribed to annually by the U of S. The tool is a student-friendly way to bring perspective to individual drinking habits. The online assessment allows students to anonymously answer questions related to their alcohol consumption and to compare their responses to other students on campus. It also shares how a student's life may be impacted by the amount of alcohol they consume. For example, eCHECK UP TO GO will calculate the number of hours a student would need to expend in exercise to equal the calories in the amount of alcohol they consumed the night prior or the average amount of money a student spends on drinking over time and how far the money could go toward other activities important to students.

WYC's formalized working partnership with Student Health on the U of S campus provides the opportunity for further assessment as well as personal communication and possible referral for specialized care. Referrals via the WYC student group link seamlessly with the on-campus wellness organization that employs helping professionals in the substance abuse field (e.g., physicians, psychologists). WYC and its partners, including Student Health, also are considering sharing information on the Alcohol Use Disorders Identification Test (AUDIT) to identify students' hazardous and harmful alcohol consumption. Originally developed by the World Health Organization over a decade ago [56], the AUDIT has since been applied to and evaluated successfully with college students [57-58]. The process for introducing the AUDIT in a student-driven way by WYC is under consideration. WYC has likewise been guided by the work of the Centre for Addictions Research of BC, which developed several screening tools for use in a variety of campus settings [59].

### CONCLUSION

SBIR for alcohol consumption is an evidence-based three-step intervention to screen and assess, provide brief intervention and, as needed, refer for services including treatment. It has existed for some time, but many questions remain. WYC's campus involvement, coupled with the three key themes reflecting WYC's campaign goals, prompted WYC to consider whether it has applied a modified SBIR process to engage with its peer cohort on the U of S campus. This student-led community initiative asks

students about alcohol use, advises on the national LRDG and campus drinking norms, provides information on ways to cut down and minimize risk, and, when necessary, refers for assistance. WYC is designed to prompt reflection in a friendly, peer-guided, and peer-supported interaction. This supports the research emerging on SBIR in a new way, showing that SBIR is being undertaken by a growing range of health care practitioners. The paper shares the potential for a student-based SBIR modification on a university campus.

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