



Maternal health promotion in Samoa: views of pregnant mothers.

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ABSTRACT:

Background: Child health and maternal health are priority areas for Samoa. Good maternal health is critical for the welfare and survival of the household especially for children who rely on their mothers for their basic needs. We aimed to identify positive and effective mechanisms of advice and support that would improve the experiences of pregnancy for mothers, and improve health outcomes for mothers and babies.

Methods: A qualitative approach was used with five focus group discussions with pregnant women (N=32). All the focus groups were held in five different medical clinics: four in Upolu and one in Savai'i. Interviews were transcribed and translated from Samoan to English and accompanying notes taken. Data were analysed using thematic analysis. Key themes which emerged provided categories which assisted in sorting of more comments to provide understanding and context to the participants' views.

Findings: Pregnant women cited physical symptoms, a lack of knowledge or understanding of pregnancy, relationship issues, barriers to accessing health care and stress as the main issues. Travelling long distances by boat and buses for scans and appointments was challenging for most. Waiting times in clinics were long, with little information available in Samoan on television screens or in pamphlets. Many women felt they couldn't ask questions of the midwives/doctors and often the most prominent issues for women were in relation to relationships and mental wellbeing.

Conclusions: A lack of funding and transportation were identified as barriers to implementing a sustainable programme to help pregnant women. Clinics should be set up closer to where their clients live in order to minimise travel. The waiting times in clinics could be utilised to have pregnancy information displayed via videos along with pamphlets with the proviso they be in plain Samoan.

Key Words: maternal health, child health, Pacific, Samoa, pregnant women, qualitative

BACKGROUND

It is widely anticipated, that Sustainable Development Goal number three (health and wellbeing for all) will ensure that maternal and child health remains a priority. Good maternal health is critical for the welfare and survival of the household, especially for children who rely on their mothers for their basic needs. Since Samoa became a signatory to the Millennium Declaration, there has been a steady overall progress across all these goals.¹ In 2011, Samoa is one of the four Pacific countries to achieve the targets of the Millennium Goals alongside Niue, the Cook Islands and Palau.²

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In both Demographic Health Surveys in 2009 and 2014, 93 percent (93%) of woman who had a child five years preceding the survey had received antenatal care during their most recent pregnancy from a trained health provider (i.e., doctor, nurse, midwife or nurse aid).^{3,4} Antenatal visits have also increased from 58 percent (58%) of women having four or more antenatal visit in 2009³ to 73 percent (73%) in 2014.⁴

The proportion of women who did not access any antenatal support in the duration of their most recent pregnancy also decreased from four percent (4%) in 2009 to three percent (3%) in 2014.^{3,4} However, it was evident that women with higher levels of education and with higher wealth index were more likely to use antenatal care services.

The same surveys also showed that women were receiving antenatal care much later in their pregnancy. Data from surveys in 2009 and 2014 showed little difference in access to antenatal care in their first trimester between 2009 (13%) and 2014 (12%).^{3,4} The majority of women (78%) attended their first antenatal visit during their second trimester and six percent (6%) went during their eighth month of pregnancy or later.⁴ These figures show that a significant proportion of women are missing out on vital information and services that could prevent complications during pregnancy and enhance the wellbeing of their families.

Overall, there has been a steady progress towards reducing maternal mortality rate (Millennium Development Goal (MDG) number five) since 2005. Over the period of 2002-2006, the maternal mortality rate (MMR) was recorded at 46 per 100,000 live births.¹ In 2015, the MMR was at 51 per 100,000 live births,⁵ indicating some reduction from the baseline of 74 per 100,000 live births but still short of the MDG target of 24 per 100,000 live births.

The Ministry of Health aims to decrease the maternal mortality rate and improve overall maternal health outcomes.⁶ One strategy implemented was to recognise the valuable contribution of traditional birth attendants by providing ongoing training on maternal health services. In 2002, this partnership has translated to 330 mothers attended by traditional birth attendants, about 9% of total births for the year.⁷

As Samoa moves forward to attaining the Sustainable Development Goals (SDG), the nation can build on previous gains and success resulting from efforts to achieve the MDGs. Achieving continued progress seems to have been largely impeded by limited access to reproductive

health, as indicated by low contraceptive use (29%) and increasing birth rate among adolescents.⁸ Samoa's fertility rate is the highest compared to other Pacific countries at 5.1 children per woman^{4,9} and adolescent fertility rate (for women aged 15 to 19) also remains high at 44 per 1,000 in 2009³ and 56 per 1,000 in 2014.⁴ More research is needed to explain the increase in teenage pregnancies, although low contraceptive use is likely to be a major contributing factor.

Health officials and community representatives agree that awareness campaigns are essential not only to increase contraceptive use, but also in educating expectant mothers of pregnancy risks and general awareness on safe pregnancy practices.^{1,7} Partnerships with community-based organisations could also potentially be utilised in raising community awareness.¹ Samoan Women's Health Committees have historically made a very real improvement in maternal and child health, but their involvement in this area has waned over the years due to changes in their links with the health sector.¹⁰

This paper presents an analysis of Samoan mothers and pregnant women's experiences, expectations and aspirations for their pregnancy to identify how best to improve health outcomes for mothers and babies.

METHODS

Study design

A series of focus groups were conducted in October 2015 and February 2016 in Samoa. Focus groups were selected as an appropriate method to explore unsolicited perspectives on maternal health information needs and knowledge. The development of the interview protocol was conducted following a detailed literature review and an initial scoping exercise (workshop) with key stakeholders in Samoa in 2014. Protocol development, consultations and interviews were led and conducted by Samoan health professionals. Stakeholder engagement was a critical facet of this project to ensure effective translation of results into consideration for policy and practice.

Ethics approval was granted from both The University of Auckland Human Participants Ethics Committee on the 19th of August 2015 (reference no. 015289) and The Ministry of Health Samoa research ethics committee on the 19th of June 2015.

Sampling and recruitment

Stakeholders were also consulted for guidance on sampling to ensure an equitable representation of women from both rural and urban settings in both Upolu and Savai'i. Mothers from a range of age groups and parity/gravida (number of pregnancies/live births) were also purposively sampled. Stakeholders (midwives from various clinics on both Islands) took the lead to invite mothers from within their clinic to participate in a focus group interview. Each participant was given a participant information sheet and consent form with verbal explanations from the research team in either Samoan or English, as preferred by the interviewees. All focus groups were held in five clinics across the Upolu and Savai'i, including the central hospital antenatal clinic in Apia.

Data collection

Interviews were on average of 90 minutes duration and were recorded by a digital audio device and subsequently transcribed. A general set of questions were used as a guide for prompting discussions about mothers understanding of health, any concerns they have, and their information and/or help seeking behaviours. The topics discussed during the focus groups included, but were not strictly limited to the following: What does it mean to be 'healthy' during pregnancy; Who/what do you seek advice and support from during pregnancy/parenting (and when and/or where)? Why do you seek advice and support this way? What stops you from seeking advice and support from this source? Or any other way? Have you received advice through media or distributed resources? If so, can you describe them? How did you find the information? If you didn't follow the advice, why? Who do you approach when you are worried, anxious, feeling sad (if anyone)? Notes taken during the focus group discussion were included in the final analysis

Data Analysis

Two research team workshops were held to carry out an inductive thematic analysis of the findings using the transcriptions and notes taken from the discussions. Key themes which emerged provided categories which assisted with the sorting of comments to provide a greater understanding of which themes were the most commonly discussed and in what context.

FINDINGS

In total six of focus groups were conducted, involving 32 women. Our analysis determined that four persistent themes emerged from the analysis of the focus group data; common understanding of a 'healthy pregnancy'; mental health and stress; accessing pregnancy services; and sourcing information.

Common understanding of a 'healthy pregnancy'

Pregnant mothers' current understanding of a healthy pregnancy reflects both implicit and/or experiential knowledge and health promotion messages which culminated in a general awareness of what is a healthy pregnancy. This advice was often very general with mothers referring to the importance of good nutrition, keeping active and not smoking or drinking alcohol. Maintaining good physical health was a general theme across the focus groups with mothers referring to the consequence of the mother's health and behaviours on that of the baby's. The most commonly mentioned advice was in relation to good nutrition:

We should eat foods that will ensure the good health of your baby.

There are foods that she can't eat, and foods she can eat.

Right now I feel strong, I feel able to do chores, and to eat well. I don't really have an appetite for chips or soft drinks. I can feel baby moving all the time.

Good nutrition advice included not eating fatty foods or sugary foods (or consuming sugary drinks) and choosing healthier options such as vegetables and soups.

Make the effort to walk and to eat the right foods.

I'm strong when I move around, when I sit my body feels weak when I don't move around. Everything is right when I work and move around.

It is good to listen to the doctors/midwives advice regarding not smoking and not drinking alcohol which affect the unborn baby.

Keeping germ-free and avoiding chemicals/toxins was mentioned in one focus group with one mother citing her occupation as a hairdresser as a potential risk to her unborn baby. Other factors, including spacing were also

cited as important to a healthy pregnancy. Mothers in two out of five groups also referred to the importance of spacing children:

The importance of spacing between one pregnancy and the next. Should have good health for each pregnancy.

Mental health and stress

By discussing the mothers pressing thoughts and concerns, a picture was built of other factors that impacted on the women's health and wellbeing. Consistently across all focus groups, references were made to relationships with their partners or other family members, and how these relationships often presented challenges for them during their pregnancy. Sometimes the pregnancy itself prompted shifts in expectations on the mother and/or their partner. Mothers also placed a strong emphasis on the need to remain stress-free and keeping a positive frame of mind despite any issues they encounter. Relationship with the husband was consistently considered both a stressor and important to healthy pregnancy and wellbeing.

I should protect the relationship between me and my husband, me and my children... but more importantly me and my husband.

In a few cases, the women's sharing alluded to a harmful relationship although no-one admitted to being abused physically, even though they talked about 'other women' they knew being in abusive relationships. There are significant implications for maternal health promotion and support that clearly acknowledges and addresses the importance of mental health and wellbeing that is sometimes synonymous with a woman's experiences of close relationships either with their partner or family. In some cases, the women's partner was her greatest source of strength, trusting him with her concerns and sharing responsibilities together, further reiterating the importance of healthy relationships during pregnancy.

Living free from stress/problems within the family, not only for myself but also my children ... that they will live safe and happy.

Interestingly, relationship issues and concerns were more prevalent in discussions than any references to socioeconomic determinants. Some mothers did refer to issues such as stress which came from trying to provide for their family, but often these were mentioned in

reference to their relationship with others. Mothers who had other children talked about trying to pay them enough attention and to care for them while pregnant with another child, while other mothers talked about the need to continue to work during pregnancy either paid work or chores they were expected to carry out. The need for greater appreciation of the importance of pregnancy and the role that families and communities can play in positively supporting a pregnant women is a potential prevention programme for maternal and subsequently infant and child health.

This understanding was occasionally synonymous with religious and/or spiritual beliefs that prayer or offering up their issues and concerns to God was an important way of remaining healthy during pregnancy. When probed further however, some details became hazy and there was a lack of understanding of the physiological reasons behind the messages – this was also evident in some of the questions the mothers posed throughout the research. A few women also referred to the importance of righteous living within the family, hinting at a belief that doing the right thing will prevent negative outcomes for them and/or their baby.

It is important not be stressed ... live righteously within your family.

One should live with good hygiene and try and do chores so that nothing bad happens to me.

Women shared a range of issues and concerns which they had during their pregnancy. The most pervasive of these were the awareness of unusual or unexpected physical symptoms, a lack of knowledge or understanding, barriers to accessing health care or scans and finally, but importantly, the impact of stress (on the health of the baby and themselves).

Physical symptoms included pain, fatigue and a general feeling being unwell (nausea and morning sickness). Not knowing the cause of discomfort or pain was a concern for some. As one woman explained:

... I feel pain in my body. I just take my tablets; Panadol. But I still feel dizzy. I came to the doctors (midwives) and they say take tablets. But I still get dizzy...

Several mothers had unanswered questions or conflicting messages about pregnancy and health. For example, what kinds of massage could be permitted during pregnancy? Another mother talked about a lack of understanding of

certain traditional practices that they were advised to adhere to.

Other practices for me within my family, are related to things that I use ... for example, things that I eat with, I shouldn't eat with a fork ... but I wonder why? As pregnancy is new to me.

Most mothers cited another trusted female as their preferred source of pregnancy advice. Some also turned to their partner or other family members to discuss their concerns or issues.

My dad, my mum, when my brother is at home, they can be stressful. There's only one person I share with and that's my sister. Only my sister.

Accessing pregnancy services

Some women experienced issues with seeing their midwives due to challenges with travel. In Savai'i for instance, mothers do not have access to radiology services and therefore are required to travel to Upolu for their periodic milestone scans. It was notable here that some women who had travelled to New Zealand or Australia for previous pregnancies were aware of the option of scanning. Others were less aware of the need for and importance of scanning. However, consistently, the issue of access for rural and Savai'i based women was discussed.

When it's time for a scan. There are no scans here. Women get transferred to Apia to do their scans. You can work out how far it is for her to travel to get a scan.

Access to antenatal care was also discussed in terms of waiting times to see a midwife. Some mothers talked about arriving early in the morning and waiting for several hours before they are seen.

The usual issue here at the clinic. Sometimes we are prevented from seeing a doctor/midwife - need more doctors/midwives so that appointments can progress faster. We shouldn't have to sit and wait for long periods. It's also difficult to travel around on buses and boats.

Sourcing information

The majority of information currently available to pregnant mothers is provided through clinics either through one-on-one engagement with their midwife/health professional, available

brochures or in one instance, group education sessions. Other mothers mentioned the importance of seeing a 'foma'i' which translates as 'doctor', which in Samoa can mean any health professional including their midwife, or 'fa'atosaga'.

Once a mother knows she is pregnant, she should first see her doctor/midwife, who provides advice on each issue related to the health and wellbeing of a pregnant mother.

Others admitted that they did not proactively seek advice from their midwives unless it was imparted:

They don't ask, we don't tell. No offence - so what's the point of sharing?

Maternal health promotion within the clinical setting is limited by the prioritisation of clinical checks such as weights, blood pressure, blood tests and scans. All mothers appreciated the clinical aspect of their visitation and if they are within healthy ranges for their checks and tests, they believed they were healthy. However the research provided qualitative information about questions and concerns among the mothers and their limited understanding of what, and in particular, why, certain behaviours were considered harmful or put them at risk. Most mothers also trusted information from their midwives/health professionals however wanted them to impart more advice about their pregnancy:

I only get info about what baby looks like when I get scans - don't know about mothers but I would like to get more information. Rather than me asking, I'd like for my midwife to tell me what stage my baby's development is. I don't ask those sorts of questions of my midwife, but I would like for them to do it as routine practice.

One clinic was more extensive in its maternal health promotion, delivering group sessions at the clinics one morning a week, and also carrying out home/village visits to pregnant mothers and their families, delivering home promotion messages outside of the clinic setting. Both these sessions were perceived as valuable from the viewpoint that many of the mothers who attend have the opportunity to ask questions and discuss any concerns they may have. A couple of mothers, who have experienced pregnancy and childbirth in New Zealand, made some comparisons with what was available to them in Samoa:

My first child was born in NZ – the service available in NZ is very different from Samoa. ...I wish there was a specialist – one-on-one doctor I can check. I would like to see a private specialist – they exist here but not enough. A book that I received in my first pregnancy in NZ would be useful here.

Exploring the potential for video and digital health promotion was overwhelmingly endorsed by pregnant mothers.

There's a great need for a screen that shows pregnancy health programmes.

In terms of online and digital support, a small minority of mothers went online to find information about pregnancy but not everyone saw social media and the internet as sources of maternal health information, even though there was a rise of technology.

I hardly use the internet. The only thing – God willing – I want to know is to look upon my baby when they are born.

Other health promotion advice is available through brief advertisements on national television stations and radio stations. The mothers did have concerns about the Zika virus as there were regular advertisements on warnings about the impact of Zika on pregnancy and the harmful effect on baby. While these channels are effective in terms of reach and raising awareness, they probably posed more questions for the mother than they did practical solutions. It is therefore essential to provide two-way channels for communicating information and enabling discussion with mothers to fully understanding the implications of the messages on them and their baby.

DISCUSSION

Pregnant mothers' current understanding of health promotion messages indicates a basic level of awareness of key pregnancy health advice. This advice was often general with mothers referring to the importance of good nutrition, keeping active and not smoking or drinking alcohol. Mothers also placed a strong emphasis on the need to remain stress-free and keeping a positive frame of mind despite any issues they encounter. This understanding was occasionally synonymous with religious and/or spiritual beliefs that prayer or offering up their issues and concerns to God was an important way of remaining healthy during pregnancy. When probed further however, some details

became hazy and there was a lack of understanding of the physiological reasons behind the messages – this was also evident in some of the questions the mothers posed throughout the research.

Furthermore, some mothers talked about the difficulty of adhering to the key messages citing examples of internal and external struggles. These findings indicate a need for health promotion that goes beyond simple imparting of key messages to an approach that provides opportunities for the mother to ask questions and have discussions about what the messages mean for them and how they can implement them in their daily lives. Identifying ways of supporting pregnancy health and wellbeing requires reaching beyond and around the mother to others who are in a position to support her in ensuring a healthy pregnancy.

In this work we identified that knowledge and understanding of maternal health information and advice had been gained predominantly through interactions with other female family members, friends or people from within their community, including midwives or maternal health specialists. Women with other children also called on their experiences from previous pregnancies. A few mothers were proactive in reading brochures or limited printed material however only three out of 32 mothers sought advice online. This reflects a greater degree of face-to-face interaction with people they trust for information and advice over official health promotion material.

The analysis of the data gathered from group interviews with pregnant women in Samoa revealed several key areas warranting further attention. Firstly, women are actively engaged in their pregnancies and look for support, whether it be via family, health professionals or via media sources. Women do experience a degree of concern and anxiety about their pregnancy, which is exacerbated by periods of or persistent stress (including marital). Ideas for improving maternal health promotion and support were less about introducing new concepts and more about building on current strengths, providing further training for allied health workforce and community champions and making outreach programmes scalable across more villages/communities.

In order to build on the inherent interest among pregnant women to maintain or become healthy during their pregnancy, information (print resources) may need to be translated into the Samoan language using non-medicalised

terminology. In addition, opportunities such as waiting times at clinics can be opportunities to engage women and their families in video-based information (or digital media) or support group session on clinic days while they wait for their appointment. Opportunities for group discussions and asking questions of a facilitator who is both an expert and someone they can trust was seen as beneficial to addressing mothers concerns and for providing practical solutions and support for general maternal health promotion advice.

This study has several limitations. It was a qualitative study which was designed to identify how women conceptualise and experience pregnancy, their knowledge and information needs. Given the interviews were conducted by midwives, known to some of the participants, there is always a risk of social desirability responses. Furthermore, participant's answers may have depended on how they felt emotionally at the time, giving positive answers when feeling happy and more negative ones when feeling sad or irritated. Although the views of partners and/or fathers would be invaluable to the overall understanding of effective pregnancy health and wellbeing approaches, the limitations of funding and time meant that they were excluded for this research. The views of partners and/or fathers and other caregivers will be considered for future research. Finally, the women's discussions were in Samoan and were later translated into English, so it is possible that some meaning was lost in translation.

A strength of the study was that it gave opportunity for the mothers to ask questions of the facilitators about their pregnancy because they became more confident as the focus group progressed. A few questions had stemmed from previously traumatic experiences for themselves or someone they knew in the community. The asking of questions by the mothers was reflective of their desire to seek answers or clarification and to discuss their concerns with a trusted expert. Also, the focus group locations were geographically spread out (extending to Savai'i) so the study is more likely to capture any regional differences in opinions that may not have been apparent if constrained just to Upolu.

A recent metareview¹¹ of 98 systematic reviews on facilitators and barriers to quality of care for maternal and newborn health reported that the facilitators were: respect, confidentiality, comfort and support during care provision, engaging users in decision making, continuity of care and effective audit and feedback mechanisms. Key barriers were: language

barriers in information and communication, power differential between users and providers, health systems not accounting for user satisfaction, variable standard of implementation of standard guidelines, shortage of resources in health facilities and lack of studies accessing the role of leadership in quality of care.

Another review¹² reported that the major barriers for maternal satisfaction included: distance and transport connectivity, clean toilets, availability of medication and equipment, waiting time before admission, preference for a female providers and respectful behaviour by doctors, nurses and support staff.

Samoan pregnant women are not unlike other women around the world and face similar barriers to accessing health care. A secure trustworthy environment could be created (antenatal classes) where women could ask about urgent questions about their pregnancy.

Anecdotal evidence suggests that the main reason the pregnant women were motivated to get a scan was to know the gender of the baby. This assertion could be confirmed in future research.

CONCLUSION

Building on current health promotion approaches and capitalising on opportunities such as clinic waiting times to share and promote relevant, supportive and practical information may help to leverage support for pregnant mothers. Recognising the importance of lived realities of the mothers and the significance of relationships and mental wellbeing are key to improving engagement with mothers and their families as well as ensuring overall health and wellbeing of pregnant women and their children.

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