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Acceptability Among Frontline Staff Toward Distributing an Anonymous Alcohol Survey in Emergency Departments

A Mixed Methods Study

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Abstract

Emergency departments (EDs) serve as the front line when patients encounter the hospital system. Limited data are available of patients' alcohol habits collected during Danish ED visits, and no studies have, to our knowledge, examined frontline staffs' (registered nurses and medical secretaries) acceptability to deliver anonymous alcohol surveys to patients. We aimed at examining the proportion of survey respondents and the prevalence of patients' alcohol habits and also exploring frontline staff acceptability of the

distribution of an anonymous survey regarding patients' alcohol habits in EDs. Intendedly, *all* eligible patients ≥ 18 years old entering two EDs in March 2019 should receive a survey based on the *Alcohol Use Disorder Identification Test*. The study was an explanatory, sequential, mixed methods design, and results were analyzed with descriptive statistics and a deductive content analysis based on the *theoretical framework of acceptability*. In total, 15% ($n = 1,305$) of the total 8,679 patients in the EDs returned the survey. Qualitative analysis of interviews ($n = 31$) with staff showed that they had been reluctant to distribute the survey primarily because of ethical concerns of anonymity, freedom of choice, and being nonjudgmental toward patients. Hence, patients with no obvious alcohol problems were more likely to receive the survey. Still, we found that 23% of the respondents had an Alcohol Use Disorder Identification Test score ≥ 8 . Results indicate that frontline staffs' recognition of patients' alcohol use is inadequate, and findings show a low degree of acceptability among staff to deliver an anonymous survey, which is in line with earlier described barriers toward screening activities in EDs.

Keywords: Acceptability, Alcohol, AUDIT, Emergency Department, Explanatory Sequential, Frontline Staff, Interviews, Mixed Methods, Survey

BACKGROUND

Alcohol problems of people attending emergency departments (EDs) are frequent, as 7.4% of all admittances may be alcohol related (National Health Service, 2020). Around 20% of the adult population in Denmark is estimated to have a hazardous alcohol intake, defined as drinking above recommended maximum alcohol limits of 14/21 drinks per week for women/men (Hansen et al., 2011). From Danish somatic hospital wards, 16%–26% of patients are found to exceed that level (Nielsen et al., 1994; Schwarz et al., 2018b; Zierau et al., 2005), whereas 40% has been found in EDs in the

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United Kingdom (Drummond et al., 2014). There is currently no prevalence of patients' alcohol habits solely from Danish EDs available.

Alcohol-related admittances to EDs can have various causes such as intoxication, withdrawal symptoms, and injuries (Baldassarre et al., 2018; Cherpitel, 2009; Wolf et al., 2020). Excessive alcohol use and associated problematic drinking behavior and consequences are attributed to more than 200 diseases and conditions and furthermore have psychological and social consequences (World Health Organization, 2018) that eventually may require in-hospital treatment. To date, many alcohol problems are undiscovered, underdiagnosed, and undertreated (Carvalho et al., 2019; Schwarz et al., 2018a; Sivertsen et al., 2021). A cohort study showed that patients with a first-time alcohol-related hospital contact have an increased mortality (Askgaard et al., 2019). In addition, people with excessive alcohol use initiate treatment with a delay for more than a decade (Schwarz et al., 2018a). This underlines that strategies to prevent alcohol-related problems, facilitate early detection, and provide interventions that are needed to improve the prognosis of these patients.

The EDs are recognized as the main entrance of the hospital providing critical treatment for those in need, which implies necessary tasks of triage, priority, and maintaining flow (Hasselbalch et al., 2016; Kirk & Nilsen, 2015). Nearly 70% are discharged straight from the ED without admittance to specialty wards ("AHH Hospital," 2021); this leaves a "window of opportunity" for clinicians to detect and intervene on alcohol problems (European Monitoring Centre for Drugs and Drug Addiction, 2016). Still, it is not common practice for EDs to take on this responsibility of preventive care (Bernstein & Haukoos, 2008).

Various types of alcohol screenings are available, for example, CAGE, fast alcohol screening test, Alcohol Use Disorder Identification Test (AUDIT)/AUDIT-C, and The Modified-Single Alcohol Screening Question (Babor et al., 2001; Bush et al., 1998; Coulton et al., 2009; Ewing, 1984; Hodgson et al., 2002), and have been tested nationally and internationally, when assessing alcohol use in EDs (Bruguera et al., 2018; Coulton et al., 2009; Drummond et al., 2014), usually with a setup where research staff or other external resources collect the data (Vendetti et al., 2017). However, this approach may not reflect daily practice, which is important for implementing a sustainable solution. Other studies have focused on existing staff resources receiving formalized training to accommodate this (Mitchell et al., 2017; van Loon et al., 2017; Venkat et al., 2017). Still, knowledge of long-term sustainability beyond project period (Bacidore et al., 2020) and knowledge of how an intervention unfolds in clinical practice with a minimum of researcher involvement are limited.

Acceptability is an implementation outcome and an indicator for implementation success (Proctor et al., 2011). It is defined as "a multi-faceted construct that reflects the extent to which people delivering or receiving a healthcare intervention consider it to be appropriate, based on anticipated or experienced cognitive and emotional responses to the intervention" (Sekhon et al., 2017). If an intervention is considered

acceptable, people are more likely to comply with it, thus increasing the likelihood of its effectiveness (Proctor et al., 2011; Sekhon et al., 2017). From a staff perspective, barriers and facilitators aimed at staff performing alcohol screenings and brief interventions have been explored extensively, showing a variety of barriers, such as limited time and lack of training and support (Broyles, Rodriguez, et al., 2012; M. Johnson et al., 2011). To overcome these, implementation strategies should be matched to address those specific barriers in an implementation process (Powell et al., 2017). Acceptability, as an implementation outcome, has not been examined to the same extent. Mainly, it has been examined in relation to feasibility studies, and similar to studies on barriers and facilitators, the focus has been on staff carrying out the screening and brief interventions (A. Karlsson et al., 2005; Myers et al., 2012; Patston et al., 2017). Currently, there are, to our knowledge, no studies of acceptability among ED staff regarding the delivery of an anonymous survey regarding patients' alcohol intake.

Recently, an ethnographic study showed that staff are mainly aware of severely alcohol-dependent patients in the ED, overlooking those easily accessible for prevention (Sivertsen et al., 2021). Because we have no prevalence of alcohol use from Danish EDs, we designed a pragmatic survey study where ward managers and frontline staff were involved in the practical setup. The study was conducted this way for researchers to identify challenges that might occur in real-life practices, and we therefore also examined staff acceptance toward delivery of the anonymous survey.

Aim

The purpose of this study was (a) to examine the proportion of survey respondents and the prevalence of patients with a hazardous, harmful, or dependent alcohol use in two EDs and to explore (b) staff acceptability of the distribution of an anonymous survey regarding patients' alcohol habits and (c) which results emerge from connecting quantitative data with qualitative data.

METHODS

Study Design

A mixed methods (MM) design was chosen for this study. MM is defined as "research in which the investigator collects and analyzes data, integrate the findings, and draw inferences using both qualitative and quantitative approaches [...]" (Tashakkori & Creswell, 2007). We used an *explanatory sequential design*, with an emphasis on the qualitative data contributing to explain the quantitative results, in MM terms written as [quan → QUAL] (Creswell & Plano Clark, 2018). The framework for our QUAL analysis is *retrospective acceptability* from the theoretical framework of acceptability (TFA; Sekhon et al., 2017).

Study Setting

The Danish hospitals are financed by taxes and have free access for all citizens regardless of income and insurances. The

study was conducted in two EDs at two urban university hospitals. *Site A* is an ED in eastern Denmark (Capital Region) that has an annual flow of 71,500 patients. This ED consists of an emergency room, a fast-track room, and an acute medical unit, all with 43 beds. *Site B* is an ED in the western part of Denmark (Region Midtjylland) with an annual patient flow of 62,500. This ED consists of an emergency room, a trauma center, and two acute medical units, with a total of 56 beds.

Data Collection

Quantitative Strand [Quan] The survey was time-limited and completed simultaneously in Sites A and B from March 1 to 31, 2019. Anonymous paper questionnaires in envelopes were delivered on sites for the staff to hand them out to all patients entering the ED. In Site A, we have registered how many questionnaires were delivered to the site, distributed to patients, and returned as opposed to Site B where only the number of returned questionnaires was registered. The survey was available in both Danish and English languages. Envelopes had a short and informative text about the purpose of the study, and all patients regardless of their alcohol consumption level were encouraged to participate. Furthermore, the envelopes' text stated the inclusion criteria (all eligible patients \geq 18 years old entering the ED). Patients unable to cooperate were excluded by assessment from staff, for example, cognitively impaired or terminal and acute/life-threatening conditions. On the basis of an earlier finding of nurses' reluctance to address patients' alcohol habits and not wanting to appear judgmental (Sivertsen et al., 2021), it was clearly specified on the envelope that the survey was anonymous.

The primary outcome of interest in the quantitative study is the proportion of returned questionnaires, consisting of 10 questions from the AUDIT developed by the World Health Organization (Babor et al., 2001). Besides the 10-item AUDIT, patients were asked about date, gender, and age. The secondary outcome is the prevalence of the AUDIT scores. Each answer was given a point between 0 and 4, and the total maximum score is 40. AUDIT scores are classified into low-risk drinking (score = 0–7), hazardous use (score = 8–15), harmful use (score = 16–19), and alcohol dependency (score = 20–40; Babor et al., 2001). To get an indication of the registered alcohol use in the studied departments, we collected the total number of patients seen in EDs and the total number of International Classification of Diseases, 10th Revision codes of alcohol from the hospital quality database in the period of March 1–31, 2019.

In this study, we were not implementing a screening in routine care but conducted a 30-day survey of all patients attending the EDs, where staff was actively involved in the delivery of the survey. To facilitate the survey and obtain a prevalence of patients' alcohol habits, we applied different types of implementation strategies (Powell et al., 2015; see Table 1), based on previous findings (Sivertsen et al., 2021). As part of implementation strategies, we used existing staff resources in the participating wards to support the delivery of the survey, for example, by daily reminders (see Table 1). Nursing ward

managers from both sites, two social nurses with specialized knowledge on socially marginalized patients (Dideriksen et al., 2019) from Site A, and clinical nurse specialists at Site B acted as champions. An implementation champion is defined as an "individual(s) who dedicate themselves to supporting, marketing, and driving through an implementation, overcoming indifference or resistance that the intervention may provoke in an organization" (Powell et al., 2015).

Qualitative Strand [QUAL] To explain the quantitative results, semistructured interviews were conducted with frontline staff from Sites A and B (Green et al., 2009). In this article, we use the term *frontline staff* as an overall term for registered nurses and medical secretaries, because in the studied settings, these two professions are first in line to receive the patients when entering the hospital. In Denmark, the educational length for registered nurses is 3.5 years (bachelor) and 2 years for medical secretaries. Individual interviews were held face-to-face in Site A in January and February 2020, whereas those in Site B were slightly postponed because of COVID-19, and individual interviews were held virtually as video meetings via Cisco Webex in June 2020. All interviews ($n = 31$) were performed by one of the authors (D. M. S.). Sampling was purposive; only participants who had been involved in the survey intervention were recruited. Site A used both nurses and medical secretaries to deliver the survey, whereas Site B primarily used patient-allocated nurses. Furthermore, selection criteria included a variation in level of experience and diverse attitudes toward the survey study (see Table 2). A coauthor (K. V. A.) was responsible for recruitment of participants from Site B and for setting up the connection for online interviews, technical support, to provide participants with information of the study and to collect consent forms. All interviews were held during working hours and were recorded on a Dictaphone and transcribed verbatim. The duration of the interviews had a mean time of 30 minutes (range: 17–60 minutes). Because we wanted to capture the main dimensions of acceptability, the interview guide was based on the seven categories from TFA: affective attitude, burden, ethicality, intervention coherence, opportunity costs, perceived effectiveness, and self-efficacy (Sekhon et al., 2017). The guide was developed by author D. M. S. and adjusted in collaboration with coauthors J. W. K., O. A., and U. B.

Data Analysis

Quantitative survey data were entered in EpiData and then analyzed descriptively using R (The R Foundation for Statistical Computing, Vienna, Austria), Version 3.6.1. The outcomes are divided into groups (Sites A and B) and presented as numbers, mean, range, percentages, median, and interquartile range.

Qualitative analysis was performed according to the TFA (Sekhon et al., 2017). TFA is not an analytic process tool; therefore, we used *deductive content analysis* (Elo & Kyngäs, 2008) to analyze the data material. After transcriptions of interviews, they were read and reread to get a sense of the data set. Then, the material was split into units of analysis by D. M. S. A coding matrix was developed (see Table 3); the

TABLE 1 Strategies Used to Facilitate the Survey Intervention

Type of Strategies	Actions	Frequency	
		Site A	Site B
Conduct educational meetings Before kickoff	Research team presenting at staff meetings	2	1
Develop educational materials	Project description for newsletter and mail Envelope text (explanatory for both patients and staff, guiding in choice of words for staff)		
Distribute educational materials Before kickoff	Personal mail sent directly to staff	1	1
	Newsletters	2	1
Champions By nursing ward managers, social nurses, and clinical nurse specialists	Visibility, support, reminders at morning meetings, rounds, and checkups	Daily	Daily
Reminders	Posters	Visible at all times	Visible at all times
	Reminders at morning meetings	Daily	Daily
	“Mailbox” with text	Visible at all times	Visible at all times
	Questionnaires placed in front desks	Visible at all times	Visible at all times
Provide local assistance Practical support by research team	Printing questionnaires	When needed	When needed
	Packing envelopes	When needed	When needed
	Supply of pens	When needed	When needed
	Emptying of the “mailboxes”	Daily (also <i>reminder</i>)	Daily (also <i>reminder</i>)
	Refill of questionnaires to sites	Daily check (also <i>reminder</i>)	Daily check (also <i>reminder</i>)

manifest content from the units were extracted, subcategorized, and then categorized into the generic categories based on TFA. The author group discussed findings until reaching consensus.

In the presentation of results, the quantitative results constitute a minor part of the data material, and the emphasis is on the larger qualitative part [quan → QUAL]. The different phases in this study are strongly related because the questions asked in the interviews arise from the survey study; hence, we have a *sequential integration approach* (Creswell & Plano Clark, 2018). In this article, the stage of integration is in the discussion part, where results are conjointly interpreted.

Ethics

The study was conducted according to the Helsinki Declaration (World Medical Association, 2001) and approved by the

Data Protection Agency in the Capital Region of Denmark (2012-58-0004 and VD-2018-229, I-Suite: 6471). According to the Danish National Committee on Health Research Ethics, there are no requirements for ethical approval in survey and interview studies that do not include human biological materials. Survey participants received information regarding the survey and anonymous participation from the envelope text. At the end of the survey, phone numbers to local alcohol treatment clinics were provided. Interview participants received written and oral information regarding the study and signed consent forms.

RESULTS

Quantitative Results

During the survey period, 8,679 patients entered the two EDs (see Table 4). Site A had 5,432 unique patient contacts, and

TABLE 2 Overview of Interview Participants

Interview Participants	Site A		Site B
Total, N = 31	11 nurses	10 medical secretaries	10 nurses
Gender: female, n	10	10	8
Seniority in ED (years), mean (range)	5.8 (1–16)	12.9 (1–33)	9.2 (1.5–26)
Total seniority (years), mean (range)	11.5 (5–18)	17.0 (1–33)	15.9 (2.5–40)
Abbreviation: ED = emergency department.			

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TABLE 3 Coding Matrix Showing the Analytic Process With Examples From Each TFA Category

Unit of Analysis	Manifest Content	Subcategory	Generic Category (Based on TFA)
“As with everything else, I think it was very annoying to be assigned new tasks” (Nurse 8, Site A)	It is annoying to be assigned new tasks.	A human feeling of annoyance	Affective attitude
“It was a bit difficult to get it distributed due to busyness and probably also because we often have patients who cannot answer it, and then, when you do get someone who can, you sort of forget” (Nurse 4, Site A)	Busyness and forgetfulness hinder the distribution.	Busy environment	Burden
“For many, it's a personal problem. They don't want the nurses to know about it, even though it is anonymous” (Nurse 5, Site A)	People do not want to share their alcohol habits with anyone regardless of anonymity.	A private and sensitive topic	Ethicality
“Often, our problem is that only few [staffs] receive the information [about the project]. That means, you hear a bit about what it is and then you presume something based on that” (Nurse 6, Site B)	The staff does not always get the information they need to make the right choices, and then they do what they believe is right.	Knowledge diffusion is challenged when working in shifts.	Intervention coherence
“No, I don't think it [handing out forms] took over my other tasks” (Secretary 1)	Handing out forms did not take over other tasks.	Priorities	Opportunity costs
“They are here with us for such a short time anyway, right? And then they can admit some things here...and then what?” (Secretary 6)	There is no point in admitting an excessive use, when patients are in the ED for such a short time.	Higher purpose	Perceived effectiveness
“It's actually right up our street, as it is part of our normal job, it's something we do” (Nurse 8, Site B)	Asking about alcohol is part of the job, and therefore, it is natural to inquire.	Belief in own capabilities	Self-efficacy

Abbreviations: TFA = theoretical framework of acceptability; ED = emergency department.

Site B had 3,247. Furthermore, patients with alcohol-related International Classification of Diseases 10th Revision codes were 190, of which 94 were in Site A and 96 were in Site B. In total, we received 1,305 questionnaires corresponding to 15% of the total 8,679. As shown in Table 4, the median age for respondents was 46 years and their median AUDIT score was 4. Most respondents were characterized as being at a low risk (78%). However, 23% of the patients at Sites A and B had an AUDIT score ≥ 8 indicating hazardous use, harmful use, or alcohol dependency. The distribution of AUDIT scores at Sites A and B were quite similar. Differences between men and women were also alike in the two sites. In the low-risk category, most were women, whereas the proportion of men was higher in the hazardous, harmful, and dependent categories.

A subanalysis of the delivery and returns of questionnaires in Site A showed a low distribution rate, because of the 5,432 patients who entered the ED, only 692 (12.7%) patients received a questionnaire. However, the number of returned questionnaires was 561, which results in a response rate of 81%.

Qualitative Results

In the following, we have examined the qualitative perspectives of the low distribution rate. Different dimensions of staff acceptability regarding the distribution of an alcohol survey were covered in the interviews. The results are presented according to the categories of the TFA.

Affective Attitude This category exposed emotional reactions. Both staff's own feelings and staff's perception of the patients' feelings connected to the distribution of surveys. In general, staff found that most patients did not react negatively when receiving the survey. They described that most patients expect to be asked such questions when entering an ED.

I don't think anyone showed any negativity when I handed it out, if I told patients what it was about: “Sure, we can easily do that.” It wasn't a problem. (Medical Secretary 10)

Some were annoyed by the task of distributing; others found the content and topic to cross their personal boundaries. As one participant mentioned, “*I actually find it embarrassing*”

TABLE 4 Survey Characteristics of ED Patients in March 2019

	Site A	Site B	Combined
Total number of eligible patients attending ED ≥ 18 years old ^a	5,432	3,247	8,679
ICD-10 codes related to alcohol ^b	94	96	190
Staff distributed survey, <i>n</i>	692	N/A	N/A
Survey respondents, <i>n</i>	561	744	1,305
Women, <i>n</i> (%)	300 (54)	396 (53)	696 (53)
Age, median (IQR)	44 (30;60)	48 (29;67)	46 (30;64)
AUDIT score, ^c median (IQR)	4 (2;7)	4 (2;7)	4 (2;7)
AUDIT score, ^c <i>n</i> (%)			
Low risk	395 (78)	543 (77)	938 (78)
Hazardous alcohol use	88 (17)	127 (18)	215 (18)
Harmful alcohol use	7 (2)	13 (2)	20 (2)
Dependence symptoms	15 (3)	18 (3)	33 (3)

Abbreviations: ED = emergency department; ICD-10 = International Classification of Diseases, 10th Revision; N/A = not available; IQR = interquartile range; AUDIT = Alcohol Use Disorder Identification Test.

^aUnique patients. ^bICD-10 codes: F10.0, F10.1, F10.2, F10.3, F10.4, F10.5, F10.6, F10.7, F10.8, F10.9, G31.2, G62.1, G72.1, I42.6, K29.2, K70.0, K70.1, K70.2, K70.3, K70.4, K70.9, K85.2, and K86.0. ^cMissing values for complete AUDIT scores: Site A = 56, Site B = 43.

to distribute the survey. Maybe it was because some staff *did* experience patients being upset for receiving it:

Patients were almost offended when receiving it. Some indicated, “well, I don't have a problem!” or “yes, I can easily answer that because I don't drink.” Nobody wants you to think they are an alcoholic. At least, that is what I think. I certainly experienced it a couple of times. (Nurse 4, Site A)

Many staff members also expressed their concerns about whether they offended the patients. They were afraid that patients would think they suspected them to have a drinking problem and thereby creating distrust between them from the start.

Some said, “Do I look like that?”. They thought we could see something that they couldn't. That we suspected them of something. (Medical Secretary 2)

Although the survey should be delivered in a neutral “we do this for *all* patients” approach, this potential suspicion was troubling for some, especially the medical secretaries.

Burden In the category of burden, we see the entire spectrum regarding the distribution of the survey, from no burden at all to major burden. A part of the participants found the task to be no burden at all. They found it very easy to perform and in line with their other tasks.

We just had to hand them out and collect the filled in forms. So, it was extremely manageable. I mean, it was very easy! (Nurse 10, Site A)

Most found it to be a burden in different ways. They felt it as an additional task, an extra demand on top of all other demands. Although the physical task of delivering is considered very easy, the complexity is big. Their busy daily practice made it difficult to remember to distribute the survey; sometimes it was forgotten, and sometimes it was deprioritized.

I felt it was an extra task, so it was deprioritized. (Nurse 5, Site B)

Furthermore, some described a tendency to disclaim responsibility by pushing the task forward to colleagues in the next shift. Some also described missing a personal gain from it, calling for involvement and ownership.

It was just another task that we got. What's in it for me? (Nurse 1, Site A)

From a patient perspective, staff perceived it as a burden for patients to answer while they were sick, because it demands a certain mental energy from the patient who is in the ED with another aim. They explained that, as a health care professional, you have responsibility for the patient's condition and your primary aim is their cause of admission.

Ethicality Staffs' ethical considerations are evolved around two main issues: alcohol problems being a sensitive topic and whether admission to an ED is the right time and place to address alcohol problems. Multiple ethical perspectives were present regarding the sensitivity of alcohol problems. The patients' anonymity and privacy were repeatedly addressed. Supplementary to this, a few problematized that staff distributing the survey gave a wrong impression; it was perceived as confrontational. It was described as important for staff to be able to distance themselves from the survey, because it contradicts their perception of their professional role as caring and protective of their patients.

It's a private matter and people's own choice. It's basically nothing we should interfere with. (Nurse 3, Site B)

Situational responsiveness from staff led to many ethical considerations. Subjective assessments and clinical judgment of who is it appropriate to ask was made all the time. In

addition, the freedom of choice to participate was brought up frequently.

It's about a sense of propriety, and I handed it out when I thought it was okay. (Medical Secretary 1)

Some suggested that if you asked about more lifestyle issues at the same time to “wrap it in,” it would be more acceptable to ask about alcohol. One questioned if patients at all should be confronted with their drinking habits at all, because some patients wish to live in “*happy ignorance*.”

Although, as described in the category *intervention coherence*, some thought that only those with an alcohol problem were interesting for the survey, most knew that it was for everyone. By being for everyone, you could avoid being judgmental, discriminating, or stigmatizing, which was reassuring for staff.

If you hand it out to everyone, then there is no stigma in it. (Nurse 6, Site B)

Furthermore, some mentioned that if *all* patients receive it, you avoid suspicion and shame. However, one suggested that asking the patients could be done in a more discrete manner instead of promoting it, as a general survey for all patients in the ED. If it was the right time and place to address alcohol habits during the visit to an ED was questioned by some. Furthermore, if the patient is asked regarding habits by the doctor and the nurse *and* in a survey, some participants thought it would be too overwhelming for the patient and thereby unethical not to take the total amount of questions/encounters into consideration.

Intervention Coherence In this category, staff expressed their knowledge of intervention components, procedure, information level, design of the survey, target group, and inclusion and exclusion criteria. In general, staff found the information level about the survey to be satisfactory in both sites. However, working in shifts caused that some felt they missed information of the study. Despite this, most expressed that they knew what to do when receiving a patient. They felt that researchers had made it easy for them, both in terms of procedure and because they could underline that *all* eligible patients ≥ 18 years old initially should receive the survey.

It was a generic study and not only aimed at alcoholics and addicts, as I understood it. (Medical Secretary 3)

Some had read the questionnaire to be able to help patients fill it out; others felt no need of that and just referred patients to read the envelope text themselves. The findings exposed that, during the survey period, interpretations of inclusion and exclusion criteria appeared among staff. Naturally, most staff did not distribute the survey to severely intoxicated patients, those with severe withdrawal symptoms, or those with dementia, which were all part of the exclusion criteria (unable to cooperate).

I mostly went for those who I knew could answer it. People who are relevant, with whom you can have a conversation, who can understand the questions, and who may also understand why they must fill it in, and that it has no consequences. (Nurse 4, Site A)

However, findings showed that questionnaires were distributed to selected patient groups, besides the exclusion criteria. The acuteness of the patient's condition was a subjective assessment, and therefore, as one nurse said: “Suddenly everyone can be acutely ill” (interview, S11) and not receive a survey. Most staff did not like to hand out the survey to patients with a known alcohol problem; they found that it was unnecessary when they already knew the patient had a problem.

The discussion in the office was like, should he get it? Because, we know very well that he keeps coming back for detoxifications, because he keeps falling and drinks too much. Should he really answer this then? Since we know what it's all about. (Medical Secretary 5)

I think, it was easier asking people we believed not to have an alcohol problem about alcohol habits rather than alcoholics—we have plenty of those. (Nurse 4, Site B)

Contrary to this, a few liked to distribute *only* to those who they knew had a problem. In addition, if patients seemed agitated or upset, most staff did not wish to deliver the survey. There was one difference between sites that stood out. In Site A, several staff members were reluctant to distribute the survey to patients with a non-Western background, out of respect for their cultural tradition where drinking alcohol is not common practice. This was not the case for Site B.

We didn't ask the ones with dementia, of course, and those who came in extremely drunk. We couldn't get in contact with them either. And those with Muslim names—should we ask, shouldn't we ask? (Nurse 5, Site A)

Opportunity Costs This category was the least spoken of. This category dealt with priorities and if staff felt that the survey took time from other important tasks. Generally, staff did not find it time-consuming and overshadowing other tasks in a practical manner. However, some mentioned that the acute function of an ED *is* their primary purpose and preventive tasks are therefore downgraded. Furthermore, staff shortage and layoffs due to economy are mentioned, which affect the working environment and how they prioritize daily tasks.

Perceived Effectiveness The overall purpose and meaning with the survey were addressed. Is the target group capable of answering? Who *is* the target group actually? Although the envelope text explained it, this perception differed between staff and researchers, as researchers would appreciate that everyone participated in the survey and some staff assumed that a certain group would be the most interesting:

I guess you can say that those who were interesting for the study were not able to fill it in, right? (Nurse 2, Site A)

Although most of the participants meant that most patients politely agreed to participate, some stated that many patients declined. Staff questioned if the survey “*caught*” the right ones, considering that those patients who were too ill to answer potentially could be those with a severe alcohol

problem. Some thought that only the patients who did *not* have a problem would fill out the questionnaire. However, many staff members meant that the fact that the survey was anonymous meant more honest responses. Others questioned if the patients answered truthfully.

You can't do such a study because it's their own immediate truth. But it's not the reality! It's like with the obese people. They don't eat anything either [...] It's a picture perfect! (Nurse 6, Site A)

Staff had many ideas how to increase the response rate to elevate the *perceived effectiveness* of the study. Several actions that would be characterized as implementation strategies were mentioned: increased focus from managers and reminders; for example, some suggested using existing TV screens in the waiting areas with study information. Especially for Site A, the medical secretaries were emphasized as important facilitators.

The only ones who actually kept talking about it [the form] were the medical secretaries. They kept reminding us: "Did you remember to bring it?", "Please, remember to bring it back." (Nurse 5, Site A)

Furthermore, the waiting time in the ED was highlighted as a good use of time to participate in surveys like this. Everyone agreed that a paper version was the most easy and acceptable way to perform this, because electronic forms would have required too many resources.

Self-Efficacy Delivery of the survey made staff reflect on their everyday practices in addressing alcohol issues. Some staff expressed confidence in their own capabilities to address alcohol problems and to sense when alcohol was a problem. Typically, these had specialist knowledge, having worked in psychiatry or with socially vulnerable patients.

I'm so involved in the problem, so for me, it's never wrong [to ask] since I have background knowledge [...] I'm trained for it [asking about alcohol habits]. (Nurse 6, Site A)

Others were not fond of addressing alcohol issues and did not feel they had the right competences to do it, although they are used to asking sensitive questions working in this environment. Participants generally had a strong belief in other professions' abilities. Medical secretaries felt that sometimes it was better if the nurses addressed the topic, because they believed that they were more used to addressing difficult matters.

We feel better when certain things are said by the nurses. (Medical Secretary 3)

Nevertheless, many of the medical secretaries expressed the text on the envelope as a great help, to know how to explain the survey.

DISCUSSION

In summary, we conducted a simple, pragmatic, and anonymous survey study for a period of 1 month, where we used selected implementation strategies (see Table 1) based on a previous observation study (Sivertsen et al., 2021). We sought prevalence from patients in EDs, but we also wanted to examine what happens in a real-life setting with limited researcher in-

volvement. We received a small number of questionnaires considering the total amount of potential respondents; 15% of the patients in the ED completed the survey because of a low distribution rate, which was then investigated qualitatively.

Similar results of low screening rates have also been reported in other ED studies where ED staff themselves are performing the screening (Bacidore et al., 2017; Désy & Perhats, 2008; Drummond et al., 2014). Patston et al. (2017) reported that only 11.79% of the eligible patients were screened, when nurses had an active role in performing the screening (Patston et al., 2017). In our time-limited study, the paper edition for patient self-reporting was considered easy and demanded no additional resources from staff, and furthermore, the feeling of anonymity was greater. If a screening should be implemented in a sustainable manner, literature from EDs has shown promising results with high screening rates from 54% to 97% for electronic solutions when a screening is part of the triage (J. A. Johnson et al., 2013; van Loon et al., 2017), although the study by Johnson et al. had a comprehensive screening, brief intervention and referral to treatment organization and funding from the Substance Abuse and Mental Health Services Administration. When patients themselves conduct a computerized alcohol test following a print with tailored personalized feedback, a 41% screening rate was found (Carlford et al., 2009).

A subanalysis of our findings showed that, of those questionnaires that *were* distributed, we had a high response rate (81%) displaying a willingness to answer among those patients who received the anonymous survey. Acceptability studies of alcohol screening have shown high acceptance from hospitalized patients' perspectives (Broyles, Rosenberger, et al., 2012; Groves et al., 2010; A. Karlsson et al., 2005). Similarly, the public supports being asked about alcohol consumption, when in contact with the health care system in the United Kingdom and Scandinavia (N. Karlsson et al., 2021; O'Donnell et al., 2018). This general acceptance among patients/citizens suggests that the reluctance to perform screenings and the underlying reasons may more likely be at staff level.

The low distribution rate was confirmed in the explanatory interviews where we explored staff acceptability of the distribution process. We found that staff made individual interpretations and assessments beyond exclusion criteria and the survey was repeatedly not distributed to patients they *knew* had alcohol problems, patients they suspected to have alcohol problems, patients who seemed agitated/upset, and patients with a non-Western background. As shown in the category *intervention coherence*, these additional exclusions or selections occurred although most of the staff knew that the survey was intended for *all* eligible patients. The reluctance to deliver the survey was primarily connected to the *ethicality* category and the wish of being nonjudgmental and respecting patients' autonomy. Previous literature has shown that, before project start of implementing a computerized alcohol screening in an ED, 60% of nurses expected negative reactions from the patients, but in reality, only 10% experienced it during the project (Bendtsen et al., 2007). Furthermore, clinicians are reluctant to address alcohol issues unless the problem is obvious

or out of concern of damaging the relationship between patient and clinician (Broyles, Rodriguez, et al., 2012; Grønkvær et al., 2017; Hellum et al., 2016). In this study, results are opposite to some extent: It seems less intrusive to hand out a survey of alcohol habits to those who does *not* seem to have a problem. Despite this, 23% had an AUDIT score ≥ 8 , which is similar to the number of positive screens (22%) in another ED study (J. A. Johnson et al., 2013). A study from a Dutch ED had only 9% positive screens (van Loon et al., 2017), but in a subsequent study, it was shown that those patients who were left unscreened were in a higher risk of hazardous consumption (van Loon et al., 2020). If this is applied to our study, the prevalence is likely higher and thus supports the hypothesis that many alcohol problems go unnoticed in a busy ED (Sivertsen et al., 2021) and that screening efforts should not be based on an opportunistic case finding but rather a systematic approach. Furthermore, our findings show a low number of registered alcohol diagnoses ($n = 190/8,679$). It is well known that alcohol problems are undertreated mainly because of stigma and inadequate screening efforts (Carvalho et al., 2019) and the low registration could be attributed to this. Only the patients with most severe alcohol problems were registered, which is also in line with findings from a recent ethnographic study where mainly patients with severe alcohol problems were recognized (Sivertsen et al., 2021). Furthermore, according to our qualitative findings, the patients with a known alcohol problem often did not receive the survey. Therefore, patients in the “dependent” category in Table 4 are most likely different from those registered in the database. Hence, it calls for additional studies of registration practices to examine the gap between the number of registered diagnoses and the 23% of a highly selected patient group, seemingly not having a problematic alcohol use, who has an AUDIT score equivalent to hazardous use or above. In the category *perceived effectiveness*, staff doubt whether the patients answer honestly, and some propose that only the patients with a known alcohol use are “interesting” for the study; however, they seldom receive the survey. This doubt in effectiveness has been addressed in previous screening, brief intervention and referral to treatment literature, where staff question the value of screening (Weiland et al., 2008) and the evidence of brief intervention (Whitty et al., 2015).

Although medical secretaries were pointed out as important facilitators, some had strong *affective attitudes* and lacked *self-efficacy* toward bringing up the subject of patients' alcohol use. In the past, few studies have included medical secretaries or receptionists as a potential resource in alcohol screening covering preoperative elective surgery, EDs, and general practice (Lock et al., 2000; Nordqvist et al., 2006; Shourie et al., 2007). Our findings are in line with theirs; they concluded that medical secretaries felt inconvenient (Nordqvist et al., 2006; Shourie et al., 2007) and, even with training and ongoing support perceptions, did not change to the better (Lock et al., 2000). In this light, it seems that neither our applied strategies (see Table 1) nor training and support are adequate implementation strategies. If aiming for a sustainable solution, even more multicomponent strategies (Powell et al.,

2015) are needed to tailor the intervention directly to their professional competences and preferences. Overall, staff expressed that distributing the survey was not a demanding task (*burden*) in the physical or procedural sense, because it was modified to their work processes and the like. However, at a psychological level, it was considered challenging. At times, it was simply forgotten or deprioritized, but often, it was because of ethical considerations, individual assessments, phrasing, how to present the study to patients, anonymity issues, and the concern of being perceived as judgmental. Acceptability is not dichotomous, and therefore, the degree of acceptance within this concept is more like a continuum (Sekhon et al., 2017). Because our results showed more challenges than promoting factors, we interpret our overall acceptability level as low. By using the implementation strategies (see Table 1), we aimed at accommodating some of the well-known barriers among staff when confronting patients with their alcohol habits (Broyles, Rodriguez, et al., 2012; M. Johnson et al., 2011). Despite these efforts, a seemingly simple procedure turned out to be immensely complex and with low acceptability. Thus, if the task to deliver an anonymous survey is considered this contentious by the staff, we must rethink our approach to the problem.

STRENGTHS AND LIMITATIONS

A strength is that the design choices of this study are based on ethnographic observations and we have applied implementation strategies for transparency. In addition, it was conducted by staff in the ED. However, there are numerous limitations to this study. First, because the survey was anonymous, we did *not* collect personal identification numbers; thus, we were neither able to combine or cross-analyze any data nor able to collect further registry data from participants (demographics, medical history, etc.). Second, keeping the procedure as simple as possible, we did not ask staff to register the number of excluded patients and their causes for exclusion, because this would hinder the pragmatic design and require extra work processes on top of delivering the actual survey. Hence, readmitted patients may have received the survey twice, and we have no quantitative knowledge of refusal rates or exclusions. Third, because we only made detailed registrations of delivery, distribution, and returns in Site A, we are only able to conclude on patients' willingness to answer from this site. Finally, the inherited drawback in design of both interview and survey data may be that they are biased, respectively, from recall and social desirability bias.

CONCLUSION

In this pragmatic and anonymous survey study of patients' alcohol habits, we found a low distribution rate of 15% out of the total ED sample. Explanatory analysis of acceptability showed that the action of distributing the survey was found easy and did not take time from other tasks; however, it was still considered a major *burden* and distributed to a highly selected group of patients, primarily patients who did not appear to have an alcohol problem. This meant that acceptability was

in general low, mainly because of ethical concerns causing a personal assessment of participants' eligibility. Among the selected group of respondents, 23% had an AUDIT score ≥ 8 . Subanalysis of quantitative results from Site A showed that although the distribution rate was low, the response rate among the participating patients was high (81%). These results emphasize the importance of a systematic screening approach, not opportunistic by staff assessment.

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REFERENCES

- AHH Hospital. (2021). <https://intranet.regionh.dk/ahh/afdelinger/Akutmodtagelsen/om-afdelingen/Sider/afdelingens-profil.aspx>
- Askgaard, G., Leon, D. A., Deleuran, T., & Tolstrup, J. S. (2019). Hospital admissions and mortality in the 15 years after a first-time hospital contact with an alcohol problem: A prospective cohort study using the entire Danish population. *International Journal of Epidemiology*, 49(1), 94–102. <https://doi.org/10.1093/ije/dyz159>
- Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). *AUDIT. The Alcohol Use Disorders Identification Test. Guidelines for use in primary care*. World Health Organization, Department of Mental Health and Substance Dependence.
- Bacidore, V., Kameg, B., & Mitchell, A. M. (2020). Strategies for alcohol screening, brief intervention, and referral to treatment sustainability in the emergency department. *Advanced Emergency Nursing Journal*, 42(3), 225–230. <https://doi.org/10.1097/TME.0000000000000311>
- Bacidore, V., Letizia, M., & Mitchel, A. M. (2017). Implementing interprofessional alcohol screening, brief intervention, and referral to treatment in the emergency department: An evidence-based quality improvement initiative. *Advanced Emergency Nursing Journal*, 39(3), 199–216. <https://doi.org/10.1097/TME.0000000000000151>
- Baldassarre, M., Caputo, F., Pavarin, R. M., Bossi, M. M., Bonavita, M. E., Caraceni, P., Grignaschi, A., Balloni, M., Cavazza, M., Bernardi, M., & Domenicali, M. (2018). Accesses for alcohol intoxication to the emergency department and the risk of re-hospitalization: An observational retrospective study. *Addictive Behaviors*, 77, 1–6. <https://doi.org/10.1016/j.addbeh.2017.08.031>
- Bendtsen, P., Holmqvist, M., & Johansson, K. (2007). Implementation of computerized alcohol screening and advice in an emergency department—A nursing staff perspective. *Accident and Emergency Nursing*, 15(1), 3–9. <https://doi.org/10.1016/j.aen.2006.09.004>
- Bernstein, S. L., & Haukoos, J. S. (2008). Public health, prevention, and emergency medicine: A critical juxtaposition. *Academic Emergency Medicine*, 15(2), 190–193. <https://doi.org/10.1111/j.1553-2712.2008.00055.x>
- Broyles, L. M., Rodriguez, K. L., Kraemer, K. L., Sevick, M. A., Price, P. A., & Gordon, A. J. (2012). A qualitative study of anticipated barriers and facilitators to the implementation of nurse-delivered alcohol screening, brief intervention, and referral to treatment for hospitalized patients in a Veterans Affairs medical center. *Addiction Science & Clinical Practice*, 7(1), 7. <https://doi.org/10.1186/1940-0640-7-7>
- Broyles, L. M., Rosenberger, E., Hanusa, B. H., Kraemer, K. L., & Gordon, A. J. (2012). Hospitalized patients' acceptability of nurse-delivered screening, brief intervention, and referral to treatment. *Alcoholism: Clinical and Experimental Research*, 36(4), 725–731. <https://doi.org/10.1111/j.1530-0277.2011.01651.x>
- Bruguera, P., Barrio, P., Oliveras, C., Braddick, F., Gavotti, C., Bruguera, C., López-Pelayo, H., Miquel, L., Segura, L., Colom, J., Ortega, L., Vieta, E., & Gual, A. (2018). Effectiveness of a specialized brief intervention for at-risk drinkers in an emergency department: Short-term results of a randomized controlled trial. *Academic Emergency Medicine*, 25(5), 517–525. <https://doi.org/10.1111/acem.13384>
- Bush, K., Kivlahan, D. R., McDonell, M. B., Fihn, S. D., & Bradley, K. A. (1998). The AUDIT Alcohol Consumption Questions (AUDIT-C): An effective brief screening test for problem drinking. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test. *Archives of Internal Medicine*, 158(16), 1789–1795. <https://doi.org/10.1001/archinte.158.16.1789>
- Carlfjord, S., Nilsen, P., Leijon, M., Andersson, A., Johansson, K., & Bendtsen, P. (2009). Computerized lifestyle intervention in routine primary health care: Evaluation of usage on provider and responder levels. *Patient Education and Counseling*, 75(2), 238–243. <https://doi.org/10.1016/j.pec.2008.10.004>
- Carvalho, A. F., Heilig, M., Perez, A., Probst, C., & Rehm, J. (2019). Alcohol use disorders. *The Lancet*, 394(10200), 781–792. [https://doi.org/10.1016/S0140-6736\(19\)31775-1](https://doi.org/10.1016/S0140-6736(19)31775-1)
- Cherpitel, C. J. (2009). *Alcohol and injuries: Emergency department studies in an international perspective*. World Health Organization.
- Coulton, S., Perryman, K., Bland, M., Cassidy, P., Crawford, M., Deluca, P., Drummond, C., Gilvarry, E., Godfrey, C., Heather, N., Kaner, E., Myles, J., Newbury-Birch, D., Oyefeso, A., Parrott, S., Phillips, T., Shenker, D., & Shepherd, J. (2009). Screening and brief interventions for hazardous alcohol use in accident and emergency departments: A randomised controlled trial protocol. *BMC Health Services Research*, 9, 114. <https://doi.org/10.1186/1472-6963-9-114>
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research (Third edition, international student edition)*. Sage.
- Désy, P. M., & Perhats, C. (2008). Alcohol screening, brief intervention, and referral in the emergency department: An implementation study. *Journal of Emergency Nursing*, 34(1), 11–19. <https://doi.org/10.1016/j.jen.2007.03.019>
- Dideriksen, T. L., Lisby, M., Brúnés, N., & Dreyer, P. (2019). Social nurses' descriptions of nursing: A qualitative study of what social nursing is and does? *The Open Nursing Journal*, 13(1), 228–236. <https://doi.org/10.2174/1874434601913010228>
- Drummond, C., Deluca, P., Coulton, S., Bland, M., Cassidy, P., Crawford, M., Dale, V., Gilvarry, E., Godfrey, C., Heather, N., McGovern, R., Myles, J., Newbury-Birch, D., Oyefeso, A., Parrott, S., Patton, R., Perryman, K., Phillips, T., Shepherd, J., ... Kaner, E. (2014). The effectiveness of alcohol screening and brief intervention in emergency departments: A multicentre pragmatic cluster randomized controlled trial. *PLoS One*, 9(6), e99463. <https://doi.org/10.1371/journal.pone.0099463>
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>
- European Monitoring Centre for Drugs and Drug Addiction (2016). *Emergency department-based brief interventions for individuals with substance-related problems: A review of effectiveness*. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Publications Office of the European Union.
- Ewing, J. A. (1984). Detecting alcoholism. The CAGE questionnaire. *JAMA: The Journal of the American Medical Association*, 252(14), 1905–1907. <https://doi.org/10.1001/jama.252.14.1905>
- Green, J., & Thorogood, N. (2009). *Qualitative methods for health research (2nd ed.)*. Sage Publications Ltd.
- Gronkjaer, M., Søndergaard, L. N., Klit, M. Ø., Mariegaard, K., & Kusk, K. H. (2017). Alcohol screening in North Denmark Region hospitals: Frequency of screening and experiences of health professionals. *Nordic Studies on Alcohol and Drugs*, 34(3), 230–242. <https://doi.org/10.1177/1455072517691057>
- Groves, P., Pick, S., Davis, P., Cloudesley, R., Cooke, R., Forsythe, M., & Pilling, S. (2010). Routine alcohol screening and brief interventions in general hospital in-patient wards: Acceptability and barriers. *Drugs: Education, Prevention and Policy*, 17(1), 55–71. <https://doi.org/10.3109/09687630802088208>
- Hansen, A. B., Hvidtfeldt, U. A., Gronbaek, M., Becker, U., Nielsen, A. S., & Tolstrup, J. S. (2011). The number of persons with alcohol problems

- in the Danish population. *Scandinavian Journal of Public Health*, 39(2), 128–136. <https://doi.org/10.1177/1403494810393556>
- Hasselbalch, R. B., Plesner, L. L., Pries-Heje, M., Ravn, L., Lind, M., Greibe, R., Jensen, B. N., Rasmussen, L. S., & Iversen, K. (2016). The Copenhagen Triage Algorithm: A randomized controlled trial. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, 24(1), 123. <https://doi.org/10.1186/s13049-016-0312-6>
- Hellum, R., Bjerregaard, L., & Nielsen, A. S. (2016). Factors influencing whether nurses talk to somatic patients about their alcohol consumption. *Nordic Studies on Alcohol and Drugs*, 33(4), 415–436. <https://doi.org/10.1515/nsad-2016-0034>
- Hodgson, R., Alwyn, T., John, B., Thom, B., & Smith, A. (2002). The FAST alcohol screening test. *Alcohol and Alcoholism*, 37(1), 61–66. <https://doi.org/10.1093/alcac/37.1.61>
- Johnson, J. A., Woychek, A., Vaughan, D., & Seale, J. P. (2013). Screening for at-risk alcohol use and drug use in an emergency department: Integration of screening questions into electronic triage forms achieves high screening rates. *Annals of Emergency Medicine*, 62(3), 262–266. <https://doi.org/10.1016/j.annemergmed.2013.04.011>
- Johnson, M., Jackson, R., Guillaume, L., Meier, P., & Goyder, E. (2011). Barriers and facilitators to implementing screening and brief intervention for alcohol misuse: A systematic review of qualitative evidence. *Journal of Public Health*, 33(3), 412–421. <https://doi.org/10.1093/pubmed/fdq095>
- Karlsson, A., Johansson, K., Nordqvist, C., & Bendtsen, P. (2005). Feasibility of a computerized alcohol screening and personalized written advice in the ED: Opportunities and obstacles. *Accident and Emergency Nursing*, 13(1), 44–53. <https://doi.org/10.1016/j.aen.2004.10.013>
- Karlsson, N., Skagerström, J., O'Donnell, A., Abidi, L., Thomas, K., Nilsen, P., & Lid, T. G. (2021). Public perceptions of how alcohol consumption is dealt with in Swedish and Norwegian health care. *Nordic Studies on Alcohol and Drugs*, 38(3), 243–255. <https://doi.org/10.1177/1455072520985981>
- Kirk, J. W., & Nilsen, P. (2015). The influence of flow culture on nurses' use of research in emergency care: An ethnographic study. *Klinisk Sygepleje*, 02(29), 16–35.
- Lock, C. A., Kaner, E. F., Heather, N., Gilvarry, E., & Mcavoy, B. R. (2000). Changes in receptionists' attitudes towards involvement in a general practice-based trial of screening and brief alcohol intervention. *British Journal of General Practice*, 50(451), 111–115.
- Mitchell, A. M., Kane, I., Lindsay, D. L., Hagle, H., Puskar, K., Aiello, J., Boucek, L., & Knapp, E. (2017). Educating emergency department registered nurses (EDRNs) in screening, brief intervention, and referral to treatment (SBIRT): Changes in attitudes and knowledge over time. *International Emergency Nursing*, 33, 32–36. <https://doi.org/10.1016/j.ienj.2016.12.003>
- Myers, B., Stein, D. J., Mtukushe, B., & Sorsdahl, K. (2012). Feasibility and acceptability of screening and brief interventions to address alcohol and other drug use among patients presenting for emergency services in Cape Town, South Africa. *Advances in Preventive Medicine*, 2012, 569153. <https://doi.org/10.1155/2012/569153>
- National Health Service. (2020). *Statistics on alcohol 2020*. <https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-alcohol/2020/part-1#estimated-alcohol-related-hospital-admissions-narrow-measure>
- Nielsen, S. D., Storgaard, H., Moesgaard, F., & Gluud, C. (1994). Prevalence of alcohol problems among adult somatic in-patients of a Copenhagen hospital. *Alcohol and Alcoholism (Oxford, Oxfordshire)*, 29(5), 583–590.
- Nordqvist, C., Johansson, K., Lindqvist, K., & Bendtsen, P. (2006). Attitude changes among emergency department triage staff after conducting routine alcohol screening. *Addictive Behaviors*, 31(2), 191–202. <https://doi.org/10.1016/j.addbeh.2005.04.021>
- O'Donnell, A., Abidi, L., Brown, J., Karlsson, N., Nilsen, P., Roback, K., Skagerström, J., & Thomas, K. (2018). Beliefs and attitudes about addressing alcohol consumption in health care: A population survey in England. *BMC Public Health*, 18(1), 391. <https://doi.org/10.1186/s12889-018-5275-2>
- Patston, L. L. M., Travers, K. A., & Newcombe, D. A. L. (2017). The acceptability and feasibility of screening for alcohol and drug misuse in a hospital emergency department. *Addictive Disorders & Their Treatment*, 16(3), 111–120. <https://doi.org/10.1097/ADT.000000000000108>
- Powell, B. J., Beidas, R. S., Lewis, C. C., Aarons, G. A., McMillen, J. C., Proctor, E. K., & Mandell, D. S. (2017). Methods to improve the selection and tailoring of implementation strategies. *The Journal of Behavioral Health Services & Research*, 44(2), 177–194. <https://doi.org/10.1007/s11414-015-9475-6>
- Powell, B. J., Waltz, T. J., Chinman, M. J., Damschroder, L. J., Smith, J. L., Matthieu, M. M., Proctor, E. K., & Kirchner, J. E. (2015). A refined compilation of implementation strategies: Results from the Expert Recommendations for Implementing Change (ERIC) project. *Implementation Science*, 10, 21. <https://doi.org/10.1186/s13012-015-0209-1>
- Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., Griffey, R., & Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research*, 38(2), 65–76. <https://doi.org/10.1007/s10488-010-0319-7>
- Schwarz, A.-S., Nielsen, B., & Nielsen, A. S. (2018a). Changes in profile of patients seeking alcohol treatment and treatment outcomes following policy changes. *Journal of Public Health*, 26(1), 59–67. <https://doi.org/10.1007/s10389-017-0841-0>
- Schwarz, A.-S., Nielsen, B., & Nielsen, A. S. (2018b). Lifestyle factors in somatic patients with and without potential alcohol problems. *Journal of Public Health*, 26(4), 453–459. <https://doi.org/10.1007/s10389-017-0885-1>
- Sekhon, M., Cartwright, M., & Francis, J. J. (2017). Acceptability of healthcare interventions: An overview of reviews and development of a theoretical framework. *BMC Health Services Research*, 17(1), 88. <https://doi.org/10.1186/s12913-017-2031-8>
- Shourie, S., Conigrave, K. M., Proude, E. M., Ward, J. E., Wutzke, S. E., & Haber, P. S. (2007). Pre-operative screening for excessive alcohol consumption among patients scheduled for elective surgery. *Drug and Alcohol Review*, 26(2), 119–125. <https://doi.org/10.1080/09595230601146595>
- Sivertsen, D. M., Becker, U., Andersen, O., & Kirk, J. W. (2021). An ethnographic study of unhealthy alcohol use in a Danish emergency department. *Addiction Science & Clinical Practice*, 16(1), 60. <https://doi.org/10.1186/s13722-021-00269-z>
- Tashakkori, A., & Creswell, J. W. (2007). Editorial: The new era of mixed methods. *Journal of Mixed Methods Research*, 1(1), 3–7. <https://doi.org/10.1177/2345678906293042>
- van Loon, M., Van der Mast, R. C., van der Linden, M. C., & van Gaalen, F. A. (2020). Routine alcohol screening in the ED: Unscreened patients have an increased risk for hazardous alcohol use. *Emergency Medicine Journal*, 37(4), 206–211. <https://doi.org/10.1136/emmermed-2019-208721>
- van Loon, M., van Gaalen, A. C. P., van der Linden, M. C., & Hagestein-De Bruijn, C. (2017). Evaluation of screening and brief intervention for hazardous alcohol use integrated into clinical practice in an inner-city emergency department. *European Journal of Emergency Medicine*, 24(3), 224–229. <https://doi.org/10.1097/MEJ.0000000000000320>
- Vendetti, J., Gmyrek, A., Damon, D., Singh, M., McRee, B., & Del Boca, F. (2017). Screening, brief intervention and referral to treatment (SBIRT): Implementation barriers, facilitators and model migration. *Addiction*, 112, 23–33. <https://doi.org/10.1111/add.13652>
- Venkat, A., Shank, G., Rickard-Aasen, S., Pringle, J., & Johnjulia, W. (2017). Screening, brief intervention and referral to treatment implementation in the emergency department. *The Qualitative Report*, 22(3), 745–756.
- Weiland, T. J., Dent, A. W., Phillips, G. A., & Lee, N. K. (2008). Emergency clinician-delivered screening and intervention for high-risk alcohol use: A qualitative analysis. *Emergency Medicine Australasia*, 20(2), 129–135. <https://doi.org/10.1111/j.1742-6723.2007.01002.x>

Whitty, M., Nagel, T., Ward, L., Jayaraj, R., & Kavanagh, D. (2015). Evaluation of an intervention for patients with alcohol-related injuries: Results of a mixed methods study. *Australian and New Zealand Journal of Public Health*, 39(3), 216–221. <https://doi.org/10.1111/1753-6405.12375>

Wolf, C., Curry, A., Nacht, J., & Simpson, S. A. (2020). Management of alcohol withdrawal in the emergency department: Current perspectives. *Open Access Emergency Medicine*, 12, 53–65. <https://doi.org/10.2147/OAEM.S235288>

World Health Organization. (2018). *Global status report on alcohol and health 2018*. <https://www.who.int/publications/i/item/9789241565639>

World Medical Association (2001). *World Medical Association Declaration of Helsinki. Ethical principles for medical research involving human subjects*. *Bulletin of the World Health Organization*, 79(4), 373–374.

Zierau, F., Hardt, F., Henriksen, J. H., Holm, S. S., Jørring, S., Melsen, T., & Becker, U. (2005). Validation of a self-administered modified CAGE test (CAGE-C) in a somatic hospital ward: Comparison with biochemical markers. *Scandinavian Journal of Clinical and Laboratory Investigation*, 65(7), 615–622. <https://doi.org/10.1080/00365510500333445>

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