Understanding staff views and experiences of a clinical practice change to reduce stillbirth in South Asian born women: A cross-sectional survey

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Abstract

Background: To capture the views and experiences of clinical staff following the implementation of a new clinical guideline aimed at reducing stillbirth at term in South Asian women, to identify barriers to implementation.

Methods: Cross sectional survey of clinical staff providing maternity care, including midwives, obstetricians and shared-care general practitioner at a Victorian metropolitan university-affiliated teaching hospital caring for about 10,000 women per year at three separate hospital sites. Staff were asked to provide their agreement with ten statements assessing: perceived need for the guideline, implementation processes, guideline clarity, and clinical application. Two open-ended questions provided opportunities to express concerns and offer suggestions for improvement.

Results: 120 staff completed the survey, the majority (n=89, 74%) of which were midwives. The majority of staff thought the guideline was clear with respect to the rationale (n=95, 79%,), the criteria for whom they applied (83%, n=99), and the procedures and instructions within the guideline were clear (74%, n=89). However, staff reported an increase in workload following the implementation of the guideline (72%, n=86) and expressed concerns related to rationale and evaluation of the guidelines, lack of education for staff and women, increased workload and insufficient resources, and patient safety and access to care. Challenges relating to shared decision making and communicating with women whose first language is not English were also identified.

Conclusion: This assessment of staff views and experiences of a new clinical practice guideline has identified key barriers to and opportunities for improving implementation. It has also highlighted additional challenges relating to new clinical guidelines which focus on culturally and linguistically diverse (CALD) women.

Background

Reducing stillbirth has become a key health priority in high income countries such as Australia and the UK (1). In 2015, the *Saving Babies Lives* bundle of care was introduced in the UK and resulted in a 20% fall in the rate of stillbirth in England and 22% fall in Scotland (2). In 2018, the Australian federal senate inquiry into stillbirth recommended a national action plan to reduce stillbirth in Australia (3). The implementation of the *Safer Baby Bundle* of care (4) to prevent stillbirth is now underway in Australia. A key pathway to reducing stillbirth rates in Australia, and other high income countries is by reducing the rates of stillbirth in culturally and linguistically diverse (CALD) women, a group who have been shown to have higher rates of stillbirth than other women in high income countries (5–9).

In July 2017, Monash Health, Victoria's largest maternity service caring for ~ 10,000 women per year across three sites, implemented a new clinical practice guideline to reduce the rates of term stillbirth in women of South Asian background (Supplementary file 1). Monash Health had previously shown that South Asian women giving birth under their care had a higher rate of stillbirth than other women (10), a

finding subsequently confirmed for all of Victoria (11) and Australia(12, 13). Southern Asia represents the largest group of migrants currently coming to Australia annually (14). As a consequence, the number of women giving birth in Australia who were themselves born in the southern Asian region is increasing. In 2017 over 23,000 women from southern Asia gave birth in Australian representing 7% of the Australian maternity population (15). There is growing evidence to suggest that the higher rate of stillbirth at term in South Asian-born women is due to differences in pregnancy length and feto-placental maturation. South Asian women have, on average, a 1 week shorter duration of pregnancy (11), higher rates of fetal compromise in late pregnancy and during labour(16), and babies that are more functionally mature at preterm gestations (17). Reflecting these local insights, the maternity program at Monash Health sought to implement a simple change in clinical practice to reduce the rate of term stillbirth in South Asian women. That change was to offer South Asian women “post-term” fetal surveillance – twice weekly amniotic fluid index assessment and cardiotocography (CTG) – from 39 weeks’ gestation, instead of from 41 weeks as is the case for other women. To support the change in practice a revised guideline was developed and introduced in mid-2017 (Additional File 1). The impact of the change in practice on clinical outcomes will be reported separately.

Methods

Aim

Here, we report an assessment of the views and experiences of the clinical staff following the implementation of the revised guideline with a view to identifying barriers to implementation of a clinical practice change that specifically focuses on one culturally and linguistically diverse (CALD) group.

Study Design

A cross-sectional survey of Monash Health Staff.

Study Population

Clinical staff providing maternity care at Monash Health, including midwives, obstetricians and shared-care general practitioners. Monash Health is a metropolitan university-affiliated teaching hospital caring for about 10,000 women per year at three separate hospital sites. No formal sample size calculation was performed. All staff were invited to complete the questionnaire.

Staff Survey

A questionnaire was specifically written to assess the experiences of staff with the new post-term surveillance guideline. The questionnaire captured the profession of the respondent, how long they had worked with Monash Health and at which site, and whether they had had direct experience using the guidelines. Staff were then asked to indicate on a five-point Likert scale their agreement with the following 10 statements:

1. There is a need for these clinical care guidelines at Monash Health.
2. Monash Health staff need extra education or information about the new guidelines.
3. The rationale for the guidelines is clear
4. The criteria for who the guidelines apply to are clear
5. The procedures and suggested processes are clear
6. The introduction of the guidelines has increased my workload directly
7. The introduction of the guideline has affected the care of other women in a negative way
8. I think the new guidelines are a good thing
9. I think they have improved the care of women
10. My experience of the guidelines has been positive

Two open-ended questions were included to identify any concerns and make suggestions for improvement. All Monash Health maternity staff were invited, by an email to their workplace email address, by the Director of maternity services to complete the online questionnaire via Survey Monkey. A reminder email was sent to encourage participation. Consent was indicated by completing and submitting the on-line survey. Participation and responses were anonymous. Data were collected over a one-month period in August 2018, 12 months after the guidelines were first implemented.

Data was exported into SPSS and the characteristics of the respondents (profession, years' work at Monash Health, experience with the guidelines and sites they work at) were tabulated. The frequency and proportion of strongly agree, agree, neither disagree nor agree, disagree or strongly disagree were described for each of the survey questions. The categories "strongly agreed and agreed", and "strongly disagreed and disagreed" were combined respectively. Open ended responses were assessed independently by 2 investigators and similar responses were grouped together to identify themes of concerns and suggestions.

Results

A total of 120 staff completed the survey. The characteristics of those who completed the survey are presented in Table 1. The majority of respondents (71.7%, n = 86) were midwives and 17% (n = 20) percent of staff were obstetricians. The median time staff had worked at Monash Health was 8 years (IQR 3–13 years) and 60% (n = 70) of them worked at the larger Clayton site. A number of staff worked across more than one site. The response rates were highest for midwives at the Casey site (58%) and Obstetric staff (88%) at the Dandenong site compared to the other sites respectively (Midwives response rate: 22% Clayton, 38% Casey and Obstetric response rate: 44% Casey and 24% Clayton). Almost everyone (96%) who completed the survey had direct experience using the guideline.

Table 1
Characteristics of Staff Surveyed

	n = 120
Profession	
Midwife	86 (73.50%)
Obstetrician	20 (17%)
GP-Obstetrician	1 (0.85%)
HMO/Registrar	10 (8.6%)
Number of years working at Monash Health	
Median (IQR)	8 (3–13)
Site*	
Clayton	70 (60%)
Dandenong	35 (30%)
Casey	34 (29%)
Experience using guideline	
Yes	115 (96%)
No	2 (2%)
Not reported	3 (2%)
Number (%) unless otherwise stated	
*note some staff worked across multiple sites.	

Responses to the 10 statements are presented in Table 2. The majority (81%, n = 97) of staff agreed that there was a need for these clinical guidelines at Monash Health but almost 60% (n = 67) reported that additional education for staff about the guidelines was needed. When considering the content and procedures within the guidelines, the majority of staff thought the reason the guideline existed was clear (79%, n = 95), the criteria to define who they applied to was clear (83%, n = 99) and the procedures and instructions within the guideline were clear (74%, n = 89). Staff reported an increase in workload following the implementation of the guideline (72%, n = 86). Despite this, the majority (65%, n = 78) agreed that the guideline implementation was a good thing. Fifty-six percent (n = 67) of staff agreed the guidelines had improved the care of south Asian women, 28% (n = 34) neither agreed nor disagreed and 8%(n = 10) did not believe they had improved outcomes. One quarter of staff (n = 30) surveyed also believed the implementation of the guideline had negatively impacted the care of other women at the Monash Health. Overall almost half of staff surveyed (47% (n = 55)) said their experience with the guidelines was positive,

34% felt indifferent (n = 41) and 12% (n = 14) reported their experience of the guidelines was negative. For all questions between 9 and 11 staff (8%) did not indicate their agreement or disagreement.

Table 2
Staff Agreement experience statements

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly disagree	Did not answer
There is a need for these clinical care guidelines at Monash Health.	39(33%)	58(48%)	8(7%)	3(3%)	2(2%)	10 (8%)
Monash Health staff need extra education or information about the new guidelines.	16 (13%)	51(43%)	24(20%)	19(16%)	0(0%)	10 (8%)
The rationale for the guidelines is clear	24(20%)	71(59%)	10(8)	6(5%)	0	9(8%)
The criteria for who the guidelines apply to are clear	24(20%)	75(63%)	6(5%)	3(3%)	1(1%)	11(9%)
The procedures and suggested processes are clear	12(10%)	77(64%)	14(12%)	7(6%)	0(%)	10(8%)
The introduction of the guidelines has increased my workload directly	42(35%)	44(37%)	15(12%)	10(6%)	0(0%)	9(8%)
The introduction of the guideline has affected the care of other women in a negative way	10(8%)	20(17%)	30(25%)	43(36%)	7(5%)	10(8%)
I think the new guidelines are a good thing	14(12%)	64(53%)	23(19%)	7(6%)	2(2%)	10(8%)
I think they have improved the care of women	9(8%)	58(48%)	34(28%)	7(6%)	3(3%)	9(8%)
My experience of the guidelines has been positive	5(4%)	51(43%)	41(34%)	11(9%)	3(3%)	9(8%)

Staff Concerns Identified In Open Ended Questions

Overall just under half (46%, n = 55) of staff surveyed reported concerns about the guidelines, the majority of these concerns were from midwifery staff. Staff concerns related to (i) increased workload and insufficient resources to meet the changes in care; (ii) potential harm and/or patient safety; (iii) accessing the monitoring; (iv) scientific rationale and evaluation of the guidelines; and (v) staff knowledge, education and communication.

Increased workload and insufficient resources

Overwhelmingly an increase in workload, lack of resources, a lack of available appointment times, short appointment lengths, only one of the 3 health service sites able to offer the monitoring and increased numbers of inductions performed were reported by staff as concerns. Concerns about workload were also linked with safety concerns. Examples of comments made include:

'If the research indicates that this is a positive move for the safety of babies then these guidelines are a good thing, however, the extra workload that it has created needs to be addressed.' [ID001]

'Increased workload directly on Fetal Monitoring Unit MMC and birth suites with no change to infrastructure or staffing in either of those units'. [ID079]

'It would be nice to have more resources to enable the smooth running of our birth unit- often we have a build-up of women waiting to have monitoring & plans put in place. I don't think this is a particularly safe option.' [ID094]

Potential harm and/or patient safety

Concern that the increase in workload was putting women at risk was also reported. This related to additional harms due to the increased intervention and stress placed on women. A number of staff were also concerned women would not access care if they experienced reduced fetal movements if they had a routine monitoring appointment booked. Examples of comments include:

'Impact on workload and having enough resources to provide the care required either for the amount of monitoring or the increased demand for induction of labour spaces - which could put other women at risk. This also adds to stress for the women and staff, when trying to facilitate the extra scans/CTGs/IOL required under the new policy and having to negotiate and prioritise which patient is most urgent, with the limited spaces available.' [ID043]

'Concerned that women are awaiting fetal monitoring appointment instead of utilising PAU (Pregnancy Assessment Unit) to report reduced fetal movements' [ID096]

Accessing the monitoring

Access to care was also highlighted as a concern. This included difficulties for South Asian women to attend a different health service site for their monitoring and also other women, who were unable to access monitoring due to the increased demand. Examples of comments made include:

'*Inconvenience caused: Some women who require travelling from other sites to Clayton for their twice weekly monitoring found the demand excessive and inconvenient. Many partners needed to take time off work in order to bring the women to Clayton.'* [ID086]

'*Not the guideline per se....BUT The guideline has significantly impacted the workload of birthing units esp for IOLs, increased workload for managers, decreased timely access to care for other Non-SA women, created frequent capacity issues.'* [ID108]

Some staff also detailed concerns relating to the monitoring only being available at one location, thus fragmenting the care of women. An increase in wait times for women other than those from South Asia were reported and concern that staff may not use their clinical judgment. Examples of comments made include:

I believe this has impacted on the level of care to other women with longer wait times and poorer care due to the increase in workload'. [ID006]

'they sometimes take away from good clinical judgement' [ID051]

'It has fragmented care for women with the location of monitoring often away from site of booking.' [ID108]

Scientific rationale and evaluation of the guidelines

Staff reported concerns about the rationale underpinning the need for earlier monitoring, the number of monitoring episodes performed and whether they were improving outcomes or causing harm. Examples of comments include:

'A comparison between the perinatal outcomes in this specific ethnic group before and after the guideline implementation needs to be conducted in order to evaluate whether the guideline has a positive impact on the perinatal outcomes.' [ID098]

'I think more research needs to be done on whether placentas do in fact "age", as this may cause certain decisions to be made that may not be relevant.'[ID029]

Staff Knowledge, Education and Communication

Staff reported concerns around the lack of education about the guidelines. This included why they were being implemented and who they specifically applied to. Examples of comments include:

'Ongoing education of medical and midwifery staff is essential to ensure the guidelines are applied to the correct group of women, and to make sure the rationale is explained to each woman so informed patient choice is possible.' [ID069]

There was noticeable inconsistency of levels of understanding amongst staff (ie not understanding the frequency of monitoring, not understanding the commencement for monitoring, mistaken non South Asian countries as South Asia, and confusion in commencing other non South Asian women's monitoring at different gestation).' [ID086]

'Are women of Indian descent but born in Malaysia or Fiji, for example, still considered to require earlier post term monitoring?'[ID092]

The challenges of explaining a new clinical practice to South Asian women and ensuring informed consent was also highlighted by staff. Examples of comments include:

'Explaining same to women whom English is not their main Language and even when using an Interpreter to explain same to them they do not always fully understand reason for same.'[ID030]

'Women are not given alternative options and true informed consent. Induction of labour has become routine for these women without risks v benefits being fully discussed including the cascade of intervention, increased risk of epidural, forceps, ventouse, and CS. Women of any SE Asian descent even if they don't necessarily identify fully with this label and not counselled (ie mixed race, born and raised in Australia). These guidelines are not individualised which lends them to being discriminatory in nature to one ethnic group.' [ID036]

Staff Suggestions For Improvement Identified In Open Ended Questions

Fifty-one staff also provided suggestions for improvement, including: (i) increasing staffing and resources; (ii) information and communication to support informed decision-making; (iii) making changes to the guideline; and (iv) evaluating impact of the guidelines. Examples of comments for each theme are given below.

Increasing staffing and resources

An increase in the numbers of staff, resources available including additional monitoring sites and increased appointment times were suggested as improvements. Examples of comments include:

'Provide more resources to accommodate the increased workload that is expected. It is not possible to provide quality care and accommodate the changes needed if there are insufficient resources.' [ID043]

'needing more time in Antenatal clinic appointments to discuss these aspects of care & their importance' [ID111]

Greater number of sites offering post dates monitoring' [ID014]

Information and communication to support informed decision-making

Staff also indicated that improved educational materials for women in their native language are needed to ensure women understand, are not unnecessarily concerned and to ensure informed consent. Examples of comments include:

‘information fact sheet for south Asian women to take home and read. In multiple appropriate languages.’ [ID009]

‘A clear and concise handout for the women affected, explaining the rationale and reminding women strongly that the choice of management remains with her.’ [ID056]

‘Continuing emphasis of the importance of fetal movements to our patients and of the need to report decreased fetal movement as quickly as possible.’ [ID078]

Staff also highlighted the desire for more staff education and training, clearer more detailed information on who the guideline applies to, and how to have conversations with women about the additional monitoring. Examples of comments include:

‘Before any guidelines being introduced, education sessions should be provided to team leaders/senior staff of the units/departments. If there is any revision of the guidelines, the new revised guidelines should be highlighted and well communicated to all staff to prevent any inconsistency and confusion.’ [ID086]

‘*Better education with the implementation of the guideline to assist junior staff in providing balanced counselling*. [ID119]

Changes to the guideline

A number of suggestions were made by staff to improve the guideline. These included a reduction in the number of scans performed, the addition of other monitoring approaches and different monitoring approaches depending on the initial monitoring results. Examples of comments include:

‘and the right for women to ask for weekly scans if they have a normal or above normal AFI and continue with CTGs twice a week as a lot of women have concerns around the increased ultrasounds during pregnancy.’ [ID067]

‘Perhaps inclusion of MCA Doppler measurement’ [ID035]

Evaluating impact of the guidelines

Evaluation of the impact of the guideline was also suggested as an improvement. Examples of comments include:

‘Suggest continued review of the outcomes in terms of improvements or reductions in stillbirth so that any improvement can be quantified over time. If no improvement is demonstrable, the guidelines should be reviewed. I expect that this is already planned.’ [ID090]

Discussion

In this study we sought to explore the views and experiences of clinical staff following a change in clinical care specific to South Asian women, with a view to using those insights to inform the further development and implementation of improved clinical practice nationally. In particular, the we identified key barriers to and opportunities for improving the implementation of changes to clinical practice affecting South Asian women.

South Asian born women represent the largest group of non-Australian born women giving birth in Australia. In 2017 over 23,000 women from Southern Asia gave birth in Australia (15), up from 11,000 five years prior (18) with the majority of South Asian born women giving birth in Victoria (36%) and New South Wales (34%)(15). It has been widely reported in Australia that South Asian born women experience higher rates of stillbirth, particularly at term (11, 12, 19, 20). Findings from a recent survey of 83 Australian hospitals identified that services wanted specific guidelines relating to the prevention of stillbirth for women of different ethnicities (21). One third of all births at Monash Health is to a woman of South Asian background. It was therefore unsurprising that most staff agreed that there was a need for a specific guideline to care for South Asian born women at the end of pregnancy. This is important. The relevance of a specific clinical practice guideline to a health service setting is a key requirement of successful implementation(22). The desire for a change in clinical practice for South Asian may be less at services with a lower proportion of South Asian women giving birth. Despite this, staff reported wanting more specific education about the guidelines. Specifically, this included clarification of what constitutes South Asian ethnicity (as opposed to maternal country of birth), how to speak with South Asian women about the guidelines and earlier and increased communication about the guidelines to staff prior to implementation. As the new guideline was an adaption of a current clinical guideline at the health service minimal specific education was provided to staff the time of implementation. Clinical education strategies to improve successful implementation (active learning from experts, workshops and presentations, information pamphlets and posters) have been well studied (23) and should be integrated into future implementation strategies. Reassuringly, staff felt the information and instructions provided in the guideline were clear. The guideline was built on the previous clinical practice guideline at the service on the ‘Management of Prolonged Pregnancy’. This means that for staff, it was provided to them in a format that was familiar and accessible to them. Ensuring guidelines are as “user friendly as possible” is an important consideration for successful implementation(24).

Overwhelmingly staff reported an increase in their workload. Staff also highlighted a lack of resources to accommodate the increased monitoring specified in the guidelines and concern that this may have a negative impact on the care and outcomes of all women. These findings mirror what was reported in the UK following the *Saving Babies Lives* implementation, where the majority of staff reported an increase in ultrasound and induction and an awareness of being understaffed and under-equipped to maintain safety (2). A systematic review of 27 studies confirmed that burnout and poor wellbeing among staff is associated with poor patient safety outcomes (25). High rates of mental health conditions and suicide amongst health care workers are increasingly being recognised as a public health priority. Taken together these findings highlight the importance of planning and appropriately resourcing services to ensure staff are able to follow the guideline/s in a way that is both safe for them and the women they care for. Staff

also reported concerns that the extra monitoring they were doing was excessive, was not improving outcomes and may be harmful. The clinical guideline implemented utilised the common tests of fetal wellbeing at term, cardiotocography (CTG) and an assessment of amniotic liquor volume (AFI) on ultrasound that were already in use at the health service. Clinicians are aware of their poor sensitivity and predictive value (26). This likely explains the mixed perceptions of the benefits of the guidelines reported overall and the suggestion to evaluate the impact of the practice change and refine the guideline accordingly. A recent study of 277 mental health workers in Australia identified that feedback to staff can counteract or buffer the negative impact of job demands on staff wellbeing (27). Audit and feedback provided at an interval of monthly, was shown in a Cochrane review to be preferable (28). Improving education and knowledge of the benefits of the guideline also ensures its continued implementation (23). Providing clinicians with regular timely feedback on patient outcomes should be incorporated into the future implementation strategies.

The provision of education for women and pamphlets printed in different languages were also highlighted as a suggestion for improvement. These were not provided as part of the implementation of the new guidelines but should be considered in the future. It is also important to ensure these resources are culturally and linguistically appropriate. Staff highlighted concerns regarding presenting the information to women in whom English is a second language, poor understanding leading to confusion and worry and implications for informed decision making. Barriers relating to accessing a different health site was also highlighted with some women living a large distance for the service where public transport was not available or required their partner to drive them. Any future implementation strategies should seek the advice and guidance of individuals and groups with expertise in this area to ensure these barriers are minimised.

This study had a number of limitations. The majority of staff who responded worked at the larger Clayton campus. At the time the guidelines were implemented all monitoring was undertaken at the Clayton campus, therefore staff at the Clayton campus were more likely to be impacted by the implementation. This also is reflected in the open-ended comments suggesting offering the monitoring at other sites. Completion of the survey was not compulsory. Our response rate varied across the sites and by profession. It is possible that only staff with strong views may have completed the survey, this may have biased the overall perceptions of staff at Monash Health. That said staff who may have been negatively impacted are best placed to identify barriers to implementation. Recall bias may also be an issue given the survey was administered 12 months after implementation, however this also allowed time for all potential barriers and challenges to be experienced. There is also the possibility that staff who experienced the implementation may have left Monash health in this time. The survey was administered via an email to staff work email addresses; it is possible that staff may not regularly access these accounts to see the survey invitation. A final limitation of this study is that the views and experiences of the women themselves were not assessed. This should be the focus of future research and captured with future implementation strategies.

Conclusions

This survey of staff 12 months post implementation of a clinical practice guideline to reduce stillbirth in South Asian born women identifies the successes and problems associated with implementing a new clinical practice change. The key challenges identified related to increased workload and resourcing and lack of education for staff and women. The need for additional education in communication with women where English may not be their first language and understanding other barriers women may have to accessing new care were also identified. Our observations mirror those from the evaluation of other clinical practice implementation approaches to reduce stillbirth internationally (2) and highlight additional considerations when implementing a practice change for CALD groups.

Declarations

Ethics approval and consent to participate: This low risk research was approved by The Human Research Ethics Committee of Monash Health (HREC/18/MonH/172).

Consent for publication: Not applicable. All quotes provided are de-identified.

Availability of data and materials: The dataset supporting the conclusions of this article is included within the article as Additional File 2.

Competing interests: All authors declare no competing interests.

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Supplementary Files

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