Hazardous alcohol use interventions with emergency patients: self-reported

practices of nurses, and predictors of behaviour

Running title: Hazardous alcohol use interventions with ED patients

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Abstract

Objectives. This study examined Australian Emergency Department (ED) nurses' practices in asking patients about alcohol and assisting them to manage their alcohol consumption. It also investigated strategies to support ED nurses in these interventions.

Methods. A two stage survey was administered to ED nurses. The first questionnaire measured theoretical and organisational predictors of behaviour, and underlying beliefs, and the subsequent questionnaire explored rates of asking and assisting patients.

Results. A total of 125 nurses returned the first questionnaire. Participants held generally positive attitudes, perceived norms, feelings of legitimacy, and perceived ability to ask about and intervene for alcohol, but lower role adequacy. The 71 ED nurses who completed the second questionnaire had intervened with almost 500 patients concerning alcohol in the previous week. Participants asked approximately one in four patients about alcohol (*median* = 26.3% of patients, 1095/4279 total patients asked). The Theory of Planned Behaviour did not predict rates of asking or assisting patients. Several strategies were identified that may increase rates: identify environmental factors that prevent nurses acting on their intentions to ask and intervene, raise confidence and skills, make asking about alcohol part of routine assessment, make supports such as drug and alcohol units or nurses available, and implement organisational policies on alcohol.

Conclusions. Nurses appear positively disposed to engage with patients in regard to alcohol. However, greater support is needed to achieve the considerable significant public health benefits from this engagement. The findings point to several practical strategies that could be pursued to provide this support.

Introduction

There is increasing emphasis on the role of Emergency Departments (ED) in responding to alcohol consumption and associated risk. The harmful effects of alcohol contribute 3.2% of the burden of disease and injury in Australia.[1] Related hospital use, such as ED presentations, are rising at a concerning rate.[2] An international meta-analysis found approximately 16% of individuals presenting to the ED yielded positive scores on screening tools for alcohol problems, and as many as 28% of patients with certain presentations such as injury presented with a positive blood alcohol reading.[3]

Such presentations in the ED can provide a 'teachable moment' as patient receptiveness to changing alcohol consumption may be high.[4] A significant proportion of ED patients experiencing alcohol-related harm respond to advice presented by health professionals.[5, 6] The efficacy of brief interventions as an alcohol secondary prevention strategy has been well established,[7, 8] although this does not always translate into real world effectiveness.[9, 10] Brief interventions can reduce alcohol-related injuries,[11] health care utilisation and associated treatment costs,[12] and specifically ED admissions.[13]

ED nurses may be particularly well suited to provide alcohol interventions.[14, 15] Supporting ED nurses' to engage in alcohol interventions could have a substantial and cost-effective impact on reducing alcohol-related harm and healthcare utilisation. However, there is little Australian research on ED nurses' attitudes or barriers to providing alcohol interventions. Indig and colleagues[15] surveyed doctors and nurses in two NSW hospitals. Important predictors in asking about and intervening for alcohol were confidence, being motivated by legal issues, and feeling a responsibility to ask, record, or intervene. The greatest barriers were patients' state of intoxication, lack of patient motivation, time difficulties, insufficient ED resources, and insufficient drug and alcohol

resources. Weiland and colleagues[16] found ED staff were generally positive about alcohol interventions. Time was cited as a substantial barrier, along with communication issues with clients (such as comprehension and intoxication problems), motivation, perceived value of screening, immediacy of presenting condition, and privacy and honesty concerns. International surveys have reported similar barriers.[17, 18]

The objective of this study was to examine Australian ED nurses' current practices in asking patients about alcohol and assisting patients to manage their alcohol consumption and to investigate strategies to support ED nurses in these interventions.

Method

The study was conducted by the National Centre for Education and Training in Addiction, Flinders University, South Australia, with ethics approval from the Flinders University Clinical Research Ethics Committee. The study design was a prospective survey of a national convenience sample of ED nurses.

Procedures

The Theory of Planned Behaviour was used as a guiding theoretical framework. The theory has been widely used to understand and predict behaviour.[19] It incorporates actors' attitudes, the influence of other individuals and norms (subjective norms), the ability to perform the behaviour (perceived behavioural control) and intentions to perform the behaviour, in order to predict a particular behaviour[20] (see Figure 1). Perceived behavioural control is often split into two dimensions: perceptions of whether the behaviour is within their control (controllability) and having the requisite skills and confidence to perform the behaviour (self-efficacy).[21] Attitudes, subjective norms, and perceived behavioural control are determined by underlying beliefs, termed behavioural beliefs, normative beliefs, and control beliefs respectively.[20] These often neglected beliefs

provide detailed information on the issues underlying the determinants of behaviour. Using the Theory of Planned Behaviour framework, a three step method was employed: 1) a preparatory qualitative study, 2) a questionnaire examining predictors of behaviour, and 3) a second questionnaire measuring behaviour.

[Insert Figure 1 about here]

1. Preparatory study. An initial qualitative study was conducted in accordance with Ajzen's[22] guidelines for eliciting underlying beliefs, employing critical case sampling.[23] Rural, metropolitan, junior, and senior ED nurses and nurse managers at various hospitals were invited to participate through professional contacts and networks. Data collection involved structured telephone interviews that continued until no new themes emerged. A total of 22 ED nurses participated. Two coders undertook thematic analysis following rigourous guidelines for reliability and validity.[24] The findings provided: 1) lists of underlying behavioural, normative and control beliefs for asking and assisting patients, and 2) strategies used to ask or assist patients at risk of alcohol-related harm. These were then included as items in the main study questionnaires, using wording as close as possible to participants' own words.

2. First Questionnaire: Predictors of Behaviour. The first questionnaire was informed by the preparatory study and constructed according to Ajzen's [22] guidelines for Theory of Planned Behaviour questionnaires. The questionnaire was piloted on six ED nurses, and changes made in response to feedback.

Participants were recruited through several avenues. The Australian College of Emergency Nursing mailed a questionnaire with a reply paid envelope to their 199 members. Nurse managers were recruited through professional contacts in the Australian Capital Territory, Queensland, and South Australia and provided questionnaires and reply

paid envelopes to their ED nursing staff. Nurses were also opportunistically recruited through staff meetings at a South Australian hospital. Unique identifiers were used to ensure no individuals participated twice.

Participants were asked their age, gender, years of experience in the ED, and their alcohol consumption: how many times in the last 30 days they had consumed 11 or more (for men) or 7 or more (for women) standard drinks on any one day (based on the then current NHMRC[25] guidelines for high risk alcohol consumption for short-term harm). Participants also indicated alcohol-specific education or training undertaken, and details of any hospital policy governing asking patients about alcohol or assisting patients to manage their alcohol consumption.

Attitudes, subjective norms, self-efficacy, controllability, intention, and underlying beliefs for both 1) asking patients about alcohol and 2) assisting patients to manage their alcohol consumption were measured using five point semantic differential scales. For underlying beliefs, after completing this rating, participants then ranked the five most important beliefs in each set.[26]

The questionnaire also measured organisational factors suggested by the qualitative study to be potentially relevant: role adequacy (having the skills to address alcohol-related problems), using the role adequacy subscale of the Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ)[27]; role legitimacy (feeling addressing alcohol was a legitimate part of their role), using the role legitimacy subscale of the AAPPQ[27]; workload, using the role overload subscale of the Michigan Organization Assessment Questionnaire (MOAQ)[28]; autonomy, using the freedom subscale of the MOAQ[28]; and co-worker and supervisor support, using the co-worker support and supervisor support subscales of the Job Content Questionnaire.[29]

3. Second Questionnaire: Self-reported behaviour. Each participant was asked to complete two questionnaires to allow a separate, prospective measure of behaviour. This addresses important criticisms of contemporaneous measurement of behaviour: that it measures past rather than future behaviour and that consistency bias artificially inflates relationships between predictors and behaviour.[30, 31] As with the first, the questionnaire was constructed according to Ajzen's[22] guidelines, informed by the preparatory study, and piloted with six ED nurses.

Upon return of a completed first questionnaire, the second questionnaire and a reply paid envelope was sent to the nominated address, timed to be received one week following receipt of the first. The questionnaire measured frequency of asking patients about alcohol and assisting patients to manage their alcohol consumption using various strategies elicited from the preparatory study. Participants were also asked to estimate how many patients they had seen in the last week and how many they had intervened with in regard to alcohol. Participants were instructed to complete it for the week they worked following completion of the first questionnaire. The two questionnaires were matched using a unique anonymous code.

Analysis

Descriptive analysis. Univariate normality was assessed and medians and interquartile ranges (IQR) used in place of means and standard deviations for non-normal variables. T-tests were used to compare participants who did or did not return the second questionnaire. Demographics of the full sample were compared to a national nursing labour force estimate[32] to examine sample representativeness. Descriptive statistics for predictor variables and the rankings of each set of underlying beliefs were calculated on the full sample.

Path analysis. Path analysis in the form of a series of multiple regressions testing only the theorised relationships was conducted to assess the ability of the Theory of Planned Behaviour to predict rates of behaviour.

Per patient measures of behaviour were calculated by dividing reported rates by the estimated number of patients seen in the preceding week. For three cases where the number of patients was not recorded, the mean (59 patients) was used. Since these two variables were non-normal, square root transformations were used. Regressions on behaviour used only the subset of participants who returned both questionnaires, the remaining regressions used the whole data set. For other missing data, pairwise deletion was used.

Risky alcohol consumption, organisational policy, co-worker support, supervisor support, workload, role adequacy, role legitimacy, autonomy, and amount of education and training were regressed on attitudes, subjective norms, self-efficacy and controllability. Based on Green's[33] rule of thumb for multiple regression analysis with a medium effect size, the required sample size ranged from 74 for the regressions on behaviour to 122 for the regressions exploring the organisational factors.

Results

Of 312 first questionnaires administered, 125 were returned (40%). A further 79 returned the second questionnaire (63% of those who returned the first questionnaire). Four (5%) could not be matched to the first questionnaire, and four (5%) had not worked in the ED in the intervening week, leaving 71 valid behaviour responses (21% of total sample).

Comparisons between groups indicated those who returned the second questionnaire reported greater intentions to ask and assist patients, more positive attitudes towards asking, and higher role legitimacy, autonomy, and controllability than those who did not return the second questionnaire (see Table 1).

[Insert Table 1 about here]

Demographics

The majority of nurses were female (106/123, 2 missing cases, 86%, 95% CI = 80-92%); similar to the Australian labour force estimate (91.4%, $p > .05$). Mean age was 37.02 ($SD = 10.00$); lower than the mean age for the labour force estimate ($M = 43.1$, $p < .001$). Median ED experience was 5.0 years (IQR = 2.0-10.0).

A quarter of nurses (32/121, 4 missing cases, 26%, 95% CI = 19-34%) reported consuming alcohol at a high risk level at least once in the last 30 days (for those 26%: median = 2.0 occasions, IQR = 1.0-4.0).

Theoretical Variables and Organisational Factors

Mean scores on all Theory of Planned Behaviour variables were above the scale midpoint, with the exception of controllability for assisting patients (see Table 2). Average levels of role legitimacy, autonomy, workload, co-worker support, and supervisor support were high, while average levels of role adequacy were below the scale midpoint.

[Insert Table 2 about here]

Approximately two thirds of nurses (n = 86/125, 69%, 95% CI = 61% - 77%) had undertaken alcohol-specific education or training, with in-service training most frequently reported (n = 48/125, 38%, 95% CI = 30-47%). Thirty one percent of nurses (n = 34/111, 14 missing cases, 95% CI = 20-36%) were aware of an ED alcohol intervention policy. Policies most commonly covered asking patients about alcohol or breathalysing patients on admission, but typically were not mandatory.

Underlying beliefs

The ranked importance of the behavioural (attitudinal) and control (factors that affect nurses' ability to ask or assist) beliefs are shown in Tables 3 and 4. For asking, the most important influencing factors were knowing how to ask sensitively and having good rapport with the patient, while for assisting, the busyness of the ED was rated as most important.

[Insert Tables 3 and 4 about here]

For normative beliefs, nurses ranked the influence of the patient, medical staff, and drug and alcohol nurses as most important when deciding whether or not to ask or assist patients (see Table 5).

[Insert Table 5 about here]

Self-reported behaviour

Nurses asked on average approximately one in four patients about alcohol (*median* = 26.3% of patients, *IQR* 6.7%-72.7%, 1095/4279 total patients). One in three nurses (35%, 95% CI = 24% - 46%) breathalysed at least one patient (*median* = 6.7% of patients,

IQR 2.7%-10.9%, 118/4279 total patients). Eight nurses (11%, 95% CI = 4-19%) did not ask or breathalyse any patients in the week preceding the survey.

The 71 nurses who completed the behaviour measure intervened with a total of 488 patients (*median* = 13.0 patients, *IQR* 4.0-37.0). Use of different assisting strategies grouped according to the 5A's approach to brief interventions (Ask, Assess motivation and confidence to quit, Advise, Assist, Arrange)[34] is shown in Table 6. Participants were more likely to advise than assist or arrange.

[Insert Table 6 about here]

Prediction of Self-reported Behaviour

The path analysis results are shown in Figure 2. While organisational policy, supervisor support, personal risky alcohol consumption, and role legitimacy and adequacy all predicted the theoretical determinants of behaviour, these theoretical variables did not predict self-reported behaviour. No other organisational factors impacted on the variables in the model.

[Insert Figure 2 about here]

Discussion

This is one of only a few studies that have examined the role of ED nurses in responding to alcohol-related harm. The fact that the 71 ED nurses who completed the behaviour measure intervened with nearly 500 patients (*n* = 488) in one week, with an average of almost two per day, demonstrates the possible extent of public health benefit if this profession was supported to deliver alcohol interventions. The comparison of participants who returned and those who did not return the second questionnaire suggests

these rates may be indicative of a "best case" sample of ED nurses who are more positively disposed and more able to ask and intervene around alcohol. Participation in the study is also likely to have increased rates of behaviour, resulting in potentially overestimated rates. The results nevertheless indicate considerable potential for the prevention of alcohol-related harm if all ED nurses were encouraged and supported in this role. The emphasis on advising strategies rather than the potentially more intensive assisting and arranging strategies are in line with findings for tobacco interventions by a range of health professionals,[35] and illustrate scope to further increase impact.

Encouragingly, two thirds of the nurses had undertaken alcohol-related training, and the average levels of the theoretical variables and organisational factors were largely positive, reflecting positive attitudes, positive perceptions of the ease of asking and assisting, strong intentions to ask and assist, strong perceptions that others would approve, a positive sense that responding to alcohol was a legitimate part of their role, and positive evaluations of autonomy, workload, and co-worker and supervisor support. Nurses generally felt it was in their control whether or not they asked patients about alcohol, but felt less control over whether they could assist patients. Nurses were most concerned about the normative expectations of the most immediate people involved – the patient, the patient's family, the medical staff, and drug and alcohol nurses.

It is also heartening to note that nurses emphasised the beneficial outcomes of asking about alcohol and assisting patients. In particular, the patient care outcomes noted for asking patients about alcohol, such as pre-empting withdrawal, or medication or anaesthetic interactions indicate valid reasons why ED nurses may wish to routinely incorporate alcohol consumption into their assessment and history taking. Only a minority of nurses were concerned about losing rapport or eliciting an aggressive reaction. It was more common to acknowledge that there were ways to broach the topic sensitively to not

cause offence. Patient factors, such as patients being heavily intoxicated or unconscious were not rated as critical barriers. In the preparatory study, nurses reported using alternative strategies if the patient was not conscious or coherent enough to discuss their alcohol consumption, such as leaving literature in patients' pockets for them to read later.

The Theory of Planned Behaviour did not predict rates of asking or assisting patients. There was a small shortfall in the number of participants (71 instead of 74) needed to achieve suitable power. Given the moderate level of power obtained, we interpret the small coefficients to indicate that intention and perceived behavioural control in this case are not predictive of behaviour. It may be that the hectic nature of ED work reduces nurses' opportunities to translate their intentions into actions. Theoretically, perceived behavioural control should account for all barriers to translating intentions into action, at least as far as people are able to accurately predict barriers. The perceived behavioural control measure may not have fully captured these barriers, or it may be that ED nurses find the influence of the busy work environment difficult to predict. Previous applications of the Theory of Planned Behaviour to nurses have also acknowledged this possibility.[36, 37] One important avenue for future research may be to investigate what barriers influence nurses' ability to act on their intentions, and on creating an ED environment where these barriers are reduced.

The findings point to important factors that could be targeted to support ED nurses. Key factors that are immediately amenable to intervention include: building nurses' confidence and skills (particularly as role adequacy was the only factor to receive a low average score), making asking about alcohol a routine component of assessment, implementing organisational policies that address asking and assisting patients in regard to alcohol, increasing medical staff and supervisor support for this role for ED nurses, and making supports such as drug and alcohol units or nurses available to support ED nurses.

These factors may only lead to higher levels of intention, however, and concurrent efforts would need to address the situational barriers to nurses acting on their intentions.

Increasing ED nurses' confidence and skills may not be just a matter of providing education and training: the lack of relationships between education or training and the theoretical predictors supports research indicating that training may not necessarily result in changes to work practice, and that workplace barriers can influence workers' ability to transfer training into practice.[38] Efforts to increase confidence and skills may need to examine both training and its translation into the workplace to succeed.[39]

The high level of risky drinking reported by ED nurses (26% of participants in the last month) is cause for concern. This level exceeds the national prevalence rate of 13% for risky or high risk drinking for the population overall,[40] (i.e., the cut off for the national prevalence rate was for a lower category of risk). Furthermore, it exceeds the national rate of 11.5% for all females, 14% for females aged 30-39 (the mean age of this sample), and 23% for the highest female age bracket, 20-29 year olds (who comprised 24% of this sample). The level also exceeds the 9.2% prevalence rate of risky or high risk drinking (using the same criteria as the national prevalence rate) among health and welfare professionals reported by Pidd et al.[41] This suggests ED nurses may be an important population at risk of alcohol-related harm themselves and could benefit from appropriate intervention tailored for them as a specific target group.

Limitations

The low response rate points to the difficulties and shortcomings of using survey methods in a busy work environment such as an ED. Recruiting through a national college and nurse managers at a range of hospitals supports the representativeness of the current sample. Nevertheless, caution needs to be taken when generalising to the wider ED nurse

population because it was a convenience sample with a low response rate, and the ED

nurses in this study were younger than the national labour force estimate for nurses. The

behaviour measures were self-report, and hence the usual caveats around self-report, such

as potential biases and level of accuracy, apply.

Conclusion

The findings demonstrate considerable scope for public health benefit if ED nurses

were supported to ask patients about alcohol and assist patients at risk to manage their

alcohol consumption. The strategies identified are practical, feasible and immediately

actionable, and have the potential to reduce alcohol-related harm, improve patient

outcomes, and reduce future alcohol-related health care utilisation.

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Table 1

Means and confidence intervals for Theory of Planned Behaviour variables and

organisational factors for nurses who returned or did not return the second questionnaire

	Returned second questionnaire (n = 71)		Did not return the second questionnaire (n = 54)	
	M	CI	M	CI
Ask patients about alcohol				
Intention*	3.9	(3.7-4.1)	3.6	(3.4-3.8)
Self-efficacy	3.8	(3.6-3.9)	3.6	(3.5-3.8)
Controllability**	3.5	(3.4-3.7)	3.2	(3.0-3.4)
Attitude**				
Subjective norms	3.8	(3.7-4.0)	3.7	(3.5-3.9)
Assist patients to manage alcohol				
Intention***	3.8	(3.6-4.0)	3.3	(3.1-3.4)
Self-efficacy	3.2	(3.1-3.3)	3.0	(2.8-3.2)
Controllability*	3.1	(2.9-3.3)	2.8	(2.6-3.0)
Attitude				
Subjective norms	3.7	(3.5-3.8)	3.5	(3.3-3.7)
Organisational Factors				
Role adequacy	2.8	(2.7-3.0)	2.6	(2.4-2.9)
Role legitimacy*	3.6	(3.4-3.7)	3.3	(3.1-3.5)
Workload	3.2	(2.9-3.4)	3.3	(3.1-3.5)
Autonomy*	3.4	(3.2-3.5)	3.1	(2.9-3.3)
Amount of education and training	0.9	(0.8-1.1)	0.9	(0.7-1.1)
Co-worker support	4.0	(3.9-4.2)	4.0	(3.8-4.2)
Supervisor support	3.6	(3.4-3.9)	3.4	(3.2-3.7)

* $p < .05$, ** $p < .01$, *** $p < .001$ for difference between means for that variable

Table 2

Means and standard deviations for Theory of Planned Behaviour variables and
organisational factors for Emergency Department nurses

Variable	*M*	*SD*	Range
Theory of Planned Behaviour Variables			
Ask patients about alcohol			
Intention	3.78	.80	1.00 – 5.00
Self-efficacy	3.72	.62	2.60 – 5.00
Controllability	3.38	.81	1.50 – 5.00
Attitude	3.74	.42	2.75 – 5.00
Subjective norms	3.65	.63	2.50 – 5.00
Assist patients to manage alcohol			
Intention	3.57	.82	1.00 – 5.00
Self-efficacy	3.11	.58	1.20 – 4.50
Controllability	3.00	.73	1.00 – 4.50
Attitude	3.94	.47	2.75 – 5.00
Subjective norms	3.40	.65	2.00 – 5.00
Organisational Factors			
Role adequacy	2.74	.87	1.00 – 5.00
Role legitimacy	3.44	.64	1.00 – 5.00
Workload	3.22	.85	1.00 – 5.00
Autonomy	3.25	.72	1.00 – 5.00
Amount of education and training	.91	.76	0.00 – 4.00
Co-worker support	4.02	.59	2.00 – 5.00
Supervisor support	3.54	1.01	1.00 – 5.00

Note. For all variables except age, and amount of education and training, scales
range from 1 (low) to 5 (high). *N*s ranged between 121-125.

Table 3

Behavioural beliefs and control beliefs for nurses asking patients about their alcohol

consumption

Asking patients about their alcohol consumption	% ranked in Top 5 (% ranked as #1)
Behavioural beliefs	
Improves the diagnosis and understanding of patient's condition	92% (41%)
Assess and prepare for alcohol withdrawal	86% (26%)
Assess if alcohol will interact with any medications or with the anaesthetic	85% (15%)
Allows me to offer improved care	73% (5%)
Provides opportunity to see whether they want help managing their alcohol	58% (3%)
Documents their alcohol consumption for future presentations	39% (0%)
May make the patient reflect on their alcohol consumption	35% (2%)
May cause a hostile or aggressive reaction	17% (5%)
May diminish my rapport with the patient	8% (2%)
May intrude on the patient	5% (0%)
May make the patient feel discriminated against	3% (0%)
Control beliefs	
Knowing how to ask sensitively about alcohol consumption	67% (35%)
Having a good rapport with the patient	66% (12%)
Having a non-judgemental view	66% (10%)
Having experience asking patients about their alcohol consumption	58% (8%)
If the question is part of the general history taking/assessment	52% (4%)
Lack of privacy in the Emergency Department	42% (5%)
If the patient has family or visitors present	42% (3%)
If the patient is aggressive	34% (12%)
If the patient is heavily intoxicated	25% (1%)
If the patient is not conscious	19% (8%)
Patients may lie about how much they drink	18% (1%)
Feeling that the patient will not be receptive	8% (0%)

Table 4

Behavioural beliefs and control beliefs for nurses assisting patients to manage their

alcohol consumption

Assisting patients to manage their alcohol consumption	% ranked in Top 5 (% ranked as #1)
Behavioural beliefs	
Patient's health will improve	71% (17%)
May improve the patient's safety and the safety of others	67% (17%)
May help decrease repeat alcohol-related presentations to the ED	61% (7%)
May increase the patient's motivation to change their alcohol consumption	60% (14%)
Patient may learn to manage their alcohol consumption	58% (20%)
Patient's lifestyle and quality of life will improve	53% (6%)
May assist with other related family issues	41% (2%)
May lead to less healthcare expenditure	29% (1%)
The time taken may detract from my other work	20% (5%)
Patient may react violently or aggressively	17% (6%)
Will take considerable time to sit down and talk with the patient	17% (4%)
May diminish my rapport with the patient	3% (0%)
Control beliefs	
The busyness of the ED	74% (11%)
Knowing how to help the patient manage their alcohol consumption	65% (38%)
Having a drug and alcohol unit or drug and alcohol nurses in the hospital	61% (15%)
Having a good rapport with the patient	47% (5%)
If the patient is heavily intoxicated	44% (8%)
The need to attend to their presenting problem	43% (10%)
If the patient is not receptive	41% (6%)
Inability to provide follow up in the ED	40% (3%)
Patients with alcohol problems can not be helped effectively in the ED	34% (1%)
Patients with alcohol-related problems can be rude and difficult	26% (4%)
When intoxicated patients leave before I can help them	15% (0%)
If the patient is older than me	4% (0%)

Table 5

Individuals and groups who were ranked as being most influential on nurses' decision on whether or not to ask or assist patients around alcohol

	% ranked in Top 5 (*%* ranked as #1)
The patient	84% (62%)
Medical staff	80% (7%)
Drug and alcohol nurse(s)	74% (15%)
The patient's parents/family	61% (3%)
Other nursing staff	55% (7%)
Senior nurses	36% (0%)
Mental health nurse(s)	34% (1%)
Specialist drug and alcohol services	34% (4%)
Wider community	22% (1%)
Hospital management	11% (0%)

Table 6

Percentage of nurses ($N = 71$) using each strategy for assisting patients to modify their

alcohol consumption in the past week, and frequency of for those who used the strategy

Strategy	% of nurses who used in last week (95% CI)	Median and IQR if used
Assess		
Ask patient if they need help managing alcohol	52%	2.0 (1.0-8.0)
Advise		
Discuss health consequences of alcohol	68%	3.5 (1.0-9.5)
Promote safe drinking to the patient	49%	5.0 (2.0-10.0)
Discuss their alcohol consumption in general	79%	5.0 (2.0-10.0)
Assist		
Give literature on alcohol to the patient	15%	5.0 (1.0–16.0)
Give card for a specialist service to the patient	23%	2.0 (1.0–5.0)
Discuss with the patient options for getting help	52%	4.0 (2.0-8.0)
Assist with the patient's alcohol withdrawal	74%	2.0 (1.0-5.0)
Arrange		
Refer patient to a specialist service	34%	2.0 (1.0-5.0)
Refer patient to in-hospital alcohol unit or nurse	30%	3.0 (1.0-5.0)
Refer patient to a sobering up unit	13%	3.0 (1.0-5.5)
Refer patient to a GP	17%	2.0 (1.0-10.25)
Refer patient to a psychologist/psychiatrist	7%	3.0 (1.0-4.5)
Refer patient to a social worker	25%	1.0 (1.0-3.0)

Figure Captions

Figure 1. Predictors of behaviour according to the Theory of Planned Behaviour [20].

Figure 2. Standardised betas for the regression analysis, and proportions of variance explained, for Emergency Department nurses asking patients about alcohol (top coefficients) and assisting patients to manage their alcohol consumption (bottom coefficients).

* $p < .05$, ** $p < .01$, *** $p < .001$

Attitudes	

| Subjective Norms | → | Intention | → | Behaviour |

Perceived Behavioural Control	
Self-Efficacy	
Controllability	