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EXPLORING MEN'S ALCOHOL CONSUMPTION IN THE CONTEXT OF BECOMING A FATHER

A scoping review







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We recognise and value that families come in all forms. There are multiple ways to become a parent, and parents are not only mothers or fathers (whether biological or not) but anyone who is involved in raising children. This is in line with the definition of parents, used in the Scottish Government's National Parenting Strategy (2012).

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Executive summary

Background and aim

The transition to fatherhood may present a 'teachable moment' when men evaluate their health, modify existing health behaviours and adopt new ones. This scoping review synthesises evidence on men's experiences of alcohol consumption in the context of fatherhood, and on the effectiveness of existing interventions to reduce drinking among new fathers.

Findings

The review identified five articles published in peer-reviewed journals, and one protocol. Three qualitative studies explored fathers' experiences of alcohol consumption, two studies reported interventions to reduce alcohol consumption in new fathers, and one was a protocol for an intervention.

The qualitative studies suggest that men may reduce their drinking to support their pregnant partner. However, men's alcohol consumption beyond this narrow focus is rarely explored. Only one study explored in depth men's views of problematic drinking during fatherhood and found that men believed that fathers should be a role model for their children.

The review identified two interventions, and only one showed significant reduction in alcohol use among fathers. This was a smoking intervention which did not address alcohol directly. The study suggests that couple-based interventions may be effective in addressing health behaviours.

This scoping review suggests that text message interventions may offer a promising avenue for engaging with men but their effectiveness in addressing alcohol use in new and expectant fathers is unclear.

This review found that it is feasible to recruit expectant and new fathers through antenatal clinics, hospitals and other venues where fathers may go (e.g. antenatal classes), and through men's pregnant partners.

Implications

The findings have implications for researchers and health practitioners, as insufficient understanding of new fathers' experiences of alcohol use may result in missed opportunities to address hazardous and harmful drinking among men during the transition to fatherhood.

Introduction

The transition to parenthood represents a time of considerable change. Pregnancy and becoming a mother may encourage some women to adopt healthy behaviours (McBride et al., 2003), and research has focused on producing guidelines and creating interventions to help women reduce and quit drinking alcohol during pregnancy (Stade et al., 2009; Gilinsky et al., 2011; Schölin et al., 2019). However, little is known about alcohol consumption among expectant and new fathers. Research suggests that when men drink during pregnancy, this may increase the likelihood of their partner also drinking and negatively affect relationship quality (Desrosiers et al., 2015; McBride & Johnson, 2016).

The transition to fatherhood may present a 'teachable moment' when men's priorities change from 'public friendships' and spending time with friends to 'settling down', spending more time with their family and becoming a good role model for their child (Eggebeen et al., 2010; Garfield et al., 2010). Previous research shows that new fathers often evaluate their health behaviours, modify existing behaviours and adopt new ones (e.g. increase in physical activity; decrease in risky behaviours) (Garfield et al., 2010; Olsson et al., 2010; Bodin et al., 2017). Studies also suggest that parents (including fathers) with dependent children drink less frequently than non-parents (Paradis, 2011). This could be due to life responsibilities (Emslie et al., 2012) and changes in the contexts where parents drink (Paradis, 2011; Brierley-Jones et al., 2014). For example, in a qualitative study among middle-aged Scottish adults, Emslie et al. (2012) found that fathers (and mothers) reported changing their drinking patterns to accommodate parenting responsibilities, such as caring for children early in the morning. Parenthood may also be associated with a reduction in heavy drinking as the context of parents' drinking changes. This may be due to reduction of drinking occasions at bars and at friends' homes, particularly for fathers (Paradis, 2011).

However, many fathers continue to drink during and after pregnancy (Everett et al., 2007; Bailey et al., 2008; Högberg et al., 2016; McBride & Johnson, 2016). For example, Condon et al. (2004) found that 27.7% of men in their study were classified as 'at risk', according to their AUDIT score (which screens for hazardous drinking and alcohol dependence), during their partner's pregnancy, reducing to 25% after the baby was born.

For some men, the stress of becoming a father and the need to manage competing social demands may present barriers to positive behaviour change. Instead, drinking and smoking, may become forms of 'hedonistic' escape (Robertson, 2007; Williams, 2007). For example, men in one study reported smoking to help regulate emotional reactions to the pressures of work, fathering responsibilities, and a desire to maintain personal relationships (Kwon et al., 2014). In a qualitative study with parents of children aged 10 or younger, Wolf et al. (2015) found that fathers often drink to relax, although they need to constantly negotiate this need with parenting responsibilities. Another explanation could be that behaviours, such as drinking and smoking, are used to construct men's identities (Emslie et al 2013; Kwon et al 2015). For example, there is evidence that new fathers use smoking to help them manage their identity as a father (Oliffe et al., 2010) and that some fathers perceive smoking as a core element of their masculinity (Flemming et al 2015).

For example, Gordon et al. (2013) examined the relationship between traditional masculine norms

('status,' 'toughness' and 'anti-femininity'), substance use, and healthy behaviours among young men transitioning to fatherhood. They found that young men who endorsed the idea that a man is to be emotionally, physically, and mentally tough may engage in health undermining behaviours. However, the masculine norm 'status' was protective against substance use and related to the adoption of healthy behaviours (Gordon et al., 2013).

Therefore, it remains unclear how men 'experience' alcohol consumption in the context of fatherhood and whether they use alcohol to manage social demands and maintain certain identities. Understanding if and how men's drinking changes when they become fathers can inform interventions and guide best practice on supporting new fathers to reduce hazardous alcohol consumption. If pregnancy is a 'teachable moment' for fathers then alcohol interventions could be delivered during this time in order to capitalise on men's increased motivation to adopt healthy behaviours, support their partners and care for their children. Reducing/quitting alcohol consumption in the pre- and post-natal period is likely to have benefits for men, their partners and children.

This scoping review synthesises evidence on the impact of becoming a father on men's alcohol consumption and on the effectiveness of existing interventions to reduce drinking among new fathers. The review aims to answer the following questions:

- 1. What are men's experiences of alcohol consumption in the context of becoming a father?
- 2. What are the key characteristics of existing interventions to target alcohol consumption in new fathers?
- 3. What are the best ways to engage with new fathers in relation to reducing alcohol-related harm?

Methods

This scoping review examines the range and nature of research evidence on men's alcohol consumption in the context of becoming a father. A scoping review is suitable for this topic as it examines the extent and nature of research activity in a particular field and is particularly appropriate when the research questions are broad and where studies of different designs are included (Arksey & O'Malley, 2005), as is the case for this review (i.e. qualitative studies exploring men's experiences of drinking and interventions aiming to reduce alcohol consumption in new fathers). A six stage framework for scoping reviews (Arksey & O'Malley, 2005; Levac et al., 2010) was used to ensure the review was undertaken in a rigorous and transparent manner: 1) Identifying the research question; 2) Identifying relevant studies; 3) Study selection; 4) Charting the data; 5) Collating, summarising and reporting the results; 6) Seeking views and contributions of stakeholders. The review is reported following PRISMA guidelines for scoping reviews (Tricco et al., 2018).

Protocol and registration

The protocol for this scoping review is registered on the FigShare database (Dimova et al., 2020).

Eligibility criteria

The review includes studies that report on new fathers' experiences of alcohol consumption or the feasibility/effectiveness of an intervention to address alcohol consumption in new fathers. For the purpose of this review, alcohol consumption refers to any drinking behaviour, including (but not limited to) moderate drinking, heavy episodic drinking, hazardous drinking and alcohol dependence. We use 'new fathers' to refer to those expecting a child or whose youngest child is up to 24 months old. Eligible interventions could take a psychosocial, behavioural or medical approach to address alcohol consumption. Studies that focused on both parents were included only if they reported information on fathers separately. Grey literature, such as newspaper articles and opinion pieces, was excluded. However, unpublished reports were deemed relevant in order to reduce the risk of publication bias in the review (Hopewell et al., 2007). Conference proceedings and study protocols were also deemed eligible for inclusion as they provide important information about ongoing studies. Only studies in English were included due to time and financial restraints.

Information sources

The following electronic databases were systematically searched: Medline, CINAHL, Web of Science, PsychInfo. Reference lists of included articles were hand searched to identify any relevant studies that may have been omitted by the databases search.

Search

Databases were searched from inception until November 2020. A comprehensive search strategy was developed and adapted for each database, by combining key terms for (a) pregnancy, b) fathers and (c) alcohol, and Boolean operators. We consulted previous literature to identify search terms, relating to expectant and new fathers (Poh et al., 2014; Baldwin et al., 2017; Holopainen et al., 2019). No search limits were applied. An example search strategy is presented in Table 1. The

primary author ran the search strategy and collated all identified articles in Microsoft Excel.

Selection of sources of evidence

All results, identified in the databases search, were collated and duplicates removed. After this, the titles and abstracts of the articles were independently screened by two reviewers (ED, JM). They marked the selection as 'include', 'exclude' or 'unclear' on the basis of the inclusion criteria. After this, the full text of all articles marked as 'include' or 'unclear' was obtained and screened independently by the two reviewers to ensure articles met the inclusion criteria. Discrepancies were resolved through discussion.

Data charting process

A data extraction tool, informed by The Joanna Briggs Institute (2020), was developed for this review in order to create a descriptive summary of the results and address the review aims. Data were extracted into Microsoft Excel in order to produce evidence tables of included studies. One table presents key information from studies on new fathers' experiences of alcohol consumption and another on interventions to reduce alcohol consumption in new fathers. Data extraction was done by one reviewer (ED) and double checked by another (JM).

Data items

We extracted data on: study information (i.e. author, year, country), aim, methods, population, participant recruitment and eligibility criteria, data collection (for qualitative studies), key findings (for qualitative studies), intervention information (for intervention studies, e.g. theory, components, duration), alcohol measures (for intervention studies) and alcohol outcomes (for intervention studies).

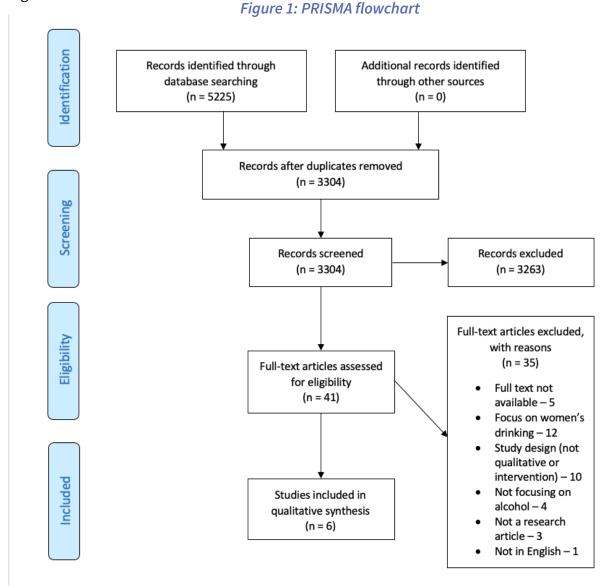
Synthesis of results

The extracted information from included studies was brought together in a narrative summary, and organised around the research questions.

Results

Selection of sources of evidence

The databases yielded 5,225 results. After duplicates were removed, the titles and abstracts of 3,304 articles were independently screened by two reviewers (ED, JM). The full text of 41 articles was screened. The review includes five articles, published in peer-reviewed journals, and one protocol. Three of the studies explored fathers' experiences of alcohol consumption, two reported on interventions and one is a protocol for an intervention to reduce alcohol consumption in new fathers. The study selection process is reported using the PRISMA flowchart (Moher et al., 2009) in Figure 1.



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Characteristics of sources of evidence

Men's experiences of alcohol in the context of fatherhood

Study description

Three studies explored views and experiences of drinking among the male partners of pregnant women (Benoit & Magnus, 2017; Crawford-Williams et al., 2015; van der Wulp et al., 2013). The studies were conducted in Australia (Crawford-Williams et al., 2015), Canada (Benoit & Magners, 2017) and the Netherlands (van der Wulp et al., 2013). The studies aimed to explore knowledge of the effects of alcohol use in pregnancy among pregnant and newly delivered women and their partners (Crawford-Williams et al., 2015), the place of fathers in discourses about problematic substance use during the perinatal period (Benoit & Magners, 2017), and information women and partners receive about alcohol in pregnancy (van der Wulp et al., 2013).

Study population

The participants in each study comprised four expectant or new fathers (Crawford-Williams et al., 2015), nine expectant fathers (van der Wulp et al., 2013) and eight men who reported being in a committed relationship with the mother of their youngest (or unborn) child (Benoit & Magnus, 2017). Van der Wulp et al. (2013) failed to provide socio-demographic information, and Crawford-Williams et al. (2015) reported that all men were Caucasian and either from Australia or New Zealand. Benoit and Magnus (2017) provided more detailed information about their study population. Six of the eight men in their study self-identified as Indigenous (First Nations, Métis or Inuit) and their median age was 26 years. Two of the eight fathers reported being employed, four were currently in receipt of income assistance, and one father reported being homeless (Benoit & Magnus, 2017).

Recruitment

Participants in all three studies were recruited through posters/flyers in venues, attended by expectant and new parents (e.g. health and social services, women's and children's hospital, midwife practice, pregnancy courses, antenatal classes) (van der Wulp et al., 2013; Crawford-Williams et al., 2015; Benoit & Magnus, 2017).

Eligibility criteria were not reported in two studies (van der Wulp et al., 2013; Crawford-Williams et al., 2015). Benoit and Magnus (2017) recruited participants who met the following criteria: 19 years of age or older, affected by substance use either directly or indirectly, low income or insecure housing, and had a pregnant partner, or had a baby in the last 12 months.

Data collection

In two studies, questions were not specifically directed at fathers as the studies involved both mothers and fathers. These explored personal definitions of problematic substance use during pregnancy and early parenting, in addition to questions around participants' living situation, experiences with healthcare services (Benoit & Magnus, 2017) and discussions around the negative consequences of drinking during pregnancy, sources of information about alcohol use in pregnancy and the availability of reliable health information (Crawford-Williams et al., 2015).

Van der Wulp et al. (2013) asked men about their pregnant partner's alcohol use, whether they have discussed this with their partner, and their views and experiences of information on alcohol consumption during pregnancy.

<u>Interventions to address alcohol consumption in new fathers</u>

Study description

The review includes three studies reporting on interventions to reduce alcohol use among new and expectant fathers (Noonan et al., 2016; Robinson et al., 2017; Fletcher et al., 2018). This comprises one randomised controlled trial (RCT) examining whether a smoking cessation intervention had unintended effects on binge drinking among new fathers in the USA (Noonan et al., 2016), one developmental study (a text-based intervention informing men about the benefits of reducing risky drinking during the transition to fatherhood in Australia; Robinson et al., 2017) and one protocol for an RCT, proposing a text based intervention with expectant fathers in Australia (Fletcher et al., 2018).

Study population

Robinson et al.'s (2017) study included 51 men (49 current fathers and two expectant fathers). Most of these men (n=44) were married or in a *de facto* relationship. The majority (n=38) were between the ages of 36 and 50 years. Finally, almost all of them (n=50) were employed and 39 had university education.

Noonan et al.'s (2016) study included 348 men with a mean age of 30 years; half (49%) were White and 46% reported being of more than one race. Two thirds (66%) reported education below secondary level. Perceived financial burden was also measured: 38% of men reported having difficulty paying their bills, 42% indicated having enough money to pay the bills but little spare, 15% had enough money to pay the bills but had to cut back on other things, and only 5% had enough money for special things.

Recruitment

Robinson et al. (2017) recruited participants via social media and inclusion criteria were: current or expectant Australian fathers who have ever consumed alcohol, and who have access to the Internet. Participants in the other study were recruited through clinics (Noonan et al., 2016) and had to meet certain criteria for smoking (as this was a smoking cessation intervention and alcohol was a secondary outcome). Fletcher et al. (2018) plan to recruit 800 expectant and new fathers through a study-specific website, that men will be made aware of through media outlets, including social media and flyers distributed by health staff. The inclusion criteria will be men who have a partner who is more than 16 weeks pregnant or their infant is less than 12 weeks of age, have a mobile phone capable of receiving text messages, and are able to read and understand English (Fletcher et al., 2018).

Alcohol measures

Noonan et al. (2016) measured binge drinking in the past 30 days by asking men how many days a week they had an alcoholic beverage, and then asking men who drank one or more days a week, to

report the number of drinks they had each day. Those who indicated having five or more drinks a day were considered to be 'binge' drinkers. Robinson et al. (2017) used the AUDIT C (which screens for hazardous drinking and alcohol dependence) and also asked fathers to rate the importance and difficulty (using a Likert scale) of following the Australian alcohol guidelines. Fletcher et al. (2018) plan to measure alcohol outcomes using the AUDIT C.

Alcohol outcomes and intervention effectiveness

Robinson et al. (2017) describe the development and piloting of 30 text messages to inform men about the benefits of reducing risky drinking during the transition to fatherhood. They asked fathers to rate the text messages for message importance and likelihood of seeking further information. Participants attributed higher importance to messages in a child voice compared to those in a second person voice. However, fathers gave similar ratings of likelihood of pursuing information between child voice and second person voice. In sub-group analysis, the authors found that men who consumed alcohol at high-risk levels rated importance of drinking to recommended guidelines as less important but also more difficult to adhere to, compared to those who drank at low-risk levels. The qualitative component of the study found that most fathers responded positively to the text messages and reported that messages that directly connected their behaviour with their child's health and emotional wellbeing had a greater impact than the messages about their own health (Robinson et al., 2017). However, some men viewed these messages as manipulative. Finally, the study found that ex-drinkers and risky drinkers indicated a preference for strongly worded alcohol messages (Robinson et al., 2017).

The men in Noonan et al.'s (2016) study, who received the couples-based intervention, were less likely to report binge drinking at 12 months compared to those in the control arm. In addition, men who quit smoking reported less binge drinking compared to non-quitters.

Fletcher et al. (2018) predict that alcohol use (based on the AUDIT C) will be lower among men who receive the SMS4dads intervention, compared to those who receive the comparison SMS4health intervention.

Results of individual sources of evidence

The extracted information from included studies is presented in Tables 2 and 3.

Synthesis of results

What are men's experiences of alcohol consumption in the context of becoming a father?

This review highlights the scarcity of qualitative research exploring men's experiences of alcohol consumption in the transition to fatherhood. Only one of the included studies explored fathers' experiences in depth and it focused on problematic substance use (including drugs).

Motives for reducing

There is very limited information exploring men's motives for reducing drinking during pregnancy or in the postnatal period.

Fathers in two studies reported reducing their alcohol consumption during pregnancy to show support for their partner (van der Wulp et al., 2013; Crawford-Williams et al., 2015). Some men reduced their drinking because they missed their spouse as a drinking companion (van der Wulp et al., 2013). Becoming a father was also reported as a reason for reducing drinking among men (Benoit & Magnus, 2017). The men in this study believed that fathers' alcohol (and other substance) use can be as harmful for the baby as that of the mother, although they acknowledged that fathers were not held to the same degree of responsibility in relation to abstinence as mothers (Benoit & Magnus, 2017). Men in the study talked about the 'provider' ideals and how substance use can interfere with parenting in both financial and emotional ways. For example, substance use was perceived to become problematic when money for substances 'is coming out of your child's mouth' (Benoit & Magnus, 2017, p. 388). Similarly, substance use could affect emotional support when time for consumption 'is coming out of the time being spent with your baby.' (Benoit & Magnus, p. 388). Respondents discussed perceiving themselves as role models for their children (Benoit & Magnus, 2017). This was viewed as particularly necessary for breaking the cycle of socioeconomic disadvantage as one man in the study said that he would not want his child to follow his path or go to prison (Benoit & Magnus, 2017). Participants in Benoit & Magnus' (2017) study also talked about domestic violence as an example of substance-related harm and the majority of participants said that safety needs to be a prerequisite for the inclusion of fathers in family life. One man in the study, who identified as indigenous, shared that he becomes aggressive when drinking and believed this is linked to his ethnicity.

Knowledge of alcohol and pregnancy

Only one study in this review explored (expectant) fathers' knowledge of the effects of alcohol use during pregnancy on babies (Crawford-Williams et al., 2015). Although most participants (women and their partners) acknowledged that alcohol has the potential to cause harm to the unborn baby, the quantity of alcohol needed to cause harm, and the impact of the timing of the exposure were not well known. Many participants believed that alcohol consumption by the mother in the first trimester would cause harm but a small amount of alcohol throughout the pregnancy was not perceived as harmful for the baby. One man in the study reported knowing women who drink 'a glass of wine' while pregnant and believed this can 'calm the mother's mood' and have benefits for the baby (Crawford-Williams et al., 2015, p. 5).

Support for decreased drinking

Benoit & Magnus (2017) found that agreement to abstain from alcohol was mostly viewed as the mother's decision rather than a mutual decision. Some respondents reported their partners gave them an ultimatum to stop drinking or lose their family, although there were examples where the pregnant woman supported the man to quit drinking (Benoit & Magnus, 2017). Finally, van der Wulp et al. (2013) found that men reported websites about pregnancy were not suited for expectant fathers as they contain pink colours and pictures of pregnant women. Similarly, fathers in Benoit and Magnus' (2017) study reported feeling uncomfortable in parenting groups.

What are the key characteristics of existing interventions to target alcohol consumption in new fathers?

Given the limited evidence on interventions to target alcohol consumption in new fathers, this scoping review cannot identify key characteristics of successful interventions. However, we provide the characteristics of included interventions below.

Only one intervention was identified which assessed effectiveness. Noonan et al.'s (2016) intervention was couples-based and included a booklet guide on quitting smoking, free nicotine replacement therapy (NRT) for six weeks, three face-to-face counselling sessions during pregnancy, and three sessions postpartum (one face-to-face and two over the phone). The intervention did not focus on alcohol consumption, as this was a secondary outcome. The face-to-face counselling session was conducted in the participants' home and focused on emotions (e.g. pride, responsibility) and discussion about the health effects of smoking. A male counsellor worked with the father to build motivation and set goals around quitting smoking, and a female counsellor worked with the mother to promote healthy eating and activity goals. The counsellors also helped the couple to develop effective communications skills and support each other in reaching their goals. The phone counselling sessions focused on reviewing progress towards smoking cessation and practising communication skills.

Robinson et al.'s (2017) intervention did not assess effectiveness. Their intervention included 30 text messages (limited to 160 characters), which were based on Australia's drinking guidelines, and addressed alcohol-related harms in relation to infant health, the spousal relationship, father-infant relationship and the fathers' health. The intervention was informed by theory, using motivational interviewing (MI) and the Stages of Change model. The messages were presented either from a child's voice, as if the child is addressing their father (e.g. 'Hey dad, do you know how many drinks you can have before it affects your health?') or from a second person voice (e.g. 'Do you know how many drinks you can have before it affects your health?').

In the intervention, proposed by Fletcher et al. (2018), the messages were developed through consultation with parents, academics and practitioners. A father who takes part in the full 77-week intervention will receive 294 messages, 25 of which focus on alcohol, but their content is not reported by Fletcher et al. (2018). The messages are timed according the babies' expected or actual date of birth, so the issues they address are likely to be relevant for the father. The messages aim to engage with fathers through humour, use of the baby's voice, and an encouraging, non-judgmental tone.

What are the best ways to engage with new fathers in relation to reducing alcohol-related harm?

The limited number of studies identified by this review suggests that it is feasible to recruit expectant and new fathers through antenatal clinics, hospitals and other venues where fathers may go (e.g. antenatal classes, pregnancy courses). Potentially successful approaches could include the use of posters/flyers, recommendations through gatekeepers (e.g. midwives, nurses), and by directly approaching men after gatekeeper approval is obtained (van der Wulp et al., 2013; Crawford-Williams et al., 2015; Noonan et al., 2016; Benoit & Magnus, 2017). Social media is another potentially successful avenue for engaging expectant and new fathers (Robinson et al., 2017; Fletcher et al., 2018). However, only one of the studies in this review provided sufficient information to determine how successful different approaches are (Noonan et al., 2016). The study presents secondary analysis from a smoking cessation trial, where the researchers approached 555 men, of which 411 agreed to participate (Pollack et al., 2015). This suggests that contacting partners of pregnant women directly (after agreement from the pregnant woman) can be a successful approach to engaging fathers.

Stakeholder involvement

The review findings and their implications were discussed in a stakeholder meeting, attended by representatives from third sector organisations that work with fathers and families, and academics with extensive experience in gender-based interventions and research focusing on fathers. The key points from the stakeholder discussion informed the discussion section of this report.

Discussion

This is the first scoping review to bring together evidence on the impact of becoming a father on men's alcohol consumption and on the effectiveness of existing interventions to reduce drinking among new fathers. We found only three studies that explored fathers' experiences of alcohol consumption, two that reported on interventions to reduce alcohol consumption in new fathers (only one of which assessed effectiveness) and one protocol for an intervention. The review highlights the almost complete absence of new fathers' voices in relation to experiences of alcohol use and effectiveness of interventions to support new fathers to reduce alcohol consumption. This is in line with the findings of a previous scoping review, which points to the invisibility of fathers in studies of psychosocial interventions for substance-abusing parents (Heimdahl, 2016).

What are men's experiences of alcohol consumption in the context of becoming a father?

Overall, there is lack of qualitative research that explores expectant and new fathers' experiences of alcohol use during and after pregnancy. While screening for eligible studies for this review, we did identify studies that qualitatively explored parents' experiences of alcohol consumption, but the majority focused on women and those that included men highlighted the role of fathers in helping women to stop drinking (Balachova et al., 2007; Edvardsson et al., 2011; Hammer, 2019). The experiences of fathers have been largely neglected in alcohol research. Although three qualitative studies met the inclusion criteria for this review, two of these did not explore in any depth men's views on how becoming a father affected their drinking. They suggest that men may reduce alcohol consumption in order to support their pregnant partner (van der Wulp et al., 2013; Crawford-Williams et al., 2015). Only one study in this review explored men's views of problematic drinking during fatherhood (Benoit & Magnus, 2017). Men believed that a father should be a role model for their children and problematic substance use should not interfere with parenting. This resonates with a study, not included in this review, which found that parents' narratives around alcohol use focus on not setting a bad example or putting children in danger (Wolf & Chávez, 2015). Parents in Wolf and Chávez's (2015) study managed these perceived risks in relation to social context. Some parents believed drinking outside the home is riskier because of the need to drive, while others perceived drinking at home to be riskier as it sets a bad example for their children (Wolf & Chávez, 2015). A key finding from Benoit and Magnus' (2017) study was that fathers believed that their substance use can be as harmful to the baby as that of the mother (Benoit & Magnus, 2017). However, participants had low incomes and were affected by any substance use (not necessarily alcohol), so these findings may not be applicable to all fathers in the general population.

The qualitative studies in this scoping review also show that fathers may find antenatal websites to be tailored specifically for women (Van der Wulp et al., 2013; Crawford-Williams et al., 2015) and may feel uncomfortable in parenting classes (Benoit & Magnus, 2017). This resonates with recent work by Miller & Nash (2017), who conducted qualitative longitudinal studies to explore the experiences of fathers in the UK and Australia during the antenatal and postnatal periods (up to two years after birth). Men in the UK attended couple-based antenatal classes and reported feeling uncertain and out of place as they felt the classes were tailored for the mothers (Miller & Nash, 2017). Australian men, who attended all-male classes felt more secure, especially when the midwife was male. However, some of the participants believed that outdated male stereotypes (e.g. men's drinking, watching/doing sports, etc.) were drawn upon both by other participants and the instructor (Miller & Nash, 2017). A recent qualitative study in Australia also found that beliefs

about gender roles and perceptions that interventions are mother-focused can act as barriers to fathers participating in parenting interventions (Sicouri et al., 2018).

What are the key characteristics of existing interventions to target alcohol consumption in new fathers?

Paternal alcohol consumption can have negative effects on foetal and infant health outcomes, and on maternal alcohol consumption during pregnancy (Desrosiers et al., 2015; McBride & Johnson, 2016; Kerr et al., 2012). Despite this, there is a clear lack of interventions designed to address alcohol use during the transition to fatherhood. The current review identified only one intervention that assessed effectiveness. This was a smoking cessation intervention, which had an unintended impact on binge drinking and led to a significant decrease in binge drinking among fathers (Noonan et al., 2016). The study by Noonan et al. (2016) suggests that involving both members of the couple in an intervention and emphasizing communication skills are important for intervention effectiveness. This is not surprising given the strong support in the literature for Behavioural Couples Therapy to reduce drinking and increase relationship functioning (McCrady et al., 2019). The utility of family-based interventions has been previously demonstrated in the field of smoking. For example, Chan et al. (2017) compared a family-based intervention, that included six nurse-led individual face-to-face and phone counselling sessions and a voluntary face-to-face family session, to a control intervention of brief advice, leaflet and a self-help booklet. The participants were a daily-smoking father and a non-smoking mother, with a child aged 18 months or younger. Chan et al. (2017) found that compared to the control group, fathers in the intervention group reported greater prevalence of seven-day and six-month self-reported smoking abstinence, which was higher in participants who engaged with the family session. The potential of family-based interventions to address multiple risk behaviours, such as hazardous drinking and smoking, needs to be explored further.

This scoping review suggests that text message interventions may offer a promising avenue for engaging men, as Robinson et al. (2017) found their intervention to be feasible and well-accepted by fathers. The acceptability and potential effectiveness of the intervention proposed by Fletcher et al. (2018) has also been previously explored. In a pilot study, Fletcher et al. (2016) found that the proposed intervention has good acceptability and fathers found the content helpful. However, they do not report on the acceptability of text messages that focus on alcohol specifically. In a subsequent analysis, Fletcher et al. (2019) distinguished two mechanisms, structural and psychological, that can explain the potential effectiveness of the proposed intervention. The authors suggest that the intervention would contribute towards a smooth transition to fatherhood, by providing fathers with knowledge and preparation, while also normalising reflections on mood and mental health (Fletcher et al., 2019). The utility of text message interventions to reduce alcoholrelated harm among men has previously been demonstrated (Crombie et al., 2017; Crombie et al., 2018) and there is clear evidence that text message interventions can promote healthy behaviours among pregnant women (Balci & Kadioglu, 2018). The intervention, proposed by Fletcher et al. (2018) in their protocol, includes text messages in a child's voice, which aim to create a virtual conversation between the father and the baby, thus promoting father involvement. The use of virtual conversation in the form of a narrative has strong potential to increase engagement and reduce resistance to change (Miller-Day et al., 2013; Murphy et al., 2013). For example, Crombie et al. (2018) found high engagement in an alcohol-reduction text message intervention among men, living in disadvantaged areas in Scotland. The text messages were embedded in a humorous narrative that followed the journey of a man who gradually reduces drinking (Crombie et al., 2018).

The character encounters difficulties, and models key behaviour change techniques, such as goal setting and action planning (Crombie et al., 2018).

What are the best ways to engage with new fathers in relation to reducing alcohol-related harm?

The scoping review suggests it is feasible to recruit expectant and new fathers through antenatal clinics, hospitals and other venues where fathers may go (e.g. antenatal classes) (van der Wulp et al., 2013; Crawford-Williams et al., 2015; Noonan et al., 2016; Benoit & Magnus, 2017). However, given low participation of fathers in parenting interventions (Burgess, 2009; Andreson et al., 2014), more tailored approaches need to be adopted, especially ones that can reach specific groups, such as separated fathers (Burgess, 2009).

Social media can also be a successful way to engage expectant and new fathers (Robinson et al., 2017; Fletcher et al., 2018). A recent study investigating methods to improving men's recruitment to health behaviour research found that vibrant images and concise captions via Facebook increased engagement of men (Ryan at al., 2019). The study also found that asking women to invite men increased male participation (Ryan et al., 2019). This resonates with the findings from Noonan et al. (2016) and Pollack et al. (2015) who found that contacting partners of pregnant women directly (after agreement from the pregnant woman) can be a successful approach to engaging fathers. However, this needs to be done carefully because viewing mothers as 'gatekeepers' may also act as a barrier to fathers' engagement with parenting interventions (Sicouri et al., 2018).

Gaps in previous research

This review highlights the need for more research to explore men's experiences of alcohol consumption in the context of becoming a father. The lack of qualitative research and insufficient understanding of new fathers' experiences of alcohol use may result in missed opportunities to address hazardous and harmful drinking among men during an important period of transition into fatherhood. Longitudinal qualitative studies could provide an in-depth understanding of men's transition into fatherhood. For example, Miller et al. (2011) found that while equality and sharing care for the baby are anticipated in the postnatal period, return to paid work disrupts these intentions and results in fathers trying to incorporate caring practices into evenings and weekends. Managing work pressures and fathering responsibilities may also compromise men's intention to adopt and maintain healthy behaviours (Gordon et al., 2013; Flemming et al., 2015; Kwon et al 2015). Future qualitative research should explore the perspectives of fathers in relation to alcohol consumption as well as the social context of their drinking, at different time points following the birth of the baby.

Qualitative research exploring fathers' experiences of alcohol consumption also needs to include a diverse sample in terms of age and whether the participants are first-time fathers. Previous research suggests that younger fathers and first-time fathers may be more likely to make lifestyle adjustments (Bodin, 2017). In addition, having a planned pregnancy may also be an important factor influencing men's health behaviours. Shawe (2019) found that men who indicated a planned pregnancy were significantly more likely to reduce alcohol consumption and adopt other health behaviours (e.g. healthy eating, reduce or stop smoking).

Future research also needs to explore successful strategies to engage with new fathers. Recruitment

through antenatal classes and through women as gatekeepers may be effective but may also result in the exclusion of specific groups of men. Social media may provide a promising way to engage with men. However, in order to understand how successful specific recruitment strategies are, future studies need to provide information on non-responders.

Antenatal information needs to be father-friendly as being given information has been shown to have a significant positive effect on reducing alcohol consumption among men (Shawe et al., 2019). More research is needed to inform the content and form of presentation for information targeting new fathers.

Finally, there is a need for interventions to support new fathers to reduce their alcohol consumption. Although text message interventions may be a cost-effective way to reduce drinking, their components, acceptability, and effectiveness among new fathers remain largely unexplored.

Implications

The findings of this review have implications for families, health professionals, and policy makers. Parenting interventions offer a promising avenue for promotion of healthy behaviours. However, the majority of global parenting interventions marginalise fathers (Panter-Brick et al., 2014) and fathers often feel excluded and inadequate when engaging with health visiting services (Menzies, 2019). An important step towards creating father-friendly services is to ensure antenatal services signal fathers' involvement. A recent series of interventions found that inclusion of environmental cues, such as men's magazines and pictures of fathers, increased intentions and confidence in men to be involved as fathers and to engage in health behaviours (Albuja et al., 2019). In addition, Menzies (2019) recommends that health professionals need to link the birth transition to fatherhood, rather than simply preparing men to support their partners. Such conversations can offer an excellent opportunity to address men's health behaviours, such as smoking and alcohol consumption. In a survey among men in England, Shawe et al. (2019) found that men who receive preconception information may be more likely to reduce drinking and smoking, and adopt a healthy a diet. Early childhood programme practitioners are also in an excellent position to engage fathers, as they have frequent interactions with parents to discuss children's progress. In a qualitative study with fathers from low-income settings, Anderson et al. (2014) found that a mismatch between programme strategies and fathers' role beliefs can hinder programme engagement. The study suggests that practitioner interactions that value fathers and support them in developing parenting skills can facilitate fathers' engagement with the programme (Andreson et al., 2014).

Although it is crucial for parenting interventions to involve and be promoted to fathers (Panter-Brick et al., 2014; Sicouri et al., 2018), they need to be carefully designed to be respectful of cultural values. Minority ethnic parents are often disproportionately affected by barriers, such language understanding, distance to travel and cost (Page et al., 2007). In addition, cultural and ethnic factors may influence paternal engagement (Hoffreth, 2003). For example, O'Donnel et al. (2019) found that in some cultures power relations in households can hinder change to creating smoke-free homes. Health care professionals need to be equipped to show greater sensitivity to the subtleties of cultural norms and be careful to not make incorrect assumptions on the basis of perceived cultural values (Crawshaw et al., 2010).

Despite socio-political changes affecting paternal parenting culture, fathers may still feel

unsupported when it comes to antenatal support (Kowlessar et al., 2015) and health visitors may face organisational and cultural barriers to father-inclusive practice (Humphries & Nolan, 2015). To further promote change, nationwide policies need to challenge gender biases, normalise parenting practices and promote training and education for health professionals. Documents that refer to parents may implicitly perpetuate fathers' role as 'bystanders'. This is acknowledged in Scotland's National Parenting (2012) strategy, which says that 'when discussing parenting we still tend to think of the mother rather than the father, leaving fathers feeling of secondary importance or worse, excluded' (Scottish Government, 2012, p. 35). An inquiry by the Equal Opportunities Committee in 2014 revealed that the Scottish Government has taken steps to address fathers in its guidance and literature, but more work is required so organisations working with parents can ensure their work actively involves fathers (Scottish Parliament, 2014).

Limitations of the current review

A number of limitations of the current scoping review should be acknowledged. The review was performed with a high level of methodological rigour, but it is possible that the search strategy did not capture all available research. In an effort to identify studies that focus on expectant and new fathers, we included key terms related to pregnancy (e.g. antenatal, postnatal). Therefore, the search may have excluded studies focusing on fathers of young children. The review included only studies in English and studies in other languages may offer additional evidence. Although the review did not exclude grey literature, we did not specifically search for grey literature so unpublished reports may have been omitted by the search. Finally, the review followed clear inclusion and exclusion criteria, which may have resulted in the exclusion of studies that focus on the experiences of parents but do not separately report data in relation to fathers.

Conclusion

This scoping review highlights the almost complete absence of new fathers' voices in relation to their experiences of alcohol use and of research on the effectiveness of interventions to support new fathers to reduce alcohol consumption. The findings have implications for researchers and health practitioners, as insufficient understanding of new fathers' experiences of alcohol use may result in missed opportunities to address hazardous and harmful drinking among men during an important period of transition into fatherhood.

References

Albuja, A.F., Sanchez, D.T., Lee, S.J., Lee, J.Y. & Yadava, S (2019) The effect of paternal cues in prenatal care settings on men's involvement intentions. *PLoS ONE*, 14(5), e0216454.

Anderson, S., Aller, T.B., Piercy, K.W. & Roggman, L.A. (2015) 'Helping us find our own selves': exploring father-role construction and early childhood programme engagement. *Early Child Development and Care*, 185, 360-376

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. International Journal of Social Research Methodology, 19-32.

Bailey, J.A., Hill, K.G., Hawkins, J.D., Catalano, R.F. & Abbott, R.D. (2008). Men's and women's patterns of substance use around pregnancy. *Birth*, 35.

Balachova, T.N., Bonner, B.L., Isurina, G.L. & Tsvetkova, L.A. (2007). Use of focus groups in developing FAS/FASD prevention in Russia. *Substance Use & Misuse*, 42(5): 881–894.

Balci, A.S. & Kadioglu, H. (2018). Text messages based interventions for pregnant women's health: Systematic review. *Clinical and Experimental Health Sciences*, 9 (1), 85-90.

Baldwin, S. & Bick, D. (2017). First-time fathers' needs and experiences of transition to fatherhood in relation to their mental health and wellbeing: a qualitative systematic review protocol. *JBI Database of Systematic Reviews and Implementation Reports*, 15 (3), 647-656.

Benoit, C. & Magnus, S. (2017). "Depends on the father": Defining problematic substance use during pregnancy and early parenthood. *Canadian Journal of Sociology*, 42(4), 379-402.

Bodin, M., Käll, L., Tydén, T., Stern, J., Drevin, J. & Larsson, M. (2017) Exploring men's pregnancy-planning behaviour and fertility knowledge: A survey among fathers in Sweden. *Upsala Journal of Medical Sciences*, 122 (2), 127-135.

Brierley-Jones, L., Ling, J., McCabe, K.E., Wilson, G.B., Crosland, A., Kaner, E.F.S. & Haighton, C.A. (2014). Habitus of home and traditional drinking: a qualitative analysis of reported middle class alcohol use. *Sociology of Health & Illness*, 36.

Burgess, A. (2009). Fathers and Parenting Interventions: What Works? Preliminary research findings and their application. The Fatherhood Institute.

Chan, S.S.C., Cheung, Y.T.D., Fong, D.Y.T., Emmons, K., Leung, A.Y.M., Leung, D.Y.P. & Lam, T.H. (2017). Family-based smoking cessation intervention for smoking fathers and non-smoking mothers with a child: A randomized controlled trial. *The Journal of Pediatrics*, 182, 260-266.

Condon, J.T., Boyce, P., Corkindale, C.J. (2004). The First-Time Fathers Study: A prospective study of the mental health and wellbeing of men during the transition to parenthood. *Australian and New Zealand Journal of Psychiatry*, 38:56–64.

Crawford-Williams, F., Steen, M., Esterman, A., Fielder, A. & Mikocka-Walus, A. (2015). My midwife said that having a glass of red wine was actually better for the baby": a focus group study of women and their partner's knowledge and experiences relating to alcohol consumption in pregnancy. *BMC Pregnancy and Childbirth*, 15 (79).

Crawshaw, M., Chattoo, S. & Atkin, K. (2010). *Experiences of cancer-related fertility concerns among people of South Asian and White origin: Summary for professionals*. University of York and Cancer research UK.

Crombie IK, Cunningham KB, Irvine L, Williams B, Sniehotta FF, Norrie J, Melson A, Jones C, Briggs A, Rice PM, Achison M, McKenzie A, Dimova E, Slane PW. (2017). Modifying Alcohol Consumption to Reduce Obesity (MACRO): development and feasibility trial of a complex community-based intervention for men. *Health Technology Assessment*, 21.

Crombie, I.K., Irvine, L., Williams, B., Sniehotta, F.F., Petrie, D., Jones, C., Norrie, J., Evans, J.M., Emslie, C., Rice, P.M. & Slane, P.W., 2018. Texting to Reduce Alcohol Misuse (TRAM): main findings from a randomized controlled trial of a text message intervention to reduce binge drinking among disadvantaged men. *Addiction*, 113(9), pp.1609-1618.

Desrosiers, A., Thompson, A., Divney, A., Magriples, U. & Kershaw, T. (2015). Romantic partner influences on prenatal and postnatal substance use in young couples. *Journal of Public Health*, 38 (2), 300–307.

Dimova, E., McGarry, J., McAloney-Kocaman, K. & Emslie, C. (2020): Exploring men's alcohol consumption in the context of becoming a father: A scoping review. Preprint. Available at https://doi.org/10.6084/m9.figshare.13055711.v1 Accessed 08.01.2021

Edvardsson, K., Ivarsson, A., Eurenius, E., Garvare, R., Nyström, M.E., Small, R. & Mogren, I. (2011). Giving offspring a healthy start: parents' experiences of health promotion and lifestyle change during pregnancy and early parenthood. *BMC Public Health*, 11 (936).

Eggebeen, D.J., Dew, J. & Knoester, C. (2010). Fatherhood and men's lives at middle age. Journal of Family Issues, 31, 113-130.

Emslie, C., Hunt, K. & Lyons, A. (2012). Older and wiser? Men's and women's accounts of drinking in early mid-life. *Sociology of Health & Illness*, 34, 481-496.

Emslie, C., Hunt, K. and Lyons, A. (2013). The role of alcohol in forging and maintaining friendships amongst Scottish men in midlife. *Health Psychology*, 32(1), p.33.

Everett, K.D., Bullock, L., Longo, D.R., Gage, J. & Madsen, R. (2007). Men's tobacco and alcohol use during and after pregnancy. *American Journal of Men's Health*, 1, 317-325.

Flemming, K., Graham, H., McCaughan, D., Angus, K. & Bauld, L. (2015). The barriers and facilitators to smoking cessation experienced by women's partners during pregnancy and the post-partum period: a systematic review of qualitative research. *BMC Public Health*, 15: 849.

Fletcher, R., May, C., Lambkin, F.K., Gemmill, A.W., Cann, W., Nicholson, J.M., Rawlinson, C., Milgrom, J., Highet, N., Foureur, M., Bennett, E. & Skinner, G. (2016): SMS4dads: Providing information and support to new fathers through mobile phones – a pilot study. *Advances in Mental Health*,

doi: 10.1080/18387357.2016.1245586

Fletcher, R., May, C., Attia, J., Garfield, C. F. & Skinner, G. (2018). Text-based program addressing the mental health of soon-to-be and new fathers (SMS4dads): Protocol for a randomized controlled trial. *JMIR Research Protocols*, 7(2), e37.

Fletcher, R., Knight, T., Macdonald, J.A. & St George, J. (2019). Process evaluation of text-based support for fathers during the transition to fatherhood (SMS4dads): mechanisms of impact. *BMC Psychology*, 7.

Garfield, C.F., Isaccob, A. & Bartloc, W. (2010). Men's health and fatherhood in the urban Midwestern United States. International Journal of Men's Health, 9, 161-174.

Gilinsky, A., Swanson, V. & Power, K. (). Interventions delivered during antenatal care to reduce alcohol consumption during pregnancy: A systematic review. *Addiction Research & Theory*, 19, 235-250.

Gordon, D.M., Hawes, S.W., Reid, A.E., Callands, T.A., Magriples, U., Divney, A., Niccolai, L.M. & Kershaw, T. (2013). The many faces of manhood: Examining masculine norms and health behaviours of young fathers across race. *American Journal of Men's Health*, 7(5), 394–401.

Hammer, R. (2019). 'I can tell when you're staring at my glass ...': self- or co-surveillance? Couples' management of risks related to alcohol use during pregnancy. *Health, Risk & Society*, 21(7-8), 335-351.

Heimdahl, K. & Karlsson, P. (2016) Psychosocial interventions for substance-abusing parents and their young children: A scoping review. *Addiction Research & Theory*, 24 (3), 236-247.

Hofferth, S.L. (2003). Race/ethnic differences in father Involvement in two-parent families: Culture, context, or economy? *Journal of Family Issues*, 24, 185-216.

Högberg, H., Skagerström, J., Spak, F., Nilsen, P. & Larsson, M. (2016). Alcohol consumption among partners of pregnant women in Sweden: a cross sectional study. *BMC Public Health*, 16, 694.

Holopainen, A. & Hakulinen, T. (2019). New parents' experiences of postpartum depression: a systematic review of qualitative evidence. *JBI Database of Systematic Reviews and Implementation Reports*, 17 (9), 1731-1769.

Hopewell, S., McDonald, S., Clarke, M. & Egger, M. (2007). Grey literature in metaanalyses of randomised trials of health care interventions. Cochrane Database of Systematic Reviews, doi: 10.1002/14651858.MR000010.pub3

Humphries, H. & Nolan, M. (2015). Evaluation of a brief intervention to assist health visitors and community practitioners to engage with fathers as part of the healthy child initiative. *Primary Health Care Research & Development*, 16, 367 – 376.

Kerr, D.C.R., Capaldi, D.M., Pears, K.C. & Owen, L.D. (2012). Intergenerational influences on early alcohol use: independence from the problem behaviour pathway. Developmental Psychopathology, 24, 889-906.

Kowlessar, O., Fox, J. & Wittkowski, A. (2014). First-time fathers' experiences of parenting during the first year. *Journal of Reproductive and Infant Psychology*, 33, 4-14

Kwon, J.Y., Oliffe, J.L., Bottorff, J.L. and Kelly, M.T. (2015). Masculinity and fatherhood: New fathers' perceptions of their female partners' efforts to assist them to reduce or quit smoking. *American journal of men's health*, 9(4), pp.332-339.

Levac, D., Colquhoun, H. & O'Brien, K. (2010). Scoping studies: Advancing the methodol-ogy. Implementation Science, 5.

McBride, C., Emmons, K., & Lipkus, I. (2003). Understanding the potential of teachable moments: The case of smoking cessation. *Health Education Research*, 18, 156-170.

McBride, N. & Johnson, S. (2016). Fathers' role in alcohol-exposed pregnancies. Systematic review of human studies. American Journal of Preventive Medicine, 51, 240–248.

McCrady, B.S., Tonigan, J.S., Ladd, B.O., Hallgren, K.A., Pearson, M.R., Owens, M.D. & Epstein, E.E. (2019). Alcohol behavioural couple therapy: In-session behaviour, active ingredients and mechanisms of behaviour change. *Journal of Substance Abuse & Treatment*, 99, 139-148.

Nichter, M., Padmajam, S., Nichter, M., Sairu, P., Aswathy, S., Mini, G.K., Bindu, V.C. et al. (2015). Developing a smoke free homes initiative in Kerala, India. *BMC Public Health*, 15.

Noonan, D., Lyna, P., Fish, L.J., Bilheimer, A.K., Gordon, K.C., Roberson, P., Gonzalez, A. & Pollak, K.I. (2016). Unintended effects of a smoking cessation intervention on Latino fathers' binge drinking in early postpartum. *Annals of Behavioral Medicine*, 50, 622-627.

Olsson, A., Robertson, E., Björklund, A. & Nissen, E. (2010). Fatherhood in focus, sexual activity can wait: new fathers' experience about sexual life after childbirth. *Scandinavian Journal of Caring Sciences*, 24, 716–725.

Page, J. & Whitting, G. (2007). *Engaging effectively with black and minority ethnic parents in children's and parental services*. Department for Children, Schools and Families.

Panter-Brick, C., Burgess, A., Eggerman, M., McAllister, F., Pruett, K., & Leckman, J. F. (2014). Practitioner review: Engaging fathers--recommendations for a game change in parenting interventions based on a systematic review of the global evidence. *Journal of child psychology and psychiatry, and allied disciplines*, 55(11), 1187–1212.

Poh, H.L., Koh, S.S.L. & He, H.G. (2014). An integrative review of fathers' experiences during pregnancy and childbirth. *International Nursing Review*, 61 (4).

Pollak, K.I., Denman, S., Gordon, K.C., Lyna, P., Rocha, P., Brouwer, R., Fish, L. & Baucom, D.H. (2010). Is pregnancy a teachable moment for smoking cessation among US Latino expectant fathers? A pilot study. *Ethnicity & Health*, 15(1), 47-59.

Robertson, S. (2007). Understanding men and health: Masculinities, identity and wellbeing. Maidenhead: Open University Press.

Robinson, M., Wilkinson, R.B., Fletcher, R., Bruno, R., Baker, A.L., Maher, L., Wroe, J. & Dunlop, A.J. (2018). Alcohol text messages: A developmental study. *International Journal of Mental Health Addiction*, 16, 1125–1139.

Ryan, J., Lopian, L., Le, B., Edney, S., Van Kessel, G., Plotnikoff, R., Vandelanotte, C., Olds, T. & Maher, C. (2019). It's not raining men: a mixed-methods study investigating methods of improving male recruitment to health behaviour research. *BMC Public Health*, 19, 814.

Schölin, S., Watson, J., Dyson, J. & Smith, L. (2019). Alcohol guidelines for pregnant women: Barriers and enablers for midwives to deliver advice. London: Institute of Alcohol Studies.

Scottish Parliament (2014) Equal Opportunities Committee 1st Report, 2014 (Session 4) Fathers and parenting.

Scottish Government (2012) National Parenting Strategy. Edinburgh: Scottish Government Shawe, J., Patel, D., Joy, M., Howden, B., Barrett, G. & Stephenson, J. (2019). Preparation for fatherhood: A survey of men's preconception health knowledge and behaviour in England. PLoS ONE, 14, e0213897.

Sicouiri, G., Tully, L., Collins, D., Burn, M., Sargeant, K., Frick, P., Andreson, V. et al. (2018). Toward father-friendly parenting interventions: A qualitative study. *Australian and New Zealand Journal of Family Therapy*, 39.

Stade, B.C., Bailey, C., Dzendoletas, D., Sgro, M., Dowswell, T. & Bennett. D. (2009). Psychological and/or educational interventions for reducing alcohol consumption in pregnant women and women planning pregnancy. *Cochrane Database of Systematic Reviews*, 15: CD004228.

Tricco, A. C., Lillie, E., Zarin, W. et al. (25 more authors) (2018) PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. Annals of Internal Medicine. pp. 467-473.

Van der Wulp, N. Y., Hoving, C. & Vries, H. (2013). A qualitative investigation of alcohol use advice during pregnancy: Experiences of Dutch midwives, pregnant women and their partners. *Midwifery*, 29, e89–e98.

Williams, R.A. (2007). Masculinities, fathering and health: The experiences of African Caribbean and white working class fathers. Social Sciences & Medicine, 64, 338-349.

Wolf, J.P. & Chávez, R. (2015). "Just make sure you can get up and parent the next day": Understanding the contexts, risks, and rewards of alcohol consumption for parents. *Families in Society*, 96, 219–228.

Tables

Table 1: Example of the electronic search strategy (Medline)

Search ID	Search terms	Results
1	antenatal.mp.	31,559
2	antepartum.mp.	5,342
3	prenatal.mp.	164,903
4	perinatal.mp.	68,517
5	postnatal.mp.	100,828
6	postpartum.mp.	63,970
7	pregnan*.mp.	958,204
8	1 or 2 or 3 or 4 or 5 or 6 or 7	1,080,429
9	father*.mp.	41,411
10	dad*.mp.	16,273
11	expectant father*.mp.	216
12	men.mp.	462,475
13	significant other*.mp.	3,543
14	partner*.mp.	157,128
15	husband*.mp.	34,695
16	spous*.mp.	30,027
17	paternal*.mp.	29,091
18	9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17	721,713
19	alcohol.mp.	269,187
20	drink*.mp.	177,674
21	19 or 20	362,706
22	8 and 18 and 21	1,770

Table 2: Studies on new fathers' experiences of alcohol consumption

Study information	Aim	Methods	Population	Recruitment	Key findings (in relation to fathers)
Benoit &	Explores how	Qualitative study, using	Eight expectant or new	Via posters in health and social	Fathers saw themselves as role models for their
Magnus (2017).	parents fit	interviews (part of a	fathers	service sites and community	children. Modelling virtuous behaviour was
Canada	fathers into	larger mixed-methods	Age: Median = 26	centres frequented by families;	framed as necessary for breaking the cycle of
	discourses about	study).	Relationship status:	and snowball sampling.	socioeconomic disadvantage, including criminality.
	problematic	Interviews in family-	Eight in a committed		Some men believed fathers' substance use became
	substance use	friendly locations,	relationship		problematic when it compromised emotional and
	during the	including the parents'	with the mother of their		physical support for the mother.
	perinatal period.	homes.	youngest (or unborn)		The epitome of substance-related harm for fathers
		Open-ended questions	child.		was domestic violence; the majority of participants
		about participants' living	Ethnicity: Six		conceded that safety was a prerequisite for the
		situation, experiences	Indigenous (First		inclusion of fathers in family life or in family social
		with healthcare services,	Nations, Métis or Inuit).		programs.
		opinions about how	Employment: Two		Men believed fathers' problematic substance use
		Her Way Home (HWH)	employed; four in receipt		can be as harmful to the baby as that of the mother.
		services (a new harm	of income assistance.		Agreement to abstain was more often represented
		reduction program for	Housing status: One		as the mother's decision, rather than a mutual
		new and expectant	homeless.		negotiation.
		mothers) could be most			
		helpful, and about a			
		personal definition of			
		problematic substance			
		use during pregnancy			
I		and early parenting.			

Crawford-	To identify gaps	Qualitative study, using	Four expectant or new	Flyers at a Women's and	Most women and their partners recognise that
Williams et al.	in knowledge	focus groups.	fathers	Children's Hospital and at a	alcohol has the potential to cause harm to the
(2015). Australia	about the effects	Focus group guide	Age range: 23 to 40	University.	unborn baby. However, the quantity of alcohol
	of alcohol use	focused on the	years.		required to cause harm, and the impact of the
	in pregnancy	adverse consequences	Ethnicity: Caucasian,		timing of the exposure were not as well known.
	among pregnant	of drinking during	either from Australia or		Knowledge of FASD: Belief that alcohol
	women, newly	pregnancy, the	New Zealand.		consumption in the first trimester would cause the
	delivered and	partner's role in			most harm, but small amounts of alcohol, such
	their partners.	health decisions, the	Information on male		as one or two glasses throughout the whole of
		sources of information	partners is not reported		pregnancy would not be harmful to the foetus.
		about alcohol use in	separately.		Men's role in pregnancy: Some men showed
		pregnancy, and the			support by cutting back their own drinking, while
		availability of			others continued to drink.
		reliable health			
		information.			

van der Wulp et	To explore what	Qualitative study, using	Nine expectant fathers	Through midwife practices,	Many partners reduced their alcohol use around
al. (2013). The	information	interviews and focus	Age: Mean = 34 years.	pregnancy courses, antenatal	their spouse to support her to refrain from alcohol
Netherlands	Dutch pregnant	groups.	Place of residence:	childbearing classes, pregnancy	and because they missed their spouse as q drinking
	women and	Questions related to	56% lived in cities, 44%	yoga classes. Midwives	companion.
	partners receive	men in the sample	lived in village/ rural	distributed recruitment flyers.	Partners reported that websites about pregnancy
	about alcohol in	included:	locations.	Pregnant women and partners	seemed largely designed for women, as they were
	pregnancy.	Has your partner	Education: 78% had	in pregnancy classes were	published in pink and contained pictures of happy
		used alcohol in her	Higher vocational	recruited at class meetings.	pregnant women.
		pregnancy?; Have you	school/ college degree/		
		discussed antenatal	university degree,		
		alcohol use with your	22% had secondary		
		partner?; What did you	vocational/ high school		
		discuss specifically?; Did	degree.		
		you receive or search	Antenatal alcohol use:		
		for information about	33% of men in the		
		alcohol consumption	sample		
		during pregnancy?;	<u>Percentage first</u>		
		Discussion around	pregnancy: 78%		
		the content of the			
		information and			
		thoughts on how			
		information can be			
		improved.			

Table 3: Studies on interventions to reduce alcohol consumption in new fathers

Study information	Aim	Methods	Population	Recruitment	Intervention information	Alcohol measures and outcomes
Fletcher et al.	To conduct the	Randomised	800 fathers-to-be or	Through the	A 77-week programme, including	Measures: The Alcohol Use Disorders
(2018). Australia	first randomized	Control Trial.	new fathers will be	SMS4dads	294 text messages, limited to 160	Identification Test (AUDIT C, 3 items).
	controlled trial		recruited.	website; social	characters.	Outcomes: It is predicted that use of
	of a text-based			media, flyers	Messages will provide new fathers	alcohol will be lower among those
	intervention,			distributed by	with information, support them in	receiving SMS4dads than among
	SMS4dads, which			health staff in	caring for their own physical and	those receiving SMS4health.
	targets fathers'			contact with	mental health, nurturing strong	
	mental health			parents, and	relationships with their child,	
	during the			mainstream	and developing strong parenting	
	perinatal period.			media outlets.	partnerships with their partner.	
				Eligibility criteria:	Messages are timed according the	
				having a partner	babies expected or actual date	
				who is more	of birth and thereby designed to	
				than 16 weeks	address issues that are likely to be	
				pregnant or their	occurring for the father when the	
				infant is less than	information arrives.	
				12 weeks of age,	Messages aim to engage with fathers	
				have a mobile	through humour, by use of the baby's	
				phone capable	voice, and through an encouraging,	
				of receiving text	non-judgmental tone.	
				messages, and	Some messages address particular	
				they can read	issues such as alcohol consumption	
				and understand	(n=25).	
				English.		

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Robinson et al.	To develop 30	A developmental	51 expectant or	Via social media.	30 short messages, limited to 160	Measures: Importance and difficulty
(2017). Australia	text messages to	study in	current fathers	Eligibility criteria:	characters.	of drinking alcohol as per Australian
	inform men about	addition to a	Parenting experience:	being a current	The messages were informed by	alcohol guidelines (Using 10-point
	the benefits of	qualitative study	Two (3.9%) expectant	or expectant	Motivational Interviewing and the	Likert scales); AUDIT C.
	reducing risky	of participants	fathers, 49 (96.1%)	Australian father,	Stages of Change model. They	Outcomes:
	drinking during	experiences of the	current father	having ever	addressed alcohol-related harms	Most fathers' (65%) current alcohol
	the transition to	intervention.	<u>Living arrangements</u> :	consumed alcohol	in relation to infant health, the	levels were considered risky
	fatherhood.		44 (86.3%) married/	and having access	spousal relationship, father-infant	according to the Australian Alcohol
			de facto, 7 (13.7%)	to the Internet.	relationship and the fathers' health.	Guidelines.
			separated		Messages were based on national	Messages in a child's voice were given
			Age group: 13 (25.5%)		alcohol guidelines regarding alcohol	a higher importance rating, compared
			between 25–35 years,		consumption.	to those in a second person voice.
			38 (74.5%) between		The text messages were presented	Most interview participants found the
			36–50 years		using two types of message voice: a	messages to be non-judgmental in
			Education level: Two		child's voice, as if the father's own	style.
			(3.9%) year 10 or		child were addressing him (e.g., 'Hey	Messages that directly connected the
			below, 10 (27.4%) years		dad, do you know how many drinks	father's behaviour with their child's
			11 or 12, 39 (76.5%)		you can have before it affects your	health and emotional wellbeing
			university under/		health?') or a second person voice	had greater impact than the
			postgraduate		(e.g. 'Do you know how many drinks	messages about men's own health.
			Employment: 50		you can have before it affects your	Messages using the child's voice
			(98.0%) full-time/		health?').	made men aware of their paternal
			part-time, one (2.0%)			responsibilities and how their
			unemployed.			drinking behaviour may impact upon
						their child, but some men believed
						messages in a child's voice to be
						manipulative.
						Ex-drinkers and risky drinkers
						indicated a preference for the
						strongly worded alcohol messages.
<u> </u>	A				·	

Noonan et al.	To examine	Secondary	348 men.	Through	Intervention: a smoking cessation	Measures: Binge drinking in the past
(2016). USA	whether arm	analysis of	Age: Mean = 30 years.	antenatal clinics.	booklet, free nicotine replacement	30 days, measured in two stages: 1)
	effects exist	data from the	Race: 49 white, 46	Eligibility criteria:	therapy six weeks, three two-hour	asking men: 'During the past 30 days,
	for a cessation	Parejas Trial,	more than one race,	at least 16 years	face-to-face counselling sessions at	on or about how many days a week
	intervention on	a randomized	five other, six missing	of age, having	the couple's home during pregnancy,	did you drink alcoholic beverages?'
	the unintended	controlled trial	data.	smoked at least	and three sessions postpartum	2) Those men that drank one or
	outcome of binge	to compare	Monthly income: 22	100 cigarettes in	(one face-to-face and two over the	more days a week were then asked,
	drinking.	a culturally	<\$500, 32 between	their lifetime, and	phone).	'Consider a drink to be a can or bottle
		tailored smoking	\$501-\$1000, 25	having smoked	Face-to-face sessions included:	of beer, a 4-oz glass of wine, or one
		cessation	between \$1001-\$1500,	in the last 30	a PowerPoint slide show on the	cocktail containing 1-oz of liquor. On
		intervention	21 > \$1501.	days, pregnant	emotions surrounding the family	average, when you drink alcoholic
		among Latino	Perceived financial	partner between	(including pride, protectiveness; and	beverages how many drinks do you
		fathers during	<u>burden</u> : Five had	13 and 29 week	responsibility), discussion about	have each day?'
		pregnancy and	enough money for	gestation.	the health effects of smoking; goal	Those men who answered 5 or more
		postpartum.	special things, 42 had		setting (male counsellor helped	drinks a day were considered to be
			enough money to pay		the man to build motivation and	binge drinkers.
			the bills but little spare		set goals around quitting smoking;	Outcomes: Men who received the
			money, 15 had money		female counsellor worked with the	couples-based intervention were
			to pay the bills but cut		woman to promote healthy eating	less likely to report binge drinking
			back on things, 38 had		and activity goals); promotion of	at 12 months compared to those in
			difficulty paying the		effective communication skills.	the control arm, and men who quit
			bills.		Phone sessions with men lasted	smoking reported less binge drinking
			Education: 66 < 9th		approximately 15 mins and focused	at 12 month follow-up compared to
			Grade.		on reviewing progress towards	non-quitters.
			Alcohol use in the past		smoking cessation and practicing	
			<u>30 days</u> : 17 none, 26		couple's communication skills.	
			<once 36="" a="" one<="" td="" week,=""><td></td><td>Comparison intervention: a smoking</td><td></td></once>		Comparison intervention: a smoking	
			day a week, 12 two		cessation booklet and free nicotine	
			days a week, 10 three		replacement therapy six weeks.	
			or more days a week;			
			51 binge drinkers.			

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