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Norwegian midwives' use of screening for and brief interventions on alcohol use in pregnancy

Silje C. Wangberg [a,b,*]

[a] Department of Health and Society, Narvik University College, P.O. Box 385, N-8020 Narvik, Norway
[b] Regional Centre on Substance Use, University Hospital of North-Norway, Teknologiveien 10, N-8517 Narvik, Norway

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ABSTRACT

Objective: This study assessed the current screening for and brief intervention (BI) on alcohol use in pregnancy among midwives in Norway, as well as perceived barriers for such practice.
Design, setting and participants: An Internet and telephone survey was conducted among all 200 registered municipal midwives in the Norwegian health regions North, West and South in the period December 2013–May 2014. Of these, 103 midwives were reached and responded (52%).
Measurement and findings: Most of the midwives (97%) asked the pregnant women about their alcohol use at their first consultation. 42% of the midwives reported using a screening instrument. When asked which one, AUDIT or TWEAK was mentioned by 16%. The need for more training in screening tools was reported by 66%. Sixty-four percent of midwives working in municipalities that had received special training compared with 50% among the rest said that they intervened themselves if alcohol use was detected ($\chi^2 = 0.32$, $P = .645$). Motivational Interviewing was well known and frequently used. Low perceived BI competence and finding it difficult to discuss alcohol use with parents with a different ethnicity both reduced chances of carrying out a BI. Time constraints and lack of organizational support were other frequently mentioned barriers.
Key conclusions and implications for practice: It seems that the Norwegian midwives find screening and brief interventions for alcohol use to be important and part of their job, but still could use more training, stronger guidelines and more time for following up parents.

Introduction

Alcohol is one of the most dangerous substances a developing fetus can be exposed to. A high intake of alcohol during pregnancy can result in disabilities in a number of organs, forming the symptom pattern known as fetal alcohol syndrome [1]. Several large studies have established that binge prenatal alcohol exposure (≥4/5 drinks on a single occasion) is related to cognitive deficits in children [2]. The association is less clear for mild to moderate drinking while pregnant (≥0–6 drinks per week), with some studies finding a relationship with cognitive deficits and others not [2]. Flak et al.'s [2] recent meta-analysis did, however, find a significant relationship between moderate prenatal alcohol consumption and behavioral problems in high quality studies. Since no safe amount of alcohol intake in pregnancy has been established, health authorities in several countries, including Norway, recommend abstinence.

Despite this, a study of women attending ultrasound screening in Norway's largest city in 2000–2001 found that 23% of the women reported alcohol use after week 12 of pregnancy [3].

Simply asking about alcohol use can result in a reduction in consumption among pregnant women [4,5]. Burns et al. [6] reviewed five studies of seven different brief screening instruments for problem drinking during pregnancy. They concluded that further evaluation is needed, but at present the instruments T-ACE, TWEAK and AUDIT-C show promise as screening tools for risk drinking, while AUDIT-C may also be useful for detecting alcohol abuse or dependency [6]. The instruments TWEAK and AUDIT-C will be presented in more detail in the Methods section. Following up screening with a brief intervention (BI) such as motivational interviewing (MI) further increases effectiveness [4,7,8]. BIs between five and 60 minutes for alcohol use have been found effective across a variety of settings and delivered by various professions [9,10]. This also includes BI delivered by midwives to pregnant women [11,12].

Despite a great deal of research on the need for screening and BI, as well as documentation of its effects, the methods are not

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* Department of Health and Society, Narvik University College, P.O. Box 385, N-8020 Narvik, Norway. Tel.: +47 76 96 61 41.
E-mail address: siljecamilla.wangberg@hin.no.

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widely adopted by health personnel. This has again given rise to research on implementation of BI (for an overview see Ref. 14). In Norway, where the present study took place, Nygaard and colleagues [14,15] studied Norwegian GPs' use of BI on alcohol use. Of the GPs who responded to their survey, only 8% reported having used AUDIT. Most of the GPs had discussed alcohol use when the patient had shown relevant symptoms, but it does not seem that they found a more universal screening strategy useful, or saw screening as a starting point for intervention. This is also the case in other countries, and nurses have been proposed as an underutilized BI resource [13]. No studies of current practices and attitudes with regard to alcohol use in pregnancy have been conducted among Norwegian midwives.

We therefore wanted to know to what extent Norwegian midwives currently (a) screen pregnant women systematically for alcohol use and (b) follow up on alcohol use with BI. Furthermore, we wanted to assess current perceived competence with regard to these practices, attitudes toward them and perceived barriers.

Based on previous studies of BI for alcohol abuse practices among Norwegian GPs [14,15], international implementation studies [4,16,17], as well as the experience of people working with BI training in Norway, we expected to find that: (1) almost all midwives ask pregnant women about their alcohol use, but rarely ask fathers-to-be, (2) even though screening is performed, the link to intervention is weak, (3) perceived competence is an important predictor of BI, and (4) important barriers toward BI practices include: (a) low perceived competence in performing interventions, (b) resource allocation conflicts, (c) low integration of care, i.e. low perceived access to specialized care, and (d) perceived challenges related to languages and ethnicities other than Norwegian.

Methods

Participants and procedure

This study recruited municipal midwives from three of the five health regions in Norway: North, South and West. The respective regional centers on substance use (RCSU) collected up-to-date contact information on all the municipal midwives in their region and were able to give them information about the survey at the same time. This resulted in a list of 200 midwives.

The survey was conducted in the period December 2013–May 2014. An external poll agency sent out e-mails with an invitation to participate in and information about the survey, along with a hyperlink to an electronic questionnaire. In many of the municipalities the midwives are hired part-time from the local hospital, so their municipal time is limited, and they can be hard to reach. We therefore allowed two weeks' response time with two email reminders. Those who had not responded by then were called for a computer-assisted telephone interview.

Questionnaire

The questionnaire was partly based on that of Nygaard and colleagues [15] used in the context of GPs' use of BI, but we adapted the wording of some items for our target group. We also added some suggestions for relevant perceived barriers based on literature review and input from implementation teams and members of the target group. The questions were grouped into: (1) the frequency of use of screening tools and different follow-up methods, (2) attitudes toward and expected consequences of using such tools, (3) consequences experienced in using these tools, and (4) barriers experienced in relation to adopting BI practices. Most of the questions involved ranking on a five-point Likert scale from 1 = never/strongly disagree to 5 = always/completely agree, but we also asked some open questions about current practices and barriers to screening and BIs.

Ongoing training program: Early In

The Norwegian directorate of health, in cooperation with the Norwegian directorate for children and family affairs, launched a national primary care educational program for early interventions in 2010 – Early In. As part of this, municipal midwives are offered two days of training in alcohol-related harms in pregnancy, screening with TWEAK and AUDIT-C and following up the screening with MI. Furthermore, the participating municipalities arrange for a minimum of two hours per month of supervision in groups. The RCSUs provided information about which municipalities had completed the training at the time of the survey.

The screening and brief intervention methods in Early In

The Alcohol Use Disorders Identification Test (AUDIT) was developed in a WHO collaborative project some 20 years ago [18] and has been extensively used and researched since. AUDIT includes three questions about consumption: (1) the frequency of drinking, (2) the amount of alcohol on a typical drinking occasion, and (3) the frequency of binge drinking. These three questions form a brief screening called AUDIT-C [19]. TWEAK asks more directly about indicators of alcohol-related problems: T(olerance – how many drinks can you have before feeling intoxicated); W(orry– have close friends or relatives worried or complained about your drinking); E(ye-opener – do you sometimes have a drink first thing in the morning); A(mnesia – have you ever done things while drinking that you cannot remember later); and K(ut-down – have you ever considered cutting down on your drinking) [20]. Motivational interviewing (MI) is a person-centered strategic counseling method aimed at facilitating change [21].

Analyses

We had no missing responses on the quantitative variables. "I don't know" or "Not applicable" responses ranged from 0% to 23% across the variables. On the question about having performed a BI, eight (8%) had responded "Not applicable" and these were omitted from the logistic regression.

To assess perceived BI competence, the midwives were asked to consider the statement: "I lack competence in intervening on parents' alcohol-related problems" on a five-point scale from "completely disagree" to "completely agree". Before the analysis, this variable was dichotomized by recoding the two disagree response alternatives into "high perceived competence" and the two agree alternatives into "low perceived competence". The eight respondents who had answered in the middle of the scale were left out of the analysis.

The statistical significance of group differences was tested using chi-square. To find predictors for screening and BI, logistic regressions were performed with 13 statements about attitudes, perceived competence and other barriers as independent variables. The Wald backward stepwise procedure was used to retain the predictors in the final models. All analyses were performed with IBM SPSS 21.0.

Results

Of the 200 contacted midwives, 103 (52%) completed the survey. As expected, it was more difficult to get in contact with the municipal midwives than to get them to participate in the study. About half the survey hyperlinks were never clicked, and about half the phone calls were never answered. The survey questionnaire was opened 494 times, and 98 (20%) of those times the page was left before the questionnaire was completed. Of the 311 phone calls that were