

## **BARRIERS AND ENABLERS OF SCREENING AND BRIEF INTERVENTION PROGRAM IMPLEMENTATION FOR PATIENTS WITH ALCOHOL-RELATED INJURIES IN A SOUTH AFRICAN TRAUMA CENTRE: VIEWS OF HEALTH CARE PROVIDERS**

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### **ABSTRACT**

Despite high levels of alcohol-related injury in South Africa, there are no screening and brief intervention (SBI) programs in any hospital trauma centres. We conducted semi-structured interviews with 16 trauma centre staff (8 doctors, 7 nurses, 1 social worker) focused on barriers and enablers to the future implementation of a SBI program. Data were analysed using thematic analysis. Perceived barriers included time constraints and injury treatment as priority, with the central barrier being inadequate funding. Enablers included the support of senior staff, and training. These findings can be used to support the successful implementation of a SBI program in South African trauma centres, with the purpose of reducing high rates of risky alcohol use and related injury recidivism.

**Keywords:** Screening and Brief Interventions, Alcohol Drinking, Trauma Centres, Medical Staff, South Africa

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### **INTRODUCTION**

Bans on alcohol sales in South Africa as part of COVID-19 restrictions have brought renewed attention to high rates of alcohol consumption among South Africans, and the associated burden on hospital emergency departments (EDs; Matzopoulos et

al., 2020). South Africa has the fifth highest per capita consumption of alcohol in the world (WHO, 2018), and 59% of South African drinkers are heavy episodic (“binge”) drinkers (WHO, 2018). There is strong international evidence for the association between alcohol consumption and injuries (Cherpitel et al., 2018; Secombe & Stewart,

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2018; Snoswell et al., 2019). In South Africa, the first alcohol sales ban introduced as part of COVID-19 restrictions at the end of March 2020 confirmed this. When the ban was implemented, there was an immediate reduction in trauma admissions (by an estimated 50% at five Western Cape hospitals (Hyman, 2020), and, when the ban was lifted, an immediate surge in trauma cases (Hyman, 2020; Navsaria et al., 2020). This points to urgent need to implement evidence-based strategies to reduce alcohol-related injuries in South Africa.

Screening and brief intervention (SBI) programs have been demonstrated internationally to be effective in reducing both alcohol consumption and trauma recidivism (European Monitoring Centre for Drugs and Drug Addiction, 2016; Landy et al., 2016). SBI programs involve the screening patients for risky patterns of alcohol use, followed by brief interventions, typically only 5-20 minutes (Coulton et al., 2009). Based on this evidence, the provision of SBIs became mandatory for all level-one EDs in the US in 2006 (Cherpitel et al., 2009). The most widely-cited barrier to the implementation of SBI programs in EDs is time constraints, as EDs are typically chaotic and time-crucial environments (Cherpitel, 2006; Groves et al., 2010). Other commonly-described barriers include language barriers, concerns about patient reactions to screening or patients' honesty when describing alcohol use, lack of staff knowledge or confidence in screening tools, and staff scepticism of SBI programs' effectiveness (Aalto et al., 2002; Cherpitel, 2006; D'Onofrio, 2004; Groves et al., 2010; Guly, 2004; Weiland et al., 2008).

While the majority of studies in this area have been conducted in high income countries, there is limited research exploring barriers and enablers of SBIs in low

and middle income settings, such as South Africa (Myers et al., 2012). Such research is important to ensure that SBI programs introduced in South African settings are culturally appropriate and suited to a context with limited resources and a chronic shortage of health personnel (Myers et al., 2012). We are aware of three studies investigating the effectiveness or feasibility of a SBI program in South African EDs; all three examined the STRIVE peer-led SBI program implemented at three EDs in Cape Town (Myers et al., 2012; Sorsdahl et al., 2015; van der Westhuizen et al., 2019). While a pilot study (Myers et al., 2012), randomised controlled trial (Sorsdahl et al., 2015), and evaluation (van der Westhuizen et al., 2019) found the STRIVE program to be effective, acceptable and feasible, it has since ceased due to a lack of funding. We are also unaware of any SBI programs currently operating in South African EDs. Furthermore, while the RCT and evaluation included interviews with peer counsellors and stakeholders respectively, none of these studies involved interviews with medical staff. We are also unaware of any other South African studies that have investigated ED medical staff members' perceptions of barriers and enablers to SBI program implementation.

The present study aimed to address this gap in the literature by drawing on interviews with staff members from the Groote Schuur Hospital trauma centre (ED) in Cape Town, South Africa to investigate their perceived barriers and enablers to the implementation of a SBI program in the centre. These findings can be used to inform the implementation of future SBI programs in South African ED settings, thus enhancing these programs' effectiveness in reducing alcohol-related injuries among ED attendees.

## METHOD

This study involved semi-structured interviews with Groote Schuur trauma centre staff members in mid-2011. Groote Schuur is the largest tertiary hospital in the Western Cape, and one of the largest trauma referral hospitals in the world (Nicol et al., 2014), treating Cape Town's most severe and complex injuries (Department of Health, 2010). The study was approved by a Research Ethics Committee at the University of Cape Town.

### Participants

All professional staff serving the trauma centre were eligible for inclusion. On the day of interview, available staff members were referred to the primary researcher (CP) by the trauma centre receptionist or senior trauma centre staff members. The researcher then arranged to meet with them in a private room at a convenient time. Participant recruitment ceased when researchers judged that a sufficient proportion of senior and junior doctors and nurses of a relatively small and very busy body of staff had been interviewed. Participants comprised of eight doctors (four surgical registrars, two medical officers and two trauma surgeons (head and deputy head of the trauma centre)), seven nurses (three registered nurses, two enrolled nurses, one staff nurse and one student nurse) and one social worker. All of the doctors were male, and all of the nurses and the social worker were female.

### Interview guide

Interview questions were developed from an interview guide used to investigate alcohol use risk screening in primary and mobile clinics in California (Mertens et al., 2001). These questions

were modified by researchers (CP and CW) based on previous literature, and to suit a South African context. Open-ended questions explored participants' views of alcohol-related injuries among patients and current alcohol screening and intervention procedures, and then focused on perceived barriers and enablers to the future implementation of a SBI program in the centre. The interview guide is available as a supplemental file.

### Procedures

Weekday mornings were identified as the least busy periods of the week, and thus the most appropriate time to conduct interviews. All participants provided informed consent. Interviews were voice recorded with participant consent and then transcribed verbatim for analysis. Open-ended questions explored participants' views of the extent of alcohol use and alcohol-related injuries among patients and current alcohol screening and intervention procedures, and then focused on perceived barriers and enablers to the future implementation of a SBI program in the centre.

### Data Analysis

Data were analysed following the six steps of thematic analysis outlined by Braun and Clarke (2006). First the primary author (CP) familiarised herself with the data by listening to audio files and re-reading the interview transcripts. Next, the author generated a list of initial codes and collated these into themes. These themes were then reviewed in collaboration with the senior author (CW), with CW assisting CP to define and name the themes. Finally, this report of the themes was produced (Braun & Clarke, 2006; Mauthner & Doucet, 2003). The authors

used a primarily deductive approach due to their familiarity with literature in this area, but also employed a reflexive approach to allow for unexpected themes (Braun & Clarke, 2006). All participants' names were replaced with labels (e.g. Doctor1-8) to preserve confidentiality.

## RESULTS

### Patients' alcohol use and alcohol-related injuries

All participants described a high level of alcohol use among trauma centre patients; most nurses described that almost all of their patients are intoxicated, while most doctors estimated that between 50% and 60% of patients presented with alcohol-related injuries, likely due to familiarity with findings from a study on alcohol-related injuries conducted in the centre (Peden et al., 2000). Alcohol and crystal methamphetamine were identified as the substances most commonly used by patients.

Current alcohol screening and intervention practices

The only method used by medical staff to screen patients for alcohol use was staff members' awareness of a smell of alcohol on the patient. Only one nurse described regularly having conversations with patients about their alcohol use, explaining that she was motivated to do so by previously helping her husband to stop illicit drug use.

Doctor4: *'When they come in, you cannot ask them [about their alcohol use] because they're intoxicated, so no, we never ask.'*

Nurse5: *'Very often I ask them, are there problems with alcohol, and we*

*will have a nice conversation, and they will talk to me about it.'*

The only available intervention in the Groote Schuur trauma centre was for patients with signs of domestic and/or child abuse.

Doctor4: *'There is no intervention for alcohol; that I can guarantee you. So your chances of getting any intervention are only if you are admitted and we detect something like [domestic or child] abuse and refer to the social worker.'*

### Barriers to SBI program implementation

#### Time constraints

All participants identified time as the major barrier to implementing a routine SBI program. Several staff members also reported that they currently handle high volumes of paperwork, adding further strain on their time.

Doctor8: *'There is a massive turnover of patients and chronic, chronic short staffedness... Anything that is going to take up extra time is definitely a problem.'*

Doctor4: *'We really run on the barest of the bare in terms of staff, I mean the guys here are working 3 out of 4 weekends, you can't expect too much more of them.'*

#### Injury treatment as a priority

Most staff members explained that their priority is to treat patients' injuries and then discharge them as soon as possible, to make more space for incoming patients. As a result, a several

participants felt that SBIs are not their priority, and that if such a program were to be implemented, it would need to be administered by a non-medical staff member.

Doctor2: *'My priorities are to stop bleeding and trauma-related issues, so [SBI] should be sorted out elsewhere, by somebody else.'*

One doctor described how treating patients' injuries as a priority is also influenced by patients' intoxication being somewhat of a norm in the centre.

Doctor8: *'In the trauma unit you get such a unique setting, 85% of the patients who come in are clinically intoxicated, so it becomes the norm. So you don't necessarily view that as the problem to be addressed... There are so many other things to worry about, because we are a tertiary centre these guys usually have multiple life threatening injuries, so their alcohol use gets bumped right to the bottom.'*

#### *Concerns about patient confidentiality and legal consequences*

A number of doctors and nurses raised issues concerning patient confidentiality. These staff members were worried that if they screened a patient for alcohol use, and the patient was found to be over the legal driving limit, the patient could face legal consequences.

Nurse2: *'If the patient goes to court then they'll come to us and say 'oh you wrote that Mr X was drunk and now Mr X is suing you.' We have to be careful.'*

#### *Concerns about patient reaction to screening*

A few of the staff members expressed concern at patients' reactions to being screened for alcohol use, fearing that patients may react by questioning their authority to do this, or with aggression.

Nurse5: *'They'll say to you, 'Are you a doctor, what are you?' They'd be more open if a doctor asked the questions.'*

The majority of the staff members, however, confirmed that patients' reactions would not be a concern, as they are used to providing appropriate treatment despite patients' reactions.

#### *Avoidance of patients' personal issues*

A few nurses and one of the doctors explained that they often avoid asking patients questions about their alcohol consumption as they prefer to avoid getting involved in the patients' personal circumstances.

Doctor1: *'Because you then sort of get into their personal lives... it can be a bit overwhelming. It will go beyond their alcohol abuse, it will be about how their father abused them, and all that stuff. Then you have to deal with all of that as well.'*

#### *Scepticism about SBI effectiveness*

Although all staff members supported the introduction of a SBI program, all participants also reported some scepticism about the effectiveness of SBI programs for reducing patients' alcohol use. A few of these participants also described that the effectiveness of SBI programs may be limited by broader societal issues

impacting high rates of alcohol use and alcohol-related violence, such as previous experiences with trauma and the low relative cost of alcohol in South Africa.

Doctor8: *'You wonder what the point is, because no matter what you say you're going to see this person again in two weeks, drunk again... Unless the patient is at the stage of readiness where they actually want some kind of change.'*

Doctor7: *'Alcohol is an addiction problem. You can't fix it by just talking to somebody one time. If this guy has been drinking for 20 for 30 years, you see him come here all the time, it's pointless. The thing is there is a lot of social problems, like intergenerational trauma, things beyond the hospital, so the problem starts in the community.'*

Scepticism was particularly about the applicability of a SBI program to a South African context, with one doctor describing the importance of cultural differences in influencing the program's success.

Doctor5: *'It sounds nice in theory, but it sounds like it was developed overseas, what about context?'*

Doctor3: *'Obviously you'd have to look at cultural differences, socio-economic, political differences will come into play... If it worked overseas I'm sure it could work here as well. But it has to be compatible...'*

#### *Funding concerns*

Finally, a major barrier to the implementation of a SBI program identified by most participants, particularly senior doctors,

was a lack of funding. These participants recognised that the employment of additional personnel responsible for delivering the SBIs, likely social workers, was crucial to the program's successful implementation and execution, but that this would be nearly impossible due to a lack of funding.

Doctor4: *'There are no funds available to employ anyone to do this. That is a major barrier.'*

Doctor8: *'This will only work if we hire at least one new person to do it. And if a new post needs to be created, that is a virtually impossible barrier to overcome, because there is no money to hire extra staff.'*

#### **Enablers of SBI program implementation**

Despite scepticism, every staff member confirmed that he or she would support the introduction of a mandatory SBI program within the trauma centre.

Nurse6: *'This thing sounds really important, because alcohol is a big problem... I'm definitely willing to do something to try help.'*

#### *Moment of opportunity*

The majority of trauma staff members recognised the unique moment of opportunity or "teachable moment" of a trauma centre setting for providing SBIs to patients.

Doctor8: *'The trauma unit is a good time for reflection. When they're lying there and they're on the drips and they're sobered up and in pain, it's probably the best time to do the talk, because all the circumstances are reinforcing the point.'*

Doctor1: *'So although I've said that I'm sceptical about it, if I had to pick a time, this would probably be the best time to talk to someone.'*

#### *Support of senior staff*

A few doctors said that the chances of the successful implementation of a SBI program would be increased with the support of senior staff in the centre, as these senior staff would encourage other staff to carry out SBI procedures.

Doctor6: *'If there is an active program being done that has got our heads of our departments involved... If the program has the support of the senior guys in the department, your battle is halfway won, and they will make us do it.'*

#### *Training*

Finally, all staff members recognised the potential benefits of a SBI training program, both as a means of providing information about the effectiveness of SBIs to convince staff that the program is worth their time, but also to increase their confidence in approaching patients to screen them for risky alcohol use, and to deliver effective brief interventions.

Nurse1: *'I would definitely do [SBIs] if I knew how, if I had the training. I suppose there is a certain way of approaching people that works best. If we're taught how to do it then we can do it.'*

## **DISCUSSION**

This qualitative study found that staff of the Groote Schuur trauma centre supported the implementation of a SBI pro-

gram to reduce risky alcohol use and associated injuries among their patients. Participants identified a number of barriers that may impede a SBI program's implementation, as well as enablers that are likely to facilitate it. Reductions in trauma cases following COVID-19 alcohol sales bans highlighted the crucial need to reduce risky alcohol use among South Africans (Navsaria et al., 2020). As such, implementing SBI programs in South African trauma centres should be a key priority. Our findings have utility in maximising the successful implementation of such programs.

The majority of barriers identified in our study reflect those identified in previous international literature, including time constraints (Cherpitel, 2006; Groves et al., 2010), competing priorities (Guly, 2004), patient reactions (Groves et al., 2010), patient confidentiality (D'Onofrio, 2004), scepticism regarding SBIs' effectiveness (Weiland et al., 2008), and budgetary constraints. An additional barrier not identified in the literature was a desire to avoid patients' personal issues, particularly on the part of doctors. While this is likely influenced by staff members' limited time, one doctor described feeling 'overwhelmed' by some patients' complex and distressing personal circumstances. While nurses and the social worker were willing to be involved in a SBI program, there were limited nurses employed in the centre, and the only social worker employed by the centre covered three wards as well as the trauma centre. This staff shortage, not only to assist patients with complex personal issues, but also to potentially deliver SBIs, is a major barrier identified in this study, and is a regrettably common situation in South African hospitals (Bolo & Yako, 2013; Myers et al.,

2012). Future research may benefit from assessing the cost-effectiveness of SBI programs in South African trauma centres to understand the cost of employing staff to implement and deliver such a program versus the ongoing costs associated with high levels of alcohol-related injuries.

In terms of enablers to a SBI program's implementation, participants described the trauma centre as an ideal setting for SBIs, as this takes advantage of the "teachable moment" generated by the injury to highlight the obvious harms resulting from substance use (Cherpitel, 2006; Matzopoulos et al., 2020; van der Westhuizen et al., 2019). Staff also recognised the support of senior staff as enabling the program's implementation. This was reflected in findings from the STRIVE study showing the importance of early stakeholder engagement to enhance successful program implementation (van der Westhuizen et al., 2019). Although there was some scepticism about the ability of SBI to make an impact, previous studies have shown that staff training in the SBI process may increase staff members' support for the program (Aalto et al., 2002; Seale et al., 2005).

While this study makes a novel contribution to the field, its findings may be subject to some limitations. First, the data were collected in 2011, but our findings are still relevant and applicable as we are unaware of any SBI programs currently offered in any South African trauma centres, and the findings are very timely in the wake of the impact of COVID-19 alcohol sales bans. Second, while the study may have benefitted from a larger sample, our sixteen participants represent a diversity of medical staff in a variety of junior and senior positions within the trauma centre.

## CONCLUSION

The alcohol sales bans introduced in South Africa as part of COVID-19 restrictions have highlighted the impact of alcohol on South Africa's trauma centres, and the urgent need to introduce evidence-based strategies to reduce alcohol-related harms among South Africans. These findings may be useful in guiding the effective implementation of SBI programs in trauma centres in South Africa, which we hope to see soon.

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