Elsevier required licence: © <2020>. This manuscript version is made available under the CC-BY-NC-ND 4.0 license http://creativecommons.org/licenses/by-nc-nd/4.0/

The definitive publisher version is available online at

[https://www.sciencedirect.com/science/article/pii/S1871519219301799?via%3Dihub]

- 1 A cross-sectional survey of pregnant women's perceptions of routine domestic and family
- 2 violence screening and responses by midwives: Testing of three new tools

- 4 Abstract
- 5 **Background**
- 6 Implementing Domestic and Family Violence (DFV) screening, support, and prevention
- 7 within maternity services is becoming common practice but women's experiences of
- 8 screening are not routinely evaluated.
- 9 Aims
- 10 (1) Explore pregnant women's experiences of routine DFV screening and perceptions of
- responses by midwives; and (2) undertake preliminary testing of three new tools.
- 12 Methods
- 13 Using a cross-sectional design, pregnant women (n = 210) attending an antenatal service
- were surveyed. Three new measures: Beliefs about DFV Screening; Non-disclosure of DFV;
- and Midwifery Support were tested.
- 16 Results
- 17 Most women (92.3% n = 194) were asked about DFV during pregnancy. Twelve (5.8%)
- respondents had/were experiencing DFV but not all disclosed. A quarter (24.1% n = 49) had
- 19 experienced abuse during childhood. The scales were reliable and factor analysis established
- validity. Women reported positive Beliefs (Mean 35.38, SD 3.63 range 19-40) and views
- about Midwifery Support (Mean 24.88, SD 3.08 range 18-30). There was less agreement
- about why some women do not disclose DFV (Mean 21.97, SD 4.27, range 8-30). Women
- who reported abuse as a child (t (199) = -2.283, p = 0.23), or experiencing violence now (t
- 24 (199) = -2.283, p = 0.016) were less comfortable with screening. Comments (n = 75) revealed
- support for routine enquiry that was confidential, explained, and occurred in a trusting
- 26 relationship.
- 27 **Discussion**
- Women were supportive of screening, but actual rates of disclosure were low. Women
- 29 acknowledged the importance of screening but did not want their information shared.
- 30 Conclusions
- Women value screening, even if DFV is not disclosed. Exploring women's experiences is
- 32 central to ensuring quality care.

- **Key words:** Antenatal, Domestic and Family Violence, pregnancy, women, midwives, beliefs,
- 35 survey, screening

Introduction

Statement of significance

Problem or Issue	Relatively little is known about women's experiences of being screened for domestic and family violence.
What is Already Known	Domestic and family violence is recognised as a global health problem. There is controversy about the benefit of screening for women experiencing violence.
What this Paper Adds	Pregnant women support routine DFV screening but in the context of a trusting relationship. Women experiencing violence had difficulty talking about violence, were fearful of their partner finding out, or did not 'connect' with the midwife.

Domestic and family violence (DFV) is recognised as a global health problem of pandemic proportions (1). For the purposes of this paper, DFV is most often perpetrated by men against women with whom they are in an intimate partner relationship and their children. DFV can result in physical, emotional and psychological harm, as well as death. Gender based violence affects over a third of women globally (1). A meta-analysis of domestic violence during pregnancy included 92 studies from 23 countries and found the average reported prevalence rates of emotional abuse was 28.4%, 13.8% for physical abuse, and eight percent for sexual abuse (2). The true extent of the problem is under-estimated as violence is often hidden in the home and many incidences of physical and sexual violence go unreported. The adverse consequences of DFV range from acute injury to chronic adverse health conditions, including mental health issues, gynaecological disorders, poor pregnancy outcomes, gastrointestinal disorders, chronic pain, suicidality, and drug and alcohol abuse (3, 4).

Routine enquiry about DFV during pregnancy has been implemented by many health services in Australia but often without comprehensive staff training, system changes and referral processes (5). Some clinicians report being hesitant about screening (6) and some

women experiencing violence report being unwilling to disclose violence outside a trusting relationship with a health professional. For example, in a community-based postal survey on women's willingness to discuss and receive help on a range of physical and psychosocial issues Hegarty, O'Doherty, Astbury and Gunn (7) found women were least comfortable discussing 'fear of a partner' and least likely to seek help in this regard. However, acceptability of being asked such questions was high. Indeed, for the past 20 years, many researchers from different countries and settings (antenatal, community, emergency department, general practices) have reported that women find screening acceptable (8-10). A meta-analysis of qualitative studies by Feder and colleagues (11) established that women valued and supported DFV enquiry by health professionals even if they were not ready to talk about their own personal experiences. There is, however, controversy regarding routine DFV enquiry. A Cochrane Review by Taft et al (4) questioned the efficacy of routine enquiry, highlighting that while rates of disclosure increased, referrals to specialist services were very low and service responses were not always co-ordinated. While there was no evidence of harm, there was also no conclusive evidence of benefit to women experiencing DFV. Women's experiences of routine DFV screening There has been growing research on women's attitudes and beliefs about DFV screening, but relatively few studies on women's experiences of screening during pregnancy. Sprango, Zwi, Poulos & Man (12) followed women who received screening in ten mental health, antenatal or drug and alcohol services in New South Wales. Women were grouped according to those who disclosed violence (n = 122) or not (n = 241), but not according to service setting. Of the women who did not disclose, 14% (34/240) had or were experiencing DFV. Women did not disclose because 'the abuse was not serious enough'; 'fear of their partner finding out' and 'discomfort with the health worker' (12). Of the women who disclosed violence, only 35% (or around ten women) accessed further services. Research with survivors of DFV tends to be qualitative in design and report both positive and negative consequences of screening. For example, Kataoka & Imazeki (13) interviewed 43 Japanese women, eight of whom screened positive for violence during pregnancy. Content analysis revealed that screening enabled women to redefine their couple relationship, enhanced awareness of violence, and facilitated opportunities for support.

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

89 Although these women found screening acceptable, some found it difficult to talk about violence, were fearful of their partner finding out, or did not 'connect' with the nurse. 90 91 92 In a UK study, Keeling and Birch (14) surveyed 316 women referred to an early pregnancy 93 unit (less than 12 weeks gestation). Around a quarter of these women (26.3%) reported 94 experiencing severe emotional or physical abuse during their lifetime with 8.5% 95 experiencing violence in the last 12 months. While most women found screening acceptable, 15.7% disagreed or were unsure and 15.8% felt offended by screening. Similarly, 96 97 a qualitative study by Koziol-McLain et al. (15) also found that women without a history of 98 violence thought that screening was acceptable but may be offensive to those experiencing 99 violence, whereas those who reported DFV thought screening was an essential prevention 100 strategy. 101 102 The limited research to date on women's experiences of routine DFV screening during 103 pregnancy identifies overall acceptability of this practice, but not all women report positive experiences. There is a need to explore women's experiences of screening with larger 104 105 samples to enhance generalisability of results. Furthermore, in the context of quality 106 improvement, exploring women's experiences of screening may identify the proportion of 107 women receiving screening, the quality of interactions, and women's perceptions of midwives' responses to disclosure. The current study aimed to (1) explore pregnant 108 109 women's experiences of routine DFV screening and perceptions of responses by midwives; and (2) undertake preliminary testing of three new tools. 110 111 Background to the current study 112 113 The current study is part of a larger DFV research program developed in response to the Not Now, Not Ever – Putting an End to Domestic and Family Violence in Queensland, 2014 114 115 Taskforce Report. An organisational snapshot gap analysis conducted in 2016 by the authors identified eight major issues including: limited training of staff; no specialist DFV worker; 116 lack of standardised DFV systems and processes; disconnected patient information systems; 117 no DFV data collation across the hospital and health service; patient and staff safety issues; 118

lack of DFV resources; and limited interpreter services and support for Indigenous and

120 migrant women experiencing DFV. Five key target clinical areas or 'hotspots' were identified and included maternity services. 121 122 123 Work to date has included the roll out of DFV training to clinicians around screening, 124 responding appropriately, referral, appointment of DVF champions to support clinical staff, 125 and developing an array of policies and procedures. A recent chart audit of maternity 126 screening rates covering a period of 16 months post-training identified that of the 6,671 women presenting for antenatal care around 90% were screened but disclosure of DFV was 127 128 very low (< 2%) with most women at risk or experiencing violence declining referral (16). 129 These ominous findings suggested the need to take a 'step back' and explore pregnant 130 women's experiences of DFV screening and perceptions of responses by midwives. 131 132 Participants, Ethics and Methods 133 Design 134 A cross sectional survey design was used. 135 **Participants** 136 All pregnant women with sufficient English to read and respond to survey questions were 137 invited to participate. Two hundred and ten women were approached of whom 205 agreed to participate (97.6% response rate). 138 139 Setting 140 Publicly funded hospital and community-based antenatal services conducted by midwives employed by a tertiary hospital and health service in Queensland Australia. 141 142 Measures The survey was developed by the authors because few previous quantitative studies have 143 144 evaluated women's experiences of DFV screening. Where possible, items were adapted from any prior studies conducted in maternity(17, 18) and different clinical settings such as 145 emergency departments or alcohol and drug services. The anonymous survey included 146 sociodemographic (age, ethnicity, marital status), pregnancy, and care details (gestation, 147 148 parity, model of care). The three models of care included shared care between a woman's 149 general practitioner (GP) and rostered hospital midwife; continuity of midwifery care during 150 pregnancy, birth and postpartum; and obstetrician-led care. Women reported if they had 151 been asked about DFV during pregnancy by a midwife, if they had/were experiencing DFV,

152 and childhood sexual abuse. Open-ended questions sought any other comments women wished to make about their experiences of screening. 153 154 155 The Beliefs about DFV Screening Scale consisted of 10 items on a 5-point Likert scale of 1 = 156 strongly disagree to 5 = strongly agree. Items included statements such as 'I would feel comfortable sharing my experiences of DFV to my midwife'; 'Women who are experiencing 157 violence at home would benefit from telling a midwife' and 'I believe a midwife asks about 158 domestic and family violence to protect the woman and her baby'. 159 160 161 The Non-disclosure of DFV Scale consisted of 5 items on a 5-point Likert Scale of 1 = strongly 162 disagree to 5 = strongly agree. Items asked respondents to indicate possible reasons why 163 women may not disclose violence, for example, feeling ashamed; fear of being judged, and 164 being frightened their partner may find out. 165 166 Women also indicated the extent to which support by a midwife would be helpful on the 6 item Midwifery Support Scale with responses from 1 = strongly disagree or 5 = strongly agree. 167 168 Support by midwives included helping women to access a community DFV agency; providing 169 information; and sharing information about violence with the hospital social worker or the 170 woman's GP. 171 172 Approach to analysis Survey data were coded and entered into SPSS, Version 27 (SPSS Inc., Chicago, Illinois, USA). 173 Descriptive statistics were computed for sociodemographic, pregnancy and care variables. 174 175 To determine if the survey items formed scales, Principal Component Factor analysis was 176 conducted using Direct Oblimin rotation. Loadings < 0.4 were suppressed. Cronbach's Alpha was used to determine reliability. Total and factor scores were calculated. Correlational 177 178 analyses examined associations amongst scale responses to establish validity. Inferential statistics included t-test, ANOVA and chi square. Missing values were left vacant. Some data 179 were transformed into categories such as relationship status (stable/ not stable); current 180

and past experience of violence compared to no violence; and model of care (continuity of

midwifery care/ shared care). Qualitative comments were analysed according to recurring

181

183	concepts and tallied into descriptive statistics. Reporting followed criteria according to the
184	STROBE Statement.
185	Procedure
186	Women attending an antenatal service offered in the hospital or outreach service in a
187	community-based midwifery clinic and meeting the inclusion criteria were invited to
188	participate in the survey. Survey forms were completed before or after the woman's
189	appointment and completion implied consent.
190	Ethics
191	Ethical approval was obtained from the relevant Human Research Ethics Committee
192	(HREC/15/QGC/87).
193	Results
194	Sample
195	Two hundred and five women attempted the survey, but one woman did not complete all
196	the scales and was not analysed. The average age of participants was 28.7 years, most were
197	Caucasian Australian (72%) and in a stable relationship (90.7%). Just over half the women
198	were having their first baby. Average gestation when completing the survey was 32.3 weeks
199	(as outlined in Table 1).
200	
201	Most women (95.1% n = 194) reported being asked about DFV during pregnancy by a
202	midwife. Ten (5%) women answered 'no' or were 'unsure'. Most women (93.5% n = 190)
203	reported being asked about DFV in early pregnancy (mean = 18.54 weeks gestation, SD
204	3.89). Twelve (5.8%) women had recently or were currently experiencing DFV. A quarter
205	(24.1% n = 49) had experienced abuse during childhood.
206	
207	Insert Table 1 about here
208	
209	Validity and Reliability of measures
210	Preliminary testing of assumptions for factor analysis revealed Kaiser-Meyer-Olkin measure
211	of sampling adequacy scores were above 0.7 for all scales, and Bartlett's test of sphericity
212	was significant at p < .001. Principal Component Factor analysis on 'Beliefs about DFV
213	Screening' identified two factors: Factor 1 Benefits of Disclosure (items 5; 6; 8; 9) with a α =
214	0.70. Factor 2, Comfort (items 2, 3, 4, 7) had a α = 0.78. Items 1 and 10 did not sufficiently

load onto either factor and were removed. Factor 1 explained 26.47% of the variance; and Factor 2 a further 14.33%. The mean score on Factor 1 was 18.8 (SD = 1.54, range 14-20). The mean score on Factor 2 was 16.56 (SD = 2.78, range 4-20). Item means on this scale are presented in Table 2 and reveal consistently high levels of agreement. Item 9 *I believe a midwife asks about DFV to protect the woman and her baby* achieved the highest mean score (mean = 4.85, SD .37) followed by Item 6 *I think it is important that midwives provide women with advice about DFV support services* (mean = 4.77, SD .45). The lowest score was on item 7 *I do not think it is the role of the midwife to ask about violence in the home* (mean = 4, SD .99).

Insert Table 2 about here

Factor analysis on the Non-Disclosure Scale found that all items loaded on one factor (α = 0.82) which explained 44.11% of total variance. The mean score on this scale was 21.97 (SD = 4.27, range 8-30). There were a range of responses on this scale as reflected by the item means (see Table 3). Women were more likely to agree that women would not disclose DFV if they were *frightened their partner found out they told the midwife* (Item 4 mean 4.13, SD .9). *Feeling too ashamed* (Item 1 mean 4.01, SD .80) also achieved a high level of agreement by respondents. Women thought the prospect of disclosure being shared with others would hinder disclosure (item 6 mean 3.77 SD 1.01). Similarly, a lack of *trust in the midwife* (Item 3 mean 3.19, SD 1.06) would also hinder disclosure.

Insert Table 3 about here.

Items on the Midwifery Support Scale loaded onto two factors. Factor 1 - Support (items 1, 2, 5, 6) had a α = 0.79, explained 40.46% of the total variance, and produced a mean score of 17.69 (SD = 1.95, range 12-20). Factor 2 - Information Sharing (items 3, 4) had a α = 0.83, explained 18.24% of the total variance and had a mean score of 7.19 (SD = 1.88, range 2-10). Respondents were more likely to agree that a midwife could help by providing emergency help numbers (Item 6 mean 4.59, SD .56); helping women access a community DFV agency (Item 2 mean 4.41, SD .56); and providing emotional support and counselling (Item 5 mean

246 4.42, SD .66) (see Table 4). Women were less likely to agree that a midwife should share a woman's information with her GP (Item 3 mean 3.43, SD 1.08). 247 248 249 Insert Table 4 about here. 250 251 There were consistent correlations between the Belief and Midwifery Support Scales. As expected, subscale scores on Factor 1 Benefits of Screening (r = .70 p < .001) and Factor 2 252 Comfort with Screening (r = .92, p < .001) were highly correlated with the total Belief Scale. 253 254 Similarly, factors on the Midwifery Support Scale (Factor 1 Support r = .30. p <.001 and 255 Factor 2 Information Sharing r = .20. p < .001) were also consistently associated with the 256 Beliefs Scale. Inverse, but not statistically significant associations were found between these 257 factors and responses on the Non-Disclosure Scale. 258 259 Independent t-tests showed a significant relationship between responses on the Comfort 260 subscale and whether a woman had experienced sexual abuse as a child (t(199) = -2.28, p =0.23), or experiencing violence now (t(199) = -2.28, p = 0.016). Those who had not reported 261 262 any current or prior experience of violence were slightly more comfortable discussing DFV with a midwife than those who had. No other meaningful results were found. 263 264 Of the 75 qualitative comments received, 61 were positive in nature, agreeing with the 265 266 intent of routine DFV screening. Midwives' practice was described as 'professional; respectful; explained why the questions needed to be asked; and 'talked nicely about my 267 emotions'. For example, one woman wrote: The midwife made me feel comfortable and I 268 agree with the care, questions and support offered in relation to domestic violence. Another 269 270 wrote: 'The questions were asked professionally and sensitively. I would have felt comfortable sharing if I had any experience with DFV'. Other feedback about screening 271 272 included the need for it to occur in a safe environment, after a trusting relationship had been established, and include the provision of information for women. One woman wrote: 273 'Even though I haven't personally experienced DFV, the questions asked are still very 274

confronting. I think providing women with the necessary info and support without delving

into quite deep questions abruptly is a safer avenue'. Another woman wrote: 'I'm not

275

experiencing domestic violence and I feel asking this on the 1st appointment with strangers is the wrong way to get women to open up about this'.

Thirteen women reported negative experiences of screening or expressed concern about the process of routine enquiry. Comments alluded to a lack of trust, some midwives being blunt; feeling disrespected, and concerns that family services may be informed. For example, one woman wrote: 'I would have felt uncomfortable disclosing anything to the midwife as I found her patronising and abrupt'. Another woman wrote: 'My 1st midwife had zero compassion and I actually felt uncomfortable throughout my whole appointment. I felt if I didn't say the answer she liked then she didn't care'. Two women were offended when their partners were asked to leave the consultation. One stated, ... 'this was OUR pregnancy therefore he should have remained present as per my request'.

Discussion

This study on women's experiences of routine DFV screening is one of the few to survey Australian women during pregnancy and report on new tools that were found to be reliable and valid. Participants reported a high level of routine enquiry (95%) by midwives. The rate of enquiry in this study was higher than the rate (90%) reported from the same maternity service 12 months previously (16), suggesting sustained effort by midwives. Most women reported positive attitudes towards, and experiences of, screening. Generally, women believe health professionals should ask about DFV. Screening in itself can be considered a low-key approach for informing and supporting women experiencing DFV (13, 19). Our findings are in line with previous research on women's attitudes towards screening. For example, Stöckl et al (8) reported a high level of acceptance (86%) of routine and case-based enquiry by pregnant women in Germany if asked by a hospital doctor. Around half of the women supported routine enquiry (56% n = 222), 36 percent (n = 140) supported case-based enquiry, while eight percent (n = 33) opposed both. Women who supported routine enquiry about DFV during the antenatal period were younger, better educated, and did not smoke during pregnancy compared to women who disagreed. This suggests that beliefs about DFV screening are aligned with other positive general health beliefs (such as smoking). Like our study, women surveyed by Stöckl et al also specified the need for a sensitive, professional approach.

While most women in the current study reported positive beliefs about DFV screening (as indicated by high mean scores), qualitative comments revealed that some women were cautious or had negative experiences. Some women may feel stigmatised when asked about DFV. Less educated and single or divorced women may already feel marginalised and may be offended when discussing risk factors such as mental health concerns or substance abuse during pregnancy (8). Salmon et al (20) using a multi- method approach reported that 96% of pregnant women found routine enquiry acceptable. However, follow up interviews with women who were experiencing abuse, revealed they may not always disclose violence at the time of asking. Women were guarded about being honest in their responses due to fear for their own safety, embarrassment, fear of the partner finding out and trepidation that a positive disclosure would result in a referral to child services.

The World Health Organization (1) recommend case-based risk assessment rather than universal routine enquiry. The low rates of disclosure in the current study support a more targeted approach. Furthermore, WHO (1) recommend that risk assessment be undertaken sensitively and embedded within a system where clinicians are trained, empathetic and non-judgemental, and there are integrated referral pathways within the hospital and to appropriate community-based agencies. Screening can be brief and integrated. For example, Hegarty et al (7) integrated DFV enquiry while screening for health and lifestyle issues among women attending general practices in Australia. Questions referred to fear of the partner rather than experience of violence. In a brief screening approach, Kim and Montano (21) simply asked Latino women if their partner had ever hit or hurt them in any way and compared this single response to the well-known Conflict Tactics Scale(22). These authors found relatively low sensitivity at 46 percent for non-disclosure by women who were experiencing violence, but high specificity (95%) whereby women who were not experiencing DFV were correctly identified. Although further research on effective approaches to case-based risk assessment is required, the benefits of enquiry within a relationship-based, continuity of midwifery care model, also warrants investigation.

Non-disclosure

The current study revealed low rates of disclosure. However, the rate of past and current violence by participants was once again higher (5.4%) than that reported previously (< 2%) with a large sample of women (n = 6670) attending the same service (16). Participants perceived that fear of the partner, shame and lack of trust with the midwife contributed to non-disclosure. A Cochrane review by O'Doherty et al (23) concluded that routine enquiry does not result in high disclosure rates but can contribute to more referrals to support services. In their 6-month follow-up evaluation study, Spangaro et al (17) explored women's attitude change, as well as useful and adverse effects of disclosure. Only seven (out of 199) women who screened positive reported adverse effects of disclosure including sadness or depression when thinking about current or previous abuse. However, 30 percent experienced positive outcomes from screening, including reflection on their situation and feeling encouraged by the level of support available to them.

A history of childhood sexual abuse

A quarter of women in the current study disclosed experiences of sexual abuse during childhood. Such childhood experiences have been associated with violence later in life. Interviews with 500 women living in sub-Saharan Africa found that nearly 40% had experienced physical and/or sexual abuse during childhood, and nearly 20% had experienced physical and/or sexual IPV during their current pregnancy(24). Perhaps predictably, these women were more likely to also report symptoms of postpartum depression. Importantly, the current study found that women who had experienced abuse during childhood or reported any current or prior experience of DFV were less comfortable discussing DFV with a midwife than those who had not. This finding highlights the importance of building a trusting relationship with vulnerable women over time, working to their strengths, and working within midwifery caseload models to support and protect the needs of women.

Comfort with routine enquiry by midwives

The current study found that women with positive attitudes towards routine enquiry were more comfortable with this process. This is similar to the results of Liebschutz, et al(25) who interviewed DFV survivors about their experiences of screening in emergency, primary care and obstetrics and gynaecology departments. Regardless of whether women disclosed,

most felt disclosure was important and dependent upon the woman's relationship with the clinician. Gender of the health professional may also influence comfort. In a cross-sectional study by Natan et al(26), 42 percent of respondents reported they would find it easier to discuss DFV with a female doctor than a male doctor.

There are numerous barriers to DFV disclosure. Best practice recommendations suggest that discussions about DFV should always occur in private, however, the routine practice of asking partners to leave the consultation was not acceptable to some women in the current study. Midwives could encourage women to come to one antenatal appointment on her own, but in practice this can be difficult to implement as maternity services increasingly encourage partners to attend antenatal appointments. Our study revealed the need for clear communication about the need and justification for privacy. Indeed, many of the comments by respondents indicated they were reassured when the midwife explained why screening for DFV was necessary.

Role of the midwife

The current study found a correlation between beliefs about DFV screening and the role of the midwife. Women agreed that midwives had a role in helping women to access specialist services, as well as provide emergency phone numbers, information, support and counselling. A high proportion of qualitative comments confirmed this view. However, women were less likely to want midwives to share information with their GP or hospital social workers. Grier and Geraghty(27) suggest that midwives can listen to 'silenced' women by establishing a trusting rapport and asking questions about DFV sensitively and with professionalism. Morse et al(28) found that health care providers often suggest that a woman 'leave the relationship' whereas, their onus of responsibility is to assess the safety of the woman and her children, determine significant risks, and provide appropriate referrals. Relatively little research has been conducted to explore the nature of the discussions that take place during screening for DFV. What is known suggests women who discuss a history of DFV are more likely to follow through with other safety measures, such as contacting a community DFV service(29, 30).

Clearly, DFV can be difficult to detect and without appropriate education and training many midwives feel unprepared to identify or respond to DFV(6, 31). Some midwives prefer to develop a relationship with women before asking about DFV. This is supported by the findings of several studies(23, 32). Developing a trusting relationship is an important element of helping women to reveal a history of violence and reinforces the importance of continuity of care for women during pregnancy.

Limitations

Data was collected from one regional maternity health service and consecutive women were approached rather than randomly selected, introducing potential bias. This may limit the degree to which results are generalizable to the Australian childbearing population. It could be that women who were not experiencing violence were more likely to complete the survey than survivors. The survey asked women to report on the first time they received routine DFV screening. Future research should consider also asking about the number of times they recall being screened and if this made a difference to their perceptions of the midwives' responses. It is also possible that participant responses may have been influenced by recall bias (given the time interval between being asked about DFV by a midwife and completing the survey). Social desirability may have also been a limitation whereby respondents answered in such a way to 'please' the researchers. DFV is a sensitive issue and some women may not be willing to disclose their experience of violence. The survey asked explicitly about childhood sexual abuse, but not physical and psychological violence. Future research should consider all forms of violence against women.

The scales are new and untested. The items explained around 40% of variance which is relatively low and indicates that other factors are at play and need to be identified in future research. In particular, the survey items did not fully capture possible reasons hindering disclosure. While the invitation to provide comment at the end of the survey revealed negative experiences and concerns of some women, a specific open-ended section after the non-disclosure scale may have prompted more issues which may have been insightful. Further research with larger samples is required to confirm some findings, and explore the efficacy of interventions that can safely support women and their children.

Conclusions and Recommendations

Most participants were appreciative of the opportunity to be asked about potential/actual violence in their families. Challenges in implementing DFV screening are still evident. There were both positive and negative consequences of routine DFV screening that ultimately relate to clinician behaviour. Not every woman received screening, the empathic communication strategies of some midwives need improvement, and strategies that enable women to feel safe to disclose and receive information and support need to be refined. Establishment of a trusting woman-midwife relationship must precede disclosure and help seeking. A better understanding of consequences can help midwives tailor screening approaches and interventions for DFV.

Although some progress has been made, the work to date within maternity as well as the broader health service has not been positioned within a guiding framework for both implementation and evaluation. Recent research indicates that the Trauma and Violence Informed Care (TVIC) framework may enable services to adopt a more strategic approach to the delivery of women centred care and optimise an integrated staff response to DFV(33). A trauma-informed systems model of care focuses on relationship building, integrated, coordinated care, reflection on the views of women and staff as well as clinical audits to improve service responses; and regular environment and workplace scans of safe spaces, sufficient time in service delivery and accurate data systems to monitor performance (34). Advocates of the TVIC framework purport that it creates safety for women by understanding the effects of past and present trauma and the close links to health and behaviours (33).

Results of this study and others(17, 18, 35) suggest that asking women about DFV has the potential to inform and influence women and can lead to benefits whether a disclosure of DFV occurs or not. A longitudinal cluster randomised-controlled study (Improving Maternal and Child Health Care for Vulnerable Mothers [MOVE]) conducted in Australia found no increase in DFV or adverse outcomes following screening. Although the nurse-designed screening and care model did not increase referrals, it did contribute to significantly increased safety planning by women over 36 months (36). While the benefits of screening continue to be debated, research suggests that any adverse effects have a minimal effect on most women. Even when women decide not to accept help, screening questions by

midwives can break the silence (37). The use of standardised measures can contribute to service improvement, enable monitoring of screening outcomes, and more importantly identify women's perceptions of the services offered.

469

470

471

472

473

474

475

476

477

478

479

480

481

482

483

484

485

486

466

467

468

There is a growing body of research demonstrating that routine DFV enquiry can have a therapeutic effect and provide opportunities for support and health education. Swailes et a al (35), for example, reported that women presenting at an Emergency Department and were currently or had recently experienced violence, found screening conducted in conjunction with meaningful counselling and referral was a helpful strategy in responding to DFV. Ongoing relationships are more likely to lead to disclosures when clinicians speak openly with women about DFV but do not insist upon disclosure (25). Our findings highlight that much DFV remains hidden and that active efforts are required to make it possible for women to talk about their experiences and seek help. Routine screening, particularly with established protocols for asking and referral, offer opportunities for women to disclose their experiences and receive help and support. Even if midwives suspect a woman is experiencing DFV, disclosure is necessary for referral and may empower women to make changes to their lives. It is important to acknowledge that leaving a violent relationship for many women is a process and disclosure itself may well be the very first stage of that process. Confiding in a midwife about a history DFV can result in increasing a woman's selfesteem as well as providing an opportunity to raise her awareness of the various sources of help that can be made available to her, such actions can be empowering in itself.

487

488

489

490

Acknowledgements and Disclosures

This study was supported by a research grant from Griffith University. We gratefully acknowledge the contribution of women who gave freely of their time to complete the survey.

491 492

493

References

- 494 1. WHO. Global and regional estimates of violence against women: prevalence and health
- 495 effects of intimate partner violence and non-partner sexual violence. Geneva: World Health
- 496 Organization; 2013.
- 497 2. James L, Brody D, Hamilton Z. Risk factors for domestic violence during pregnancy: a meta-
- 498 analytic review. Violence and victims. 2013;28(3):359. doi: 10.1891/0886-6708.VV-D-12-00034.
- 499 3. Phillips J, Vandenbroek P. Domestic, family and sexual violence in Australia: an overview of
- the issues. Canberra: Parliament of Australia; 2014.
- 501 4. Taft A, O'Doherty L, Hegarty K, Ramsay J, Davidson L, Feder G. Screening women for intimate
- 502 partner violence in healthcare settings. Cochrane Developmental, Psychosocial and Learning
- 503 Problems Group. 2013;2013(4). doi: 10.1002/14651858.CD007007.pub2.
- 504 5. Spangaro JM, J. R. Health Interventions for Family and Domestic Violence: A Literature
- Review. Sydney: University of New South Wales; 2014.
- 506 6. Eustace J, Baird K, Saito AS, Creedy DK. Midwives' experiences of routine enquiry for
- intimate partner violence in pregnancy. Women and Birth. 2016;29(6):503-10. doi:
- 508 10.1016/j.wombi.2016.04.010.
- 7. Hegarty KL, rsquo, Doherty L, Astbury J, Gunn J. Identifying intimate partner violence when
- screening for health and lifestyle issues among women attending general practice. Australian Journal
- of Primary Health. 2012;18(4):327-31. doi: 10.1071/PY11101.
- 512 8. Stöckl H, Hertlein L, Himsl I, Ditsch N, Blume C, Hasbargen U, et al. Acceptance of routine or
- 513 case-based inquiry for intimate partner violence: a mixed method study. BMC Pregnancy and
- 514 Childbirth. 2013;13(1):77. doi: 10.1186/1471-2393-13-77.
- 9. Portnoy GA, Haskell SG, King MW, Maskin R, Gerber MR, Iverson KM. Accuracy and
- 516 Acceptability of a Screening Tool for Identifying Intimate Partner Violence Perpetration among
- 517 Women Veterans: A Pre-Implementation Evaluation. Women's Health Issues. 2018;28(5):439-45.
- 518 doi: 10.1016/j.whi.2018.04.003.

- 519 10. Webster J, Creedy D. Domestic violence. Screening can be made acceptable to women.
- 520 British Medical Journal. 2002;325(7354):44.
- 521 11. Feder GS, Hutson M, Ramsay J, Taket AR. Women exposed to intimate partner violence:
- 522 expectations and experiences when they encounter health care professionals: a meta-analysis of
- 523 qualitative studies. Archives of Internal Medicine. 2006;166(1):15.
- 524 12. Spangaro JM, Zwi AB, Poulos RG, Man WYN. Six Months After Routine Screening for Intimate
- 525 Partner Violence: Attitude Change, Useful and Adverse Effects. Women & Health. 2010;50(2):125-43.
- 526 doi: 10.1080/03630241003705060.
- 527 13. Kataoka Y, Imazeki M. Experiences of being screened for intimate partner violence during
- 528 pregnancy: a qualitative study of women in Japan. (Medical condition overview) (Report). BMC
- 529 Women's Health. 2018;18(1). doi: 10.1186/s12905-018-0566-4.
- 530 14. Keeling J, Birch L. Asking pregnant women about domestic abuse. British Journal of
- 531 Midwifery. 2004;12(12):746-9. doi: 10.12968/bjom.2004.12.12.17172.
- 532 15. Koziol-Mclain J, Giddings L, Rameka M, Fyfe E. Intimate Partner Violence Screening and Brief
- 533 Intervention: Experiences of Women in Two New Zealand Health Care Settings. Journal of Midwifery
- 8 Women's Health. 2008;53(6):504-10. doi: 10.1016/j.jmwh.2008.06.002.
- 535 16. Authors. 2018.
- 536 17. Spangaro JM, Zwi AB, Poulos RG, Man WYN. Who tells and what happens: disclosure and
- 537 health service responses to screening for intimate partner violence. Health & Social Care in the
- 538 Community. 2010;18(6):671-80. doi: 10.1111/j.1365-2524.2010.00943.x.
- 539 18. Salmon D, Murphy S, Baird K, Price S. An evaluation of the effectiveness of an educational
- 540 programme promoting the introduction of routine antenatal enquiry for domestic violence.
- 541 Midwifery. 2006;22(1):6-14. doi: https://doi.org/10.1016/j.midw.2005.05.002.
- 542 19. Reeves EA, Humphreys JC. Describing the healthcare experiences and strategies of women
- 543 survivors of violence. Journal of Clinical Nursing. 2018;27(5-6):1170-82. doi: 10.1111/jocn.14152.

- 544 20. Baird K, Salmon D, White P. A five year follow-up study of the Bristol pregnancy domestic
- violence programme to promote routine enquiry2013.
- 546 21. Kim YJ, Montano NP. Validity of Single Question for Screening Intimate Partner Violence
- among Urban Latina Women. Public Health Nursing. 2017;34(6):569-75. doi: 10.1111/phn.12348.
- 548 22. Straus MA, Hamby SL, Boney-Mccoy S, Sugarman DB. The Revised Conflict Tactics Scales
- 549 (CTS2): Development and Preliminary Psychometric Data. Journal of Family Issues. 1996;17(3):283-
- 550 316. doi: 10.1177/019251396017003001.
- 551 23. O'Doherty L, Hegarty K, Ramsay J, Davidson L, Feder G, Taft A. Screening women for intimate
- partner violence in healthcare settings. Cochrane Database Of Systematic Reviews. 2015;2015(7).
- 553 doi: 10.1002/14651858.CD007007.pub3.
- 554 24. Mahenge B, Stöckl H, Mizinduko M, Mazalale J, Jahn A. Adverse childhood experiences and
- intimate partner violence during pregnancy and their association to postpartum depression. Journal
- of Affective Disorders. 2018;229:159-63. doi: 10.1016/j.jad.2017.12.036.
- 557 25. Liebschutz J, Battaglia T, Finley E, Averbuch T. Disclosing intimate partner violence to health
- 558 care clinicians What a difference the setting makes: A qualitative study. BMC Public Health.
- 559 2008;8(1):229-. doi: 10.1186/1471-2458-8-229.
- 560 26. Ben Natan M, Ben Ari G, Bader T, Hallak M. Universal screening for domestic violence in a
- department of obstetrics and gynaecology: a patient and carer perspective. International Nursing
- 562 Review. 2012;59(1):108-14. doi: 10.1111/j.1466-7657.2011.00931.x.
- 563 27. Grier G, Geraghty S. Intimate partner violence and pregnancy: How midwives can listen to
- silenced women. British Journal of Midwifery. 2015;23(6):412-6. doi: 10.12968/bjom.2015.23.6.412.
- 565 28. Morse DS, Lafleur R, Fogarty CT, Mittal M, Cerulli C. "They told me to leave": how health care
- 566 providers address intimate partner violence. Journal of the American Board of Family Medicine:
- 567 JABFM. 2012;25(3):333. doi: 10.3122/jabfm.2012.03.110193.

- 568 29. Bair-Merritt MH, Lewis-O'connor A, Goel S, Amato P, Ismailji T, Jelley M, et al. Primary Care-
- 569 Based Interventions for Intimate Partner Violence: A Systematic Review: A Systematic Review.
- 570 American Journal of Preventive Medicine. 2014;46(2):188-94. doi: 10.1016/j.amepre.2013.10.001.
- 571 30. Swailes AL, Lehman EB, McCall-Hosenfeld JS. Intimate partner violence discussions in the
- healthcare setting: A cross-sectional study. Preventive Medicine Reports. 2017;8:215-20. doi:
- 573 10.1016/j.pmedr.2017.10.017.
- 574 31. Mauri EM, Nespoli A, Persico G, Zobbi VF. Domestic violence during pregnancy: Midwives'
- 575 experiences. Midwifery. 2015;31(5):498-504. doi: 10.1016/j.midw.2015.02.002.
- 576 32. Finnbogadóttir H, Dykes A-K. Midwives' awareness and experiences regarding domestic
- 577 violence among pregnant women in southern Sweden. Midwifery. 2012;28(2):181-9. doi:
- 578 10.1016/j.midw.2010.11.010.
- 579 33. Quadara A. Implementing trauma-informed systems of care in health settings: The WITH
- study. State of knowledge paper. Sydney: ANROWS, 2015.
- 581 34. Wilson A, Hutchinson M, Hurley J. Literature review of trauma-informed care: Implications
- for mental health nurses working in acute inpatient settings in Australia. International Journal Of
- 583 Mental Health Nursing. 2017;26(4):326-43. doi: 10.1111/inm.12344.
- 584 35. Swailes AL, Lehman EB, Perry AN, McCall-Hosenfeld JS. Intimate partner violence screening
- and counseling in the health care setting: Perception of provider-based discussions as a strategic
- response to IPV. Health Care for Women International. 2016;37(7):1-12. doi:
- 587 10.1080/07399332.2016.1140172.
- 588 36. Taft AJ, Hooker L, Humphreys C, Hegarty K, Walter R, Adams C, et al. Maternal and child
- health nurse screening and care for mothers experiencing domestic violence (MOVE): a cluster
- 590 randomised trial. BMC medicine. 2015;13(1):150. doi: 10.1186/s12916-015-0375-7.
- 591 37. Nelson HD, Bougatsos C, Blazina I. Screening Women for Intimate Partner Violence: A
- 592 Systematic Review to Update the US Preventive Services Task Force Recommendation. Annals Of
- 593 Internal Medicine. 2012;156(11):796-+. doi: 10.7326/0003-4819-156-11-201206050-00447.