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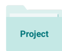
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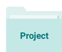
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Adolescent Unplanned Pregnancy in the Pacific

TONGA

Christine Linhart, Karen McMillan, Hilary Gorman, Catherine O'Connor, Michelle O'Connor, Avelina Rokoduru and Telusa Fotu Tu'i'onetoa

Prepared for *Pacific Women Shaping Pacific Development Support Unit*

UNSW SYDNEY

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Executive summary

This research aimed to understand the contemporary context and realities of adolescents in Tonga who face unplanned pregnancy and motherhood. Issues facing adolescent girls regarding sexual and reproductive health are implicated in social, cultural and economic development, and in human rights imperatives in the region. Young women in the Pacific navigate sexual and reproductive decision-making in increasingly complex social and cultural contexts, and these realities can only be adequately understood through investigation of the lived experiences and perspectives of the young women and girls themselves. In addition to personal narratives, other relevant contextual information includes access to sexual and reproductive health education and services; access to contraception; enablers and constraints to sexual health decision-making and action; traditional knowledge and practices of fertility control; and the role of older women in these matters. To understand the context and realities in Tonga, face-to-face interviews were conducted with 15 participants aged 16–19 who had experienced an unplanned pregnancy; 11 grandmothers or women aged over 50; and one focus group discussion with grandmothers or women aged over 50. The sample was non-random and as such it cannot claim, nor was it intended, to be representative of all unplanned adolescent pregnancies in Tonga. All potentially identifying data from interviews was deleted or altered at the time of transcription. Pseudonyms have been used in the results section to protect the participants' identities.

Their pregnancy was unexpected for all of the young participants in this study, and the first physical symptoms came as a surprise. Nearly all of the participants described being frightened and not knowing what to do when they realised that they were pregnant. Close friends, aunts, cousins and grandmothers were the first people to whom most of the participants voluntarily disclosed their pregnancy. All participants said that they were scared to tell their parents they were pregnant, and most lied when questioned by their parents about possible pregnancy. Because they were scared, most did not confirm their pregnancy or have any interaction with a health service until they were around five months pregnant, and sometimes later.

Knowledge about sexual and reproductive health and contraception was low among the young participants. Sources of reliable information were limited, with many participants stating that the only things they knew about sexual and reproductive health and contraception were what they had seen on Facebook, on YouTube and in movies. No participants reported receiving sex education from parents or senior family members, nor was there any mention of sex education or formalised discussion about sex at school – apart from abstinence until marriage. The coverage of sexual and reproductive health education through non-government organisation (NGO) programs appeared to be patchy and was compromised by participants' fears around confidentiality from the NGO staff if they self-selected to attend sexual health education sessions or tried to access contraception.

Condoms were the only contraceptive method that some of the young participants were aware of prior to their pregnancy. While some participants knew that they could access condoms from certain NGOs, issues around confidentiality were one of the biggest barriers to access. Of those who did mention the use of contraception (condoms), it was used erratically and at the sole discretion of their male partner. This highlights the importance of understanding the way that sexual relationships are defined among young people in Tonga and the power relationships within them. The findings from this study

show that increased access to condoms, without also addressing gender equality and harmful gender dynamics, may have limited benefit in reducing adolescent unplanned pregnancy in Tonga. Other methods of contraception do not preclude condom use and may give more control to adolescent girls, including long-acting reversible contraceptives. Given the older age of many of the participants' male sexual partners, more detailed investigation into the ways that young people embark on, and establish, sexual relationships may be helpful.

Decision-making about whether to 'keep' the baby or try to abort was often informed by whatever information the young participants could find on the internet – namely, Facebook, Google and YouTube. Some participants also turned to their close friends and select relatives to discuss possible abortion, but most often they were unable to obtain any useful information from those sources. Most girls had heard that there were ways to abort a pregnancy, but few were sure of exactly what to do. Some of the methods to try to abort or 'drop the baby' were very dangerous. One of the most commonly mentioned methods of abortion was medicines or pills. However, only one participant could describe in any detail what these were or where they could be accessed. The other most commonly mentioned method was drinking 'blue bleach'. Jumping from high places, carrying heavy loads, having sex while pregnant, and drinking strong tea were perceived methods of abortion mentioned by several participants. Only one of our young participants specifically mentioned 'traditional' methods of abortion.

Some of the young participants had given their baby for adoption to a family member, usually a cousin. The young participants' main motivation for giving their baby for adoption was to be able to return to school and complete their studies, but several also mentioned that it was the best way for their baby to have a better life.

Most of our young participants described that the main support they received in being a mother came from their family. Despite early anger and disappointment from family members, most of the young participants and their babies were still living with their parents or close relatives. Usually, both the young mother and the child were being financially supported by their family. Many of the young participants spoke about regret for disobeying their parents and acknowledged that they had caused a lot of disappointment by compromising their parents' schooling and career aspirations for them. A lot of our young participants described that when they gave birth and saw their baby, they had an overwhelming sense of purpose and love in their life as a mother. However, this did not change the aspirations expressed by almost all the young participants to undertake more studies and get a job.

The findings from this study indicate the need for strengthened sexual and reproductive health education for adolescents in Tonga. This could be delivered through education programs in schools, or through community-based programs such as peer-to-peer and buddy programs or strengthened early adolescent girl-focused programs. Sexual and reproductive health and contraceptive education for young girls may be more acceptable if it is delivered to both older women and girls together, and in a forum that enables the older women to take some ownership of the process. The hosting of small mother-and-daughter group meetings or workshops may improve, and begin to normalise, dialogue between mothers and their daughters on matters of sex, gender and relationships. The facilitation of such discussion may also increase the confidence of both younger and older women to raise or address these issues in other interpersonal or family situations and in wider community fora. Consideration of the use of social media platforms, such as Facebook groups, is also recommended to provide confidential and non-judgemental sexual and reproductive health education and support.

Findings from this study also indicate the need for improved provision of accessible, non-judgemental and confidential sexual and reproductive health services and commodities for adolescents; a range of contraceptives available and accessible to adolescents, including long-acting reversible contraceptives; more supportive attitudes by maternity clinic staff towards young mothers; programs to support mothers, aunts and grandmothers as sources of information and support; family and community projects to challenge harmful gender dynamics; mentoring for young mothers and support groups for young mothers and fathers; support for young mothers to complete education and gain employment; and, over the longer term, repeal of abortion laws and ratification of the Convention on the Elimination of all Forms of Discrimination against Women.

1 Aims and objectives

This report presents findings from data collected in Tonga as part of research into adolescent unplanned pregnancy in three Pacific Island States: Tonga, Vanuatu and Chuuk State. Rates of unplanned adolescent pregnancy are high in many Pacific Islands countries. Issues facing adolescent girls with regard to sexual and reproductive health are implicated in social, cultural and economic development, and in human rights imperatives in the region. Young women in the Pacific navigate sexual and reproductive decision-making in increasingly complex social and cultural contexts. Those contexts do not generally enable young women to speak openly about such matters. In acknowledgement of this situation, the *Pacific Women* Advisory Group on Research identified the need for research in order to better understand the experiences of unplanned pregnancy among young women in the Pacific. Researchers and stakeholders with an understanding of adolescent pregnancy in the Pacific gathered in Suva in July 2018 to confirm the need and discuss the brief for the research. Their insights inform the focus and methodology of this study. The research was funded by the Australian government's Gender Equality Fund through the *Pacific Women* Shaping Pacific Development (*Pacific Women*) program. A research team from the University of New South Wales was contracted to undertake the study.

Data collection at the three sites aimed to shed light on the contemporary context and realities of adolescents in Tonga, Vanuatu and Chuuk State who face unplanned pregnancy and motherhood. An account of the lived experiences and perspectives of the young women and girls themselves is necessary to gain an adequate grasp of those realities. In addition to personal, family and relationship stories, the study enquired into access to sexual and reproductive health services; enablers and constraints to decision-making and action; traditional knowledge and practices of fertility control; and the role of older women in these matters.

The research employed in-depth ethnographic interviews with girls and young women, aged 16–19 years, who have experienced unintended pregnancy and motherhood. The study also investigated traditional and contemporary knowledge around fertility limitation practices, including from the viewpoints of older women, using face-to-face interview methods and focus groups with older women. Data collection was undertaken at three sites in Tonga, at three sites in Vanuatu, and on Weno in Chuuk, including in isolated and mountainous areas.

The findings have direct programmatic implications for the development of culturally informed and age-appropriate sexual and reproductive health, social support and educational services for adolescent mothers and young girls. The need for such services is indicated by high teenage fertility rates (see Table 1, p. 7). The findings also offer insights into the significance of wider health and social policy and programming for this group and contribute to a regional evidence base. Through its methodology, the study centralises the experiences of, and gives voice to, the young women themselves, the wellbeing of whom has human rights and gender equity implications in the Pacific.

The objectives of the research were:

- to understand the issues associated with unplanned adolescent pregnancy from the point of view of young women in Tonga, Vanuatu and Chuuk State
- to understand the social and structural factors impacting young women who experience adolescent pregnancy and motherhood in Tonga, Vanuatu and Chuuk State
- to better understand the use of traditional and other practices of fertility limitation, especially abortion, in Tonga, Vanuatu and Chuuk State, and the impact on the experience of adolescent pregnancy and motherhood
- to give voice to adolescent girls in the Pacific.

2 Literature review

2.1 Adolescent unplanned pregnancy

Adolescents bear a disproportionate burden of poor sexual and reproductive health outcomes in lower- and middle-income countries (Patton et al., 2016). The 2030 Agenda for Sustainable Development includes 17 Sustainable Development Goals. Goal 3 on health and wellbeing aims to 'ensure healthy lives and promote wellbeing for all at all ages'. The target indicator for goal 3.7 on sexual reproductive health is a reduction of adolescent birth rates. In the Pacific, the Moana Declaration of 2013, as endorsed by Pacific parliamentarians, focuses on sexual and reproductive health and acknowledges the need to prevent unplanned pregnancies and prioritise sexual and reproductive health services for adolescents (UNFPA, 2013b).

The adolescent fertility rate among women aged 15–19 years is far lower in developed Pacific rim countries such as Australia, with an estimated 10 births per 1,000 women aged 15–19 years in 2017 (ABS, 2018), and New Zealand, with an estimated 15 births per 1,000 women aged 15–19 years in 2017 (Statistics New Zealand, 2019), compared to the data provided in Table 1. As indicated in Table 1, Vanuatu has the third-highest adolescent fertility rate in the region. Notably, the Federated States of Micronesia (FSM) has the second-highest maternal mortality rate after Papua New Guinea.

Adolescent pregnancy and motherhood can have long-term negative impacts on the health and social and economic wellbeing of mother and child (Patton et al., 2016; Sawyer et al., 2012; UNFPA, 2013b; UNFPA, 2013c). Adolescence is a time of critical development, as physiology, cognition, psychology and social functioning develop rapidly. Unmet need for contraception, lack of information and lack of bodily autonomy can lead to unplanned adolescent pregnancy (UNFPA, 2013a).

Young women tend to bear the burden of adolescent pregnancy and motherhood, which can have a long-term negative impact on their health and social and economic wellbeing (Patton et al., 2016; Sawyer et al., 2012; UNFPA, 2013a). Depression, unsafe abortion, and pregnancy and labour complications are serious health risks due to adolescent pregnancy (UNFPA, 2013a), which is associated with increased risk of low birth weight, pre-term births and stillbirths (UNFPA, 2013b).

The impact of adolescent pregnancy extends beyond that on the individual mother (Sawyer et al., 2012). In low- and middle-income countries, 'health inequities related to social and cultural norms, gender power imbalance, education and socio-economic deprivation affect young and unmarried women in particular' (Bell et al., 2018, p. 5). Any stigma and marginalisation associated with teen motherhood will exacerbate those impacts. Teenage pregnancy often leads girls and young women to drop out of school. It limits income-earning potential for the mothers and can also limit their opportunities and choices (UNFPA, 2013a; Viner et al., 2012). In the Pacific, adolescent fertility and related outcomes have wider implications for development, as well as gender equity and human rights imperatives (Kennedy et al., 2013b; UNFPA, 2013a).

Adolescents are a neglected group in health and social programming (Bearinger, Sieving, Ferguson, & Sharma, 2007), and knowledge on how best to promote adolescent sexual and reproductive health is patchy (Bell et al., 2018; O'Connor, 2018). Much of the critical literature on teenage pregnancy derives from a Western context and focuses on clinical services to reduce adolescent fertility. However, it has been argued that the health and wellbeing of adolescent mothers in the Pacific would be better served by attention to cultural and social features of the society than by a focus on contraceptive technologies (McPherson, 2016).

Table 1: Reproductive health indicators for Pacific Island countries[1]

	Adolescent fertility rate (births per 1,000 women 15–19 years)	Total fertility rate (births per 1,000 women 15–49 years)	Unmet family planning rate (percentage of women 15–49 years)	Contraceptive prevalence rate (percentage of women 15–49 years)	Maternal mortality ratio (per 100,000 women 15–44 years)
Cooks	67.7 (2009–13)*	2.7 (2009–13)*	–	48 (2001–05)*	0 (2008–12)*
FSM	44 (2010)*	3.5 (2010)*	44 (2002)*	40 (2009)*	140.6 (2016)[2]
Fiji[3]	23.1 (2015–17)	2.9 (2015–17)	20 (2000)*	38.4 (2013)*	14 (2015–17)
Kiribati	49 (2010)*	3.9 (2010)*	28 (2009)*	22.3 (2009)*	90 (2015)[4]
RMI	85 (2011)*	3.4 (2011)*	2.4 (2009)*	16 (2010)*	105 (2007–11)*
Nauru	94.3 (2011–13)*	3.9 (2011–13)*	23.5 (2007)*	25.1 (2007)*	0 (2011–13)*
Niue[5]	19.9 (2007–11)*	2.7 (1987–2016)	–	22.6 (2001)*	0 (1996–2016)
Palau	27 (2015)*	2.2 (2015)*	–	22.3 (2010)*	0 (2010)*
PNG[6]	68 (2016–18)	4.2 (2016–18)	25.9 (2016–18)	36.7 (2016–18)	215 (2015)[7]
Samoa[8]	56 (2010–14)	5.1 (2010–14)	34.8 (2010–14)	15.3 (2010–14)	51 (2015)[9]
Solomon Islands	77 (2015)*	4.4 (2015)*	34.7 (2015)*	29.3 (2015)*	114 (2015)[10]
Tokelau	29.8 (2006–11)*	2.1 (2015)*	–	–	–
Tonga	31.9 (2016)*	4.1 (2009–12)*	25.2 (2012)*	28.4 (2012)*	124 (2015)[11]
Tuvalu	28 (2012)*	3 (2012–16)*	24.2 (2007)*	31 (2007)	0 (2010)*
Vanuatu	81 (2013)*	4.2 (2013)*	24.2 (2013)*	47 (2013)*	78 (2015)[12]

1 Up-to-date data is not available for all countries. Statistics marked with an * have been sourced from SPC, *National Minimum Development Indicators*. Retrieved from http://www.spc.int/nmdi/maternal_health. Other sources are footnoted.

2 Source: Government of Federated States of Micronesia (FSM). (2017). *Title V 2018 MCH Block Grant Application and 2016 Annual Report. Palikir, Pohnpei: Department of Health and Social Affairs, FSM National Government*. Retrieved from https://mchb.tvisdata.hrsa.gov/uploadedfiles/StateSubmittedFiles/2018/FM/FM_TitleV_PrintVersion.pdf.

3 Unless marked with an *, the source of the Fiji statistics is Fiji Bureau of Statistics (FBoS), Registrar General's Office (Ministry of Justice, CRO) & Ministry of Health & Medical Services (MoHMS). (2019). *Republic of Fiji Vital Statistics Report 2012–2017*. Retrieved from https://www.statsfiji.gov.fj/index.php/statistics/social-statistics/vital-statistics-report.

4 Retrieved from https://pacificdata.org/dashboard/sdg-3-good-health-and-well-being.

5 Unless marked with an *, the source of the Niue statistics is Statistics and Immigration Office Ministry of Finance and Planning Government of Niue. (2018). *Niue Vital Statistics Report 2012–2016*. Retrieved from http://beta.sdd.spc.int/media/212.

6 Unless otherwise indicated, the source for the Papua New Guinea statistics is National Statistical Office (NSO) [Papua New Guinea] and ICF. (2019). *Papua New Guinea Demographic and Health Survey 2016–18: Key Indicators Report*. Port Moresby, PNG, and Rockville, Maryland, USA: NSO and ICF.

7 Retrieved from https://pacificdata.org/dashboard/sdg-3-good-health-and-well-being.

8 Unless marked with an *, the source of the Samoa statistics is Samoa Bureau of Statistics & Ministry of Health. (2015). *Samoa Demographic and Health Survey 2014*. Retrieved from https://www.sbs.gov.ws/digi/Samoa%20DHS%202014.pdf.

9 Retrieved from https://pacificdata.org/dashboard/sdg-3-good-health-and-well-being.

10 Retrieved from https://pacificdata.org/dashboard/sdg-3-good-health-and-well-being.

11 Retrieved from https://pacificdata.org/dashboard/sdg-3-good-health-and-well-being.

12 Retrieved from https://pacificdata.org/dashboard/sdg-3-good-health-and-well-being.

2.2 Adolescent sexual and reproductive health in the Pacific

There is some data on various aspects of sexual and reproductive health in some Pacific Island countries, but the amount that focuses on young people is limited. Within the literature on sexual and reproductive health and adolescent pregnancy, cultural taboos surrounding sexuality and the shame associated with the discussion of sex is a common theme. These taboos discourage communication about sex in families, schools and churches. Consequently, adolescents tend to have limited knowledge about sex and sexuality and limited access to sexual and reproductive health services (Jenkins & Buchanan-Aruwafu, 2006; O'Connor, 2018). The impact of such taboos is also highly gendered.

In the Solomon Islands, taboos about the discussion of sex are strong and act as a barrier to discussing sex in certain contexts. These taboos also serve as a barrier in the provision of sexual and reproductive health services (Buchanan-Aruwafu, Maebiru, & Aruwafu, 2003; Raman, Nicholls, Pitakaka, Gapirongo, & Hou, 2015). Buchanan-Aruwafu, Maebiru and Aruwafu (2003) highlighted how discussion of sexuality is regulated through gendered social norms, with shame and gossip playing a key role. Yet, young Solomon Islanders in Auki have developed indirect ways of speaking about sex and sexuality by using slang and metaphors. Similarly, in Papua New Guinea, the shame surrounding pregnancy outside of marriage, and gossip that focuses on the young mothers rather than the fathers, directs the blame for unplanned pregnancy on young women (Kelly et al., 2010).

Research on unmet need for contraception and knowledge and attitudes towards contraception and sexual education has been conducted in Fiji; however, few of these studies focus on adolescents (see Lincoln, Mohammadnezhad, & Rokoduru, 2017; Naidu, Heller, Koroi, Deakin, & Gayaneshwar, 2017; Naz, 2014; Varani-Norton, 2014). One study that focused on the outcomes of adolescent pregnancy in Suva, Fiji, found that teenage pregnancy, as in other countries, tends to be high risk and that health interventions should be tailored for young women to reduce adverse health outcomes, including perinatal death (Mahe, Khan, Mohammadnezhad, Salusalu, & Rokoduru, 2018).

Recent Fijian data highlighted the role of emotions in adolescent sexual and reproductive decision-making, calling for greater attention to the subjective views and understandings of adolescents themselves and to the socio-cultural and structural environments that shape them (O'Connor, Rawstorne, Devi, Iniakwala, & Razee, 2018). It was found that adolescents place emphasis on confidence, resilience and access to services, yet adolescent iTaukei women's priorities diverged from this norm in that their priorities focused on preventing shame and preserving their sexual reputation (O'Connor, 2018). At the same time, adolescent women desired agency and freedom in relation to sexual and reproductive wellbeing (O'Connor et al., 2018).

Because they do not require a doctor's prescription, condoms are often the easiest contraceptive for young people to first access. In writing about factors related to condom use among young people in Tonga and Vanuatu, McMillan and Worth (2011) pointed to a mismatch between condom knowledge and condom use practice and in doing so stressed the role that wider socio-cultural factors – rather than simply knowledge – have on condom use. They noted the way in which the importance of shame regulated behaviour and limited not only access to condoms but also their use: condom use was associated with casual sex and promiscuity and most young Tongan women interviewed expressed resistance to condom use in order to uphold a respectable feminine identity (McMillan & Worth, 2011).

Research among adolescents in Vanuatu also suggests that socio-cultural norms and taboos are the most significant barrier to youth accessing sexual and reproductive health services (Family Planning New Zealand, 2019; Kennedy et al., 2014). Information for adolescents has tended to focus on sexually transmissible infections (STI) and HIV, while young people have indicated a preference for more information about pregnancy, condom use, puberty, sexuality and relationships (Kennedy et al., 2014). Similarly, research among young Cook Islanders found that they had little knowledge of pregnancy and prevention of STI and that they want knowledge and communication skills, particularly about contraception and teenage pregnancy, to enhance their understanding and decision-making related to sexuality (Futter-Puati, 2017). The findings have been utilised to develop a needs-led Cook Islands sexuality and relationships education resource (see Futter-Puati, 2017).

A study focused on experiences of teenage pregnancy in the Cook Islands found that participants reacted to learning they were pregnant with denial and fear. Abortion emerged as a key theme, with all participants having considered abortion but none able to obtain one (White, Mann, & Larkan, 2017). This study found that the cultural importance of motherhood meant that these young women also had positive feelings about motherhood (White, Mann, & Larkan, 2018). In the Pacific, children are valued for their contribution to the family as a source of labour and social support. The family structure includes children who have been informally adopted and accepted as part of the family, often but not always adopted from the extended family (Farran & Corrin, 2019). Farran and Corrin (2019) noted that high rates of teenage pregnancy mean that there are also high rates of informal interfamily adoption, but incomplete data makes it difficult to assess the scale of adoption of babies of teenage mothers.

Knowledge about the social and structural elements that frame adolescent decision-making around sex and reproduction in other Pacific Island societies is currently limited. Most data on adolescent pregnancy in the Pacific is quantitative, providing little purchase on factors impacting high rates, or experiences and range of consequences, of adolescent pregnancy.[1] Furthermore, while traditional healers are an acknowledged part of the informal health system in the Pacific (Kennedy et al., 2013a), there is no data on traditional methods of fertility limitation, nor on the role of traditional knowledge in fertility decisions (Kennedy et al., 2013a; Kennedy et al., 2014).

2.3 Abortion in the Pacific

Globally, it is estimated that, among 15–19-year-old women, 3.2 million unsafe abortions take place in developing countries each year (Shah & Ahman, 2012). The stigma surrounding abortion, laws that make abortion illegal, a lack of youth-friendly services, and the constrained agency of young women act as barriers to adolescent women and girls accessing safe abortion services (IPPF, 2014).

Little is known about women's experiences of fertility limitation in the Pacific. Jolly (2002) noted that some women in the Pacific still use indigenous methods of herbal medicines, massage and other means, as well as biomedical preparations, to induce abortion and that little research has been done on abortion practices in the contemporary Pacific. Research on abortion in the Pacific context is needed to better understand practices and links to maternal mortality (FPI & SPC, 2009). As noted by Chetty and Faleatua (2015), access to information about sexual and reproductive health, as well as contraceptive

1 Bell et al. (2018) describe plans to undertake qualitative research focused on the social context and the lived experiences of pregnancy for young women and young men to inform the development of youth-specific health promotion responses to pregnancy in Papua New Guinea.

commodities, is difficult and access to safe abortion is simply not an option for adolescents in the Pacific. The International Planned Parenthood Federation has put forth a set of promising practices to strengthen abortion service provision to young women that includes integration with other youth programs; increasing staff commitment; focusing on confidentiality and autonomy; utilising a harm reduction model; understanding consent laws; peer promotion; applying a buddy system; advocacy by example; and social media and mobile outreach (IPPF, 2014).

There is limited documentation of unplanned pregnancy and abortion in Papua New Guinea (see Sanga, Costa, & Mola, 2010; Vallely et al., 2014). With an estimated 733 maternal deaths per 100,000 live births, Papua New Guinea has an extremely high rate of maternal mortality (NSO-PNG, 2009). A study that examined 21 maternal deaths at Goroka General Hospital between 2005 and 2008 found that 10 deaths (48%) were due to sepsis after birth or following induced abortion. Of the three deaths of women under the age of 19 years, all were due to complications from unsafe induced abortions (Sanga et al., 2010). The study documented the case of a 17-year-old girl who was single, sexually active and facing an unplanned pregnancy. She had never sought contraception, as she thought that it was only available to married women. The girl obtained herbs traditionally used to induce abortion because she felt that her relatives would not accept her pregnancy and because she wanted to continue her education. She died of sepsis three weeks after she attempted to induce an abortion (Sanga et al., 2010). Similarly, another study in Papua New Guinea found that women who induced abortion were significantly more likely to be younger, single and studying, with a pregnancy that was unplanned and unwanted, compared to women who had a spontaneous abortion (Vallely et al., 2014). The study reported women inducing abortion by misoprostol (50%), physical means (22%), traditional herbs (11%), cultural beliefs/sorcery (7%) and other means (9%) (Vallely et al., 2014).

A 2015 study conducted by the Vanuatu Family Health Association focused on induced abortion in Vanuatu, examining attitudes and practices of communities and key informants (health providers, herbalists, chiefs and legal representatives). The study respondents cited consumption of lemon fruit, *kastom* medicine, vigorous exercise, inserting objects into the uterus and taking contraceptive pills as being methods to induce abortion (Tao, Ssenabulya, & Van Dora, 2015). Respondents from urban areas suggested that the reasons why a woman might have an abortion included fear of parents or others finding out (14%); insufficient resources (10%); continuing career/school (7%); incest (5%); rape (4%); too many children (2%); and other reasons (7%) (Tao, Ssenabulya, & Van Dora, 2015). A study on recent family planning in rural Vanuatu found that when abortion arose during discussions on unplanned pregnancy, the dominant perception was that it was morally wrong. In-depth interviews were conducted with 12 women, with one woman noting that she had terminated her own pregnancy and another describing her unsuccessful attempt to access an abortion (Family Planning New Zealand, 2019). While discussing the scenario of unintended pregnancy among Fijian youth, some participants said they would keep the pregnancy a secret and they would consider seeking an abortion, despite accessibility to safe abortion being limited (O'Connor, 2018).

Context-specific strategies are necessary to create an enabling environment for adolescent sexual and reproductive health and the wellbeing of adolescent mothers in the Pacific (Kennedy et al., 2013a). These strategies must be informed by the lived experiences of young women. Yet research on the topic seldom includes the voices of adolescent mothers themselves (Barcelos & Gubrium, 2014; Mann, Cardona, & Gómez, 2015).

3 Methodology

3.1 Research design

This research addresses methodological and empirical gaps in knowledge about unplanned adolescent pregnancy in Tonga, Vanuatu and Chuuk State. The findings are intended to inform the development of targeted health and social policy and programming; raise the profile of young women's voices; and, consequently, help further human rights and gender equity in the Pacific.

The study was designed to produce ethnographic data on issues associated with adolescent unplanned pregnancy and motherhood in Tonga, Vanuatu and Chuuk State. Ethnographic methods produce detailed or 'thick' (Geertz, 1973) description and prioritise the subjective realities of the research participants (Glaser & Strauss, 1967), characteristics that are important when we seek a nuanced understanding of factors affecting decision-making and underpinning behaviours, and the meanings of actions and events in the lives of participants. Ethnographic methods are increasingly used in development research (see van Donge, 2006) and in public health and service user research (Stahler & Cohen, 2000; Ratner, 1993).

Qualitative in-depth face-to-face interviews were conducted with young women (16–19 years old) who had experienced unintended pregnancy in Tonga, Vanuatu and Chuuk State. The collection of personal story data enabled the mapping of issues related to adolescent unplanned pregnancy and motherhood, as they have played out in the lives of 63 young Pacific women. In acknowledgement of the ongoing cultural importance and use of traditional medicines in many Pacific countries, the study includes enquiries into traditional as well as contemporary means of fertility control and the role and viewpoints of older women in those three countries. Focus group discussions are highly effective means of revealing accepted group norms. Because of this, focus group discussions collect a different type of information than can be garnered from private interviews, and the opinions and views expressed in these discussions may even be at odds with the personal beliefs and experiences of the individuals who are part of that group.

3.2 Ethical approvals

Prior to the commencement of fieldwork, applications were submitted and approvals were obtained from the UNSW Human Subjects Ethics Committee, UNSW Australia, the FSM Department of Health and Social Affairs Institutional Review Board, the Tongan Government and the Ethics Committee of the Ministry of Public Health Vanuatu.

3.3 Data collection and analysis

The study aimed to produce nuanced accounts of a range of factors impacting on the experiences of unplanned adolescent pregnancy and motherhood, and to explore the key thematic areas. Data was collected through 20–25 face-to-face interviews in each country with participants 16–19 years old who had had an unintended pregnancy. Participants were recruited through convenience and snowball sampling. Interviews followed the General Interview Guide method and were conversational in style. Interviewers first asked the young participants to tell their own story. Further open-ended questions enquired into how the participant managed unintended pregnancy and motherhood; the consequences of the pregnancy; access to information on fertility control; access to and use of both traditional and contemporary knowledge around fertility control; and enablers and barriers to decision-making and action.

Interviews were voluntary and all participants were provided with verbal and written information about the study and gave verbal and written consent to be interviewed. Interviews generally took approximately 30 minutes and most interviews were recorded. The majority of interviews were conducted in the participants' first language by local research assistants who had been trained for this project. A smaller number were conducted in English by a chief investigator. The training of research assistants focused on the aims of the data collection; principles and practice of qualitative data collection; ethical considerations when collecting data on sensitive subjects; and child protection during research. All research assistants, interviewers and translators engaged on this study signed a strict confidentiality agreement prior to beginning any work on the project.

A total of 94 face-to-face interviews and five focus group discussions were conducted in Tonga, Vanuatu and Chuuk State during June and July 2019. These included:

- 63 face-to-face interviews with 16–19-year-old young women who had experienced unplanned pregnancy
- 31 interviews with women who were over 50 years of age or grandmothers
- five focus group discussions with women who were over 50 years of age or grandmothers.

Interviewers debriefed with a chief investigator following each interview.

In each country, local Pacific women interviewers were trained and employed. The data collection documents and instruments, as well as the interview contents, were discussed constantly with those interviewers. Pacific early career (academic) researchers were involved in the analysis of data.

3.4 The study in Tonga

Tonga has a population of 100,651 spread across four main island groups, with the majority (74%) residing on Tongatapu (Tonga Statistics Department, 2017). The four main island groups are Tongatapu, Vava'u, Hapa'ai and the Niuas. Tonga has a young population, with 56 per cent under the age of 24 (UNFPA, 2015). The adolescent fertility rate was estimated to be 32 per 1,000 women age 15–19 years in 2016. Tonga is the only Pacific Island country that has not ratified the Convention on the Elimination of all Forms of Discrimination against Women.[2] Abortion is illegal in Tonga, but there is a limited number of cases reported of women presenting to health centres for post-abortion care (UNFPA, 2015). A National Study on Domestic Violence against Women in Tonga conducted in 2009 found that 33 per cent of ever-partnered women reported experiencing violence in their lifetime and 13 per cent had experienced it during the last 12 months (Ma'a Fafine mo e Famili, 2012).

Data collection for the Tonga study took place during July 2019. Four local research assistants received intensive training and were engaged to work on the data collection. Integral logistical support for recruitment and data collection was provided by the Talitha Project and the Tonga Family Health Association. Both organisations facilitated contact with young women aged 16–19 years who had experienced an unplanned pregnancy and with older women who were grandmothers or aged 50 years and above. Participants were known to these organisations because they were planning to access, or had accessed, the services they offer. The Talitha Project is an NGO committed to empowering young women aged 10–24 years to make informed decisions through informal education, life skills and development programs. The Tonga Family Health Association supplies family planning, maternal and child health support, and fertility and counselling assistance.

2 Palau has signed but not ratified the Convention.

Participant recruitment for the study in Tonga was approximately 30 per cent through the Talitha Project, 30 per cent through the Tonga Family Health Association, and 40 per cent through participants' 'friends of friends' who had not had any contact with either of those organisations.

Data was collected from three sites in Tonga: Tongatapu, Vava'u and Ha'apai. In total, 26 face-to-face interviews and one focus group discussion were conducted in Tonga. All data collection documents, including the Participant Information Sheets and Consent Forms, were translated from English to Tongan. There were six interviews conducted in English and 18 in Tongan. In two interviews, the participant requested to undertake the interview in English but changed to Tongan during the interview. Signed consent was gained for all interviews; oral consent was also recorded. All of the participants agreed to have their interview recorded. In Tongatapu, six face-to-face interviews were conducted with 16–19-year-olds and two face-to-face interviews were conducted with grandmothers or women over 50. In Vava'u, six face-to-face interviews were conducted with 16–19-year-olds and seven face-to-face interviews were conducted with grandmothers or women over 50. In Ha'apai, three face-to-face interviews were conducted with 16–19-year-olds, two face-to-face interviews were conducted with grandmothers or women over 50, and one focus group was held with four older women. Only one focus group was conducted in Tonga, as the older women recruited to the study overwhelmingly expressed a preference to conduct their interviews privately with the interviewer.

All interviews conducted in Tongan were translated into English by a native Tongan speaker fluent in English. Those translations were then checked against the original audio files and verified by a second translator. All potentially identifying data was deleted or altered at the time of transcription. In the results section, pseudonyms have been used to protect the participants' identities. Translated and transcribed files were coded by at least two different researchers and code categories were generated independently. Code identification was attentive to the dominant themes that emerged from the interviews, as well as topics laid out in the Terms of Reference for the project. Initial data sets were compared for each category, final codes were confirmed, and coding trees were created. As the interview numbers were relatively small, all coding was done manually. This manual method has the advantage of facilitating a high level of familiarity with the transcripts and allowing the consideration of the interviews as individual cases as well as in data fragments. The topic headings that appear in the report reflect the data-derived codes for the study in Tonga.

4 Results and discussion

4.1 Experiences of unintended pregnancy and motherhood

This study is grounded in young women's experiences of pregnancy and motherhood. While the results presented here highlight experiences that were common among the participants in our study sample, we also present and discuss divergent experiences.

In the following section, data on key topic areas is described and summarised. Particular attention is paid to the range of experiences and views expressed, as well as to commonalities. There is a heavy focus on the use of direct quotations in order to give strong voice to the participants. All names have been changed and the names assigned to the quotations are *not* the participants' real names.

This study sample is non-random and as such it cannot claim, nor was it intended, to be representative of all unplanned adolescent pregnancies in Tonga. Throughout the reporting of results, words such as 'a few,' 'some' and 'many' are used instead of exact numbers. The resultant imprecision is deliberate and intended to prevent misinterpretation or misrepresentation of the data. Documentation of exact numbers or percentages of participants who reported the same experience, circumstance, practice or belief could otherwise be taken to suggest, erroneously, that such percentages are generalisable to the wider population.

4.1.1 Reactions to unintended pregnancy

Their pregnancy was unexpected for all the young participants in this study, and the first physical symptoms came as a surprise. Nearly all our participants described being frightened and not knowing what to do when they realised that they were pregnant. Close friends, aunts, cousins and grandmothers were the first people to whom most of the study participants voluntarily disclosed their pregnancy. All of our young participants said that they were scared to tell their parents they were pregnant, and most lied when questioned by their parents about possible pregnancy. Because the girls were scared, most did not confirm their pregnancy or have any interaction with a health service until they were four or five months pregnant, sometimes even later. Reactions to unintended pregnancy are described in the accounts of these young women.

Early in Angela's pregnancy, her closest friend noticed her vomiting at school. They both assumed that Angela must be pregnant but did not tell anyone else. Later in the pregnancy, Angela's mother noticed that something was different. She was the person who arranged for Angela to see a health service:

> *My mother noticed there was something different [faikehe] and asked if anything had happened. But I lied to her and said no. My mum didn't believe me because she saw I was different, so she spoke to her cousin at the hospital and arranged for me to be seen, and we found I was five months pregnant.*
>
> (Angela, pregnant at 16, Tongatapu)[3]

3 Pseudonyms have been used to protect the participants' identities.

Brooke suspected that she was pregnant when she started to experience symptoms, but she did not tell anyone. When questioned by her mother, she lied:

> *… I didn't know that I was pregnant. I kind of have a feeling that I was because the food and my lunch, I used to eat them and it's not like before. I see there's changes and difference. When I have my lunch with my friends they would eat, and I don't like that food anymore. I kept touching my stomach and I wonder if I'm pregnant when I have this feeling like morning sickness and those things … my mum told me, 'You never told me you needed some pads. You haven't got your period or anything?' Then I said umm no, no. It's just something. I'm not pregnant.*
>
> (Brooke, pregnant at 18, Tongatapu)

Heather mistook her pregnancy symptoms for an illness that she had previously experienced and did not use a pregnancy test until she was six months pregnant:

> *While I was working, I started to feel weird craving and stuff. But I actually had a sickness like that before, but that time I haven't had sex yet, so I thought it was the same sickness that I had. When I was six months, I got the pregnancy test. That was the time I found out I was pregnant. And my belly was not growing and stuff, so I didn't really know I was pregnant until I had my pregnancy test at six months.*
>
> (Heather, pregnant at 18, Vava'u)

Cara suspected that she was pregnant when she started to have symptoms, but told only her cousin. She hid the pregnancy from her grandparents and older sister, with whom she was living, until she was seven months pregnant. At that time, she had her first interaction with a health service:

> *I knew it myself, when I missed my period, sleeping a lot, vomiting, not feeling well and losing appetite. That's how I knew I was pregnant … I didn't go to the hospital because I was scared my grandparents and big sister would know. And I didn't tell them that something had happened to me … I just told them when I'm almost due because I hid it … Wearing loose clothes. Plus, my stomach was not really big.*
>
> (Cara, pregnant at 17, Tongatapu)

Debra's parents noticed that something was different. But, even after being told by doctors at the hospital that she was pregnant, Debra lied to her parents and said that she wasn't:

> *… it gets to a time my skirt didn't fit anymore over my belly and my mother asked if something is wrong and I told her no … my mother asked me if I already have my period and I said no because she is the one who does the washing. Then she told me we should go with my father to the hospital and have a check-up, and the doctor told me to come in alone for my examination, so my father waited outside. I found out I'm pregnant and came to my father and told him something else. I lied to him because I was scared.*
>
> (Debra, pregnant at 17, Tongatapu)

Fran's aunty helped her get a pregnancy test and confirm her pregnancy after Fran noticed her tummy growing. Fran did not want to tell her parents:

> *Probably around October I started not having my period, but I didn't even think I was pregnant. I thought it was just nothing. I started vomiting. I started having those pregnant symptoms and then maybe around January my tummy started to grow and then I went to get a pregnancy test and, yes, it was positive. That's the time I knew I was pregnant.*
>
> (Fran, pregnant at 17, Tongatapu)

Georgia's grandmother took her to the hospital for a pregnancy test. Georgia recounts her feeling when the doctor confirmed that she was pregnant and asked to speak with her parents:

> *I was crying that day. 'Cause it's all my fault, I didn't tell it to my parents. And the first moment that the doctor told me that he wants to talk with my parents. That's the first time I can't hold my tears, when I heard that the doctor is going to be telling my parents that I'm pregnant.*
>
> (Georgia, pregnant at 18, Vava'u)

Heather's best friends and cousins knew about her pregnancy and encouraged her to tell her parents:

> *My best friends and my cousins. They knew about it, like how I felt. I had a cousin who's a single mum, so I asked her for help. All she told me is to tell my parents. They're the only ones that could help me. It was really hard.*
>
> (Heather, pregnant at 18, Vava'u)

Ingrid described her feelings about finding out that she was pregnant:

> *… when I started sleeping with him. When I did this, I started having regrets, I felt like I lost something, and I would sit and think if only I'd listened to my parents none of this would have happened. When I got pregnant, I didn't blame my mother, I blamed myself, it's my fault.*
>
> (Ingrid, pregnant at 18, Vava'u)

Mary's biggest concern when she found out that she was pregnant was how she would support herself and her baby:

> *I just felt scared … I was scared of what I would do with the baby because I'm still young, I don't have a job, what will I look after the baby with and what my parents would think, like if they would chase me from home.*
>
> (Mary, pregnant at 18, Ha'apai)

4.1.2 Knowledge underpinning decision-making

Knowledge about contraception and sexual and reproductive health was low among this group of young women. The majority of interviewees stated that they knew they could become pregnant from having unprotected sex, but for some reason did not think they would become pregnant when they were having unprotected sex with the father of their baby. Sources of reliable information about sexual and reproductive health and contraception were limited, with many participants stating that the only things they knew about these topics were what they had seen on Facebook, on YouTube and in movies.

Some of the young participants were aware of contraception and where they may be able to access it, but said that issues around confidentiality were the biggest barriers. Cara stated that she did not access contraception because she was scared of the nurses:

> *I didn't think of using that [condoms] because I was scared in case I might go to the hospital and ask for it and the nurses will ask me why I'm asking for it.*
>
> (Cara, pregnant at 17, Tongatapu)

Heather did not want to access condoms from Tonga Family Health, as her cousin worked there:

> *It's hard, because I know this is the only place where we could get them for free. But since she is my cousin, I couldn't … She might tell my mum.*
>
> (Heather, pregnant at 18, Vava'u)

Of the young participants who did mention the use of contraception (almost exclusively condoms), it was used erratically at the sole discretion of their male partner. The young participants did not mention having any role in negotiating the use of contraception:

> *I never knew anything. It was him who usually got those condoms and I don't know where he bought it from or anything. He bought it but he never wanted to use it … when he's mad he's going to do it, like he's not going to use a condom.*
>
> (Fran, pregnant at 17, Tongatapu)

> *When we did it, he told me that he didn't feel comfortable when he used it [a condom], and we didn't use it anymore.*
>
> (Josie, pregnant at 16, Vava'u)

> *When we were dating, he used to come with things like that [condoms] … He told me it's for protection but after a time we didn't use the condom anymore, maybe that is why I developed this problem [palopalema]. When I got pregnant and I told him, he told me he got me pregnant on purpose in case I have another man.*
>
> (Debra, pregnant at 17, Tongatapu)

None of the young participants in this study had discussed sex or contraception with their parents or older family members. School sex education was not mentioned by any of the participants. Decision-making about whether to 'keep' the baby or try to abort was often informed by whatever information the young participants could find on the internet. One participant explained that she had seen her friends on Facebook sharing videos about how to have an abortion, and also videos from the church about why abortions were a sin. One participant described being upset after watching the church anti-abortion video.[4] She said:

> *… I used to see those videos in Facebook and YouTube about aborting the baby. I usually have those emotions and I cried. I don't know. It was just sad … I think I remember one that they used those forceps I guess to pull out the baby from the … Sometimes I think it's the doctor or something. I don't know. Yeah. They pull it out.*
>
> (Fran, pregnant at 17, Tongatapu)

Participants also turned to their close friends and family members to discuss possible abortion. Often, they were unable to obtain any information:

> *There was a girl, my cousin, who I asked. And she said she hadn't heard of any method.*
>
> (Georgia, pregnant at 18, Vava'u)

Kelly explained that her decision to keep the baby was based on the following thoughts:

> *The only thing that comes to my mind is that it's not the baby's fault, it was my fault and the baby's father's, so they should put the blame on me or him, not the baby, that's why I wanted to keep it.*
>
> (Kelly, pregnant at 18, Vava'u)

Tina's decision to keep the baby was similar:

> *It's not good, the baby had no part in this, it is yourself who was foolish, but the baby carries the burden even though they had no part in it.*
>
> (Tina, pregnant at 18, Ha'apai)

Some of the participants highlighted that their decision-making process involved consideration of their religious views and beliefs:

> *I was thinking it's better to keep it 'cause it's a blessing, like how our religion, our Mormon church see it … It's not only a blessing but to abort a baby it's a big sin … so that's what we really believe …*
>
> (Tammy, pregnant at 15, Vava'u)

4 This video was considered anti-abortion as the participant explained that it was a caricature depiction of a fully grown baby being pulled out of its mother's belly by a doctor with over-sized forceps and then being thrown into a rubbish bin. The participant said that the video had the church's name at the end.

4.1.3 Abortion attempts

Termination of the pregnancy was one of the first thoughts for many of the participants. Most girls had heard that there were ways to abort a pregnancy, but few were sure of exactly what to do. As Cara explained, one of the reasons she did not tell her family she was pregnant was because she had hoped to work out a way to abort the baby before she needed to tell them:

> *When I got pregnant, I knew my parents would be very angry and I would get a big beating [tā lahi]. The only thing that came to me was to [participant crying] … I felt and thought to myself that I wanted to abort [fakatōki] the baby but I didn't know how to, that's why I didn't tell my family sooner. And it gets to the time that I felt like I'm going to give birth soon then I told them that I'm pregnant.*
>
> (Cara, pregnant at 17, Tongatapu)

Some of the participants said that they had heard there were medicines they could take to abort a baby, but no one was sure what the medicines were or where they could access them. A 'blue bleach' was mentioned by many of our younger and older participants when outlining the ways they had heard of having an abortion. None of the young participants said that they had used the blue bleach, but mentioned other girls they knew who had:

> *She said she went and drank the bleach … she told me it worked.*
>
> (Josie, pregnant at 16, Vava'u)

Kelly mentioned that drinking the blue bleach was a method that she had heard a lot of girls had used. When asked if it had worked for these girls, she said she did not know:

> *Sometimes if the young mums are not in a good mood, they going to drink all of the bleach. They don't know how much they want to drink, sometimes they just drink the whole of the liquid.*
>
> (Kelly, pregnant at 18, Vava'u)

Mary explained that she had not tried to have an abortion, but she had heard of lots of ways to do it:

> *The ways of aborting [fakatō tama] that I have heard from friends and my relatives is you can take this kind of pills. And drinking the bleach, repeatedly jumping from a higher place and also you can go and sleep with other men different from the baby father … that can make you lose the baby.*
>
> (Mary, pregnant at 18, Ha'apai)

Kelly was living with her father when she found out she was pregnant. Her father tried to make her have an abortion:

> *I was so scared of what would happen if my dad found out … When he found out he was trying to tell me to abort the baby. He forced me to take medicine, he forced me to drink strong tea and strong coffee … When I woke up one morning he had made it, he told me to just take the cup and come to his room, and he told me to sit down beside him and drink all of it. It tasted like … strong … different … I drank the tea, and he also told me don't eat any food from the morning 'til evening … he just gave me Panadol, five to six Panadol to take … maybe two times a day. However, I only took the medicine one time, and when he told me to take it the second time, I rushed to my room and threw it away. I texted my mum and told her to call my dad to tell him to pay my fare and bring me back home, and that is why I am here. My mum helped me … It's not only my father who told me to abort the baby. Even my aunty, she also lives in Fiji, also she was angry at me, she also told me to abort the baby. When he gave me all those things and forced me to take it, I thought, is he a good father or not? Sometimes I thought, how would he feel if this was his child? Did he ever do this to his wife when she was pregnant? That's what I was thinking [participant crying].*
>
> (Kelly, pregnant at 18, Vava'u)

One of our young participants explained that early in her pregnancy her boyfriend told her that they could try and abort the baby by having sex. She had never heard of this method of abortion before but was stressed and scared, so she listened to her boyfriend and had sex. It did not work.

Ingrid said that her mother scolded her for doing activities that could cause an abortion:

> *The truth is, I didn't know that carrying heavy things is not good. I went and stayed at one of my sisters' place and I didn't let them know I was pregnant. I carried heavy things and I went and jumped off the wharf when we went swimming. But when my mother took me back to live with her because she already knew I was pregnant, she told me that was bad. And she told me I'm heartless because I'm trying to abort my baby. I sat down and think to myself maybe it's god's plan that I have the baby, and maybe the truth was I did try to abort the baby but someone else was in charge … I don't know …*
>
> (Ingrid, pregnant at 18, Vava'u)

Some of the young participants expressed that their main motivation for considering an abortion was because they were so scared to tell their parents that they were pregnant:

> *I am so afraid of my father, if he'll notice [I'm pregnant], but I know like doing abortion, even though I was scared of my father I can't do it.*
>
> (Brooke, pregnant at 18, Tongatapu)

In some situations, the baby's father encouraged the young participant to try and abort the baby. In others, it was the baby's father who discouraged abortion. As the participants said:

> *He didn't accept it, he told me to abort the baby.*
>
> (Mary, pregnant at 18, Ha'apai)

There was a time I was thinking of dropping the baby [fakatōki] but the baby's father encouraged me and told me not to drop the baby, to love him … I told him no I will go and drop the baby … and it's like someone came to my thought and told me not to drop the baby … and so my thoughts changed and I didn't …

(Debra, pregnant at 17, Tongatapu)

Some of the participants objected strongly to abortion:

… you know I believe that doing abortion is like just killing a human. I would not do it. I would cry, but I won't accept it. I have heard of it [abortion], but I don't know those girls. I see it on Facebook where girls would dump their babies in the rubbish dump and so on. I don't know those girls. I think those girls are not from Tonga though … When I got pregnant my best friend suggested that I should abort it. I told her no because to me that is murder. Even my boyfriend told me to get rid of it because he doesn't want to look after it and raise it. But I told him that I will take care of the baby and he can leave.

(Angela, pregnant at 16, Tongatapu)

Our older participants (grandmothers and/or women aged 50 years and older) outlined different methods of abortion that they had heard young girls using:

… because abortion is illegal in Tonga and so some of them have to keep that a secret you know … the young girls like that they go and become involved in physical exercise or even carry heavy things, like in laundries they go and fill up buckets of water and try to take it because they say that it will, especially in the like one month – two month, when the baby hasn't yet become a fully completed foetus, so that's what I heard. Or they become involved in sports like basketball so they jump, and the baby might come out. And of course, we've heard about the drinking of the bleach … and taking of unnecessary and irrelevant pills.

(Andrea, 47, Tongatapu)

… there was a girl she got pregnant when she was still in school and she drank the bleach. It went wrong or maybe it was too late when she drank the bleach, nothing happened but when she gave birth, her baby was handicapped, the baby is a big girl now … she went to primary school … when she's about to go to high school they didn't let her go to school anymore.

(Candice, 46, Vava'u)

A range of methods was utilised and described to attempt to induce a miscarriage. Many of them were dangerous to the health of the young women.

4.1.4 Family attitudes towards the pregnancy

All our young participants expressed that they were scared to tell their parents they were pregnant. In most situations, the parents' initial reaction was anger, disappointment and hurt. Several participants expressed that their fear was even greater because their parents were figureheads in their church. However, in most cases, the parents' anger and disappointment changed to love and support.

Angela described the reaction of both her parents. They were angry, but quickly highlighted that they would support her and the baby as best they could. Her father explicitly told her not to try to 'get rid' of the baby:

> *My mum comforted me, and I apologised to her about the lies. She said it's okay, it's just she's annoyed about me lying to her … At times, I do regret not being obedient to my parents because of what has transpired, so I try my best now to be obedient … When my father found out, he was angry. He sat me down and he asked me all these questions about what happened to me. He said that I should have made better choices because of his role at church. The people at our church will point a finger at him not being a better parent and it sort of embarrassed him. But then he encouraged me to be brave and not to try to get rid of the baby because they will provide everything for my baby, and it will be their first grandchild.*
>
> (Angela, pregnant at 16, Tongatapu)

Brooke described a similar reaction from her parents and particularly her father, a church elder:

> *[I wasn't afraid] that he would hit me, he would growl. I was the girl that my father loves the most and trusts me. I feel like I would hurt his feelings. I didn't want to let him know. And plus, he was kinda … he always goes to church, you know, like Tongan thing. I feel like he would feel embarrassed because he was kind of like a Pastor … When he found out it was just so hard for him to accept it … I was so afraid to share with my mum because I'm very close with her … she was angry but then after that then she cared about me. She looked after me to eat healthy food … I did really get good support from all of my family and they love me. I was happy. I feel that I'm not left alone or left behind. They care about me and they were saying, I can't wait to see that baby. I was so happy when I heard my dad saying that he will be a grandpa and also my mum being grandma. I was happy.*
>
> (Brooke, pregnant at 18, Tongatapu)

Debra's experience was similar:

> *I was scared. I didn't know how I would go talk to my father. I was going to tell him the truth, but I was scared he would beat me up … So I kept it to myself and decided to hide it. There was a thought that came to me not to tell but hide it until I gave birth … At home I tried hiding my stomach … but my stomach was starting to show so I tied my stomach and my father saw. He didn't say anything. The next morning, he called me and asked if I'm pregnant, if I am, I should tell him the truth, it's better to tell him straight than me getting into difficulty somewhere. I told him I'm sorry and yes, I'm pregnant, and they took care of me up to the time I gave birth, and the baby is adopted.*
>
> (Debra, pregnant at 17, Tongatapu)

Some participants were so scared to tell their family that they hid the pregnancy until as close to their due date as possible – six to seven months gestation, in some cases. Cara was living with her older sister and hid her pregnancy until she was seven months pregnant:

> *… we went swimming at the pool one day and I stood up and my T-shirt was very tight on my stomach … that day, I didn't tell my sister she just saw my stomach and knew that I'm pregnant … When we get home my big sister almost beat me.*
>
> (Cara, pregnant at 17, Tongatapu)

Kelly described that her father never accepted her pregnancy and tried to make her have an abortion. One year after the birth of her baby, her father still has not spoken to her:

> *When I tested myself, it said that I was pregnant. I was surprised. I cried, and I was so scared of what would happen if my dad found out. It's okay with my mum, she will understand me, but my father, he doesn't like it. When he found out he was trying to tell me to abort the baby. He forced me to take medicine, he forced me to drink strong tea and strong coffee … I have to fix things with my dad. I have to ask him for forgiveness or that he will accept me and my baby in this family. But at the moment, he hasn't forgiven me yet, he doesn't want to talk to me, he just calls and talks to my mum, my sister and my brother, he hasn't asked anything about me.*
>
> (Kelly, pregnant at 18, Vava'u)

4.1.5 Community attitudes towards the pregnancy

When most of our young participants found out that they were pregnant, they feared that their community would react with stigma, gossip and exclusion. This was true in many circumstances, as these participants said:

> *… the people at my church were talking about me and I know they have noticed my problem [palopalema]. But their focus was on my parents because my father is the stewardship of our church. But my parents are very strong, and they told me not to be discouraged by my problem because the people in our church do not give us any means of support or buy food or diapers for my baby. So I just ignore them because my parents are right. There are some families who don't visit us anymore and some families told me that it will be okay. My family is good. Even though people at church talk bad about me I still attend church and go home. And I ignore them.*
>
> (Angela, pregnant at 16, Tongatapu)

> *The way they look at us, they already say that this is the end of our life. And when she has her baby, her life will not continue, and she won't be able to study or lead a good life.*
>
> (Mary, pregnant at 18, Ha'apai)

> *I know people talked when I was pregnant, but I didn't pay attention to the words and bad things they were saying about me. If I care about it, I would be sadder.*
>
> (Tina, pregnant at 18, Ha'apai)

Some of our young participants decided that, despite knowing that there would be negative attitudes in their community towards their unplanned pregnancy, they would not withdraw from their normal socialising:

> *… for me when I was pregnant, I feel like this is not something to hide. I'll be just the same [name removed – interviewee referred to herself] and go out and have fun and be with my friends. Not staying home and being locked up and saying I'm pregnant, people will say that I am this and that. But sometimes it's just their imagination, it's not what people say but just you think that they will be like that after that, but it's not happening. When there are social nights, like the religion stuff, I go and enjoy. Be happy.*
>
> (Brooke, pregnant at 18, Tongatapu)

4.1.6 Marriage

Conversations and perspectives on marriage were very mixed in our sample. Some families questioned our young participants about the possibility of marriage:

> *… ask me questions about who the father is, and if he ever mentioned to get married. 'Cause if he really loves me, he will say it before, if he knew it [that she was pregnant]. Then I told them he knew but doesn't want to get married.*
>
> (Brooke, pregnant at 18, Tongatapu)

Kelly's partner suggested marriage, but she wanted to mend the situation with her father first:

> *When he [the baby's father] found out that I was pregnant, he did everything, he asked me to marry him. When I told him about my family, he told me, 'How about if we run away and get married?' He wants to take care of me and the baby. However, … I had to fix everything before it goes back to a normal life.*
>
> (Kelly, pregnant at 18, Vava'u)

In some situations where marriage was proposed, the young participant declined:

> *… right now, his family tried to reach us, me and the baby, for marriage. In my opinion, I don't think marriage is the solution. Just told them to forget about us, because we don't really need them anymore and stuff … My parents don't want me to be with him again, because he wasn't there [when she was pregnant].*
>
> (Heather, pregnant at 18, Vava'u)

> *I had occasional thoughts that it would be good if we got married … to get married for the sake of the baby … but there were other times I thought the only reason we would be getting married would be for the baby.*
>
> (Georgia, pregnant at 18, Vava'u)

In some situations, the parents disagreed about the possible marriage of their daughter. The main reasons for a parent not wanting their child to marry was because they saw marriage as something that would inhibit their aspirations for their daughter to return to finish her studies and get a job when her baby was a bit older. Also, in some cases, they had a very low opinion of the father of their daughter's baby because he got their daughter pregnant unplanned and out of wedlock. He was therefore not a worthy husband for their daughter. As these participants shared:

> *When my father arrived, he was furious when he saw the guy. He called my mother so they could talk … when they talked, they spoke about marriage. The guy agreed to marry me, but it only depends on my family's decision … But talking to my father is a waste of time because he doesn't want me to marry the baby's father. But my mother wants me to marry him because of my baby.*
>
> (Ebony, pregnant at 17, Tongatapu)

> *At first my mother told me to marry him, but my dad disagreed because of study and stuff. I can't really do the homework and stuff, and the housewife jobs.*
>
> (Heather, pregnant at 18, Vava'u)

> *The boy's parents asked me if we could get married, but my mum said no. My mum said after I gave birth I could go and find a school and finish my education.*
>
> (Tammy, pregnant at 15, Vava'u)

4.1.7 Motherhood

Most of our young participants described that the main support they received in being a mother came from their family. Despite early anger and disappointment from family members, most of our young participants and their babies were still living with their parents or close relatives. In most cases, both the young mother and the child were being financially supported by their family:

> *I have my grandmother, sister and my cousins, my big sister. Yeah. Them. They taught me how to become a mum.*
>
> (Fran, pregnant at 17, Tongatapu)

Many of our young participants described that when they gave birth and saw their baby, their perspective and emotions changed immediately. As these participants said:

> *When I gave birth … once I see her, I forgot everything [crying]. I regret thinking about abortion and stuff.*
>
> (Heather, pregnant at 18, Vava'u)

> *I just have that feeling that my child gave me more strength and it made me not give up life. It's one thing that I'm living for and that's why I love becoming a mum. When I had my child, I feel like he gave my life more meaning, how to live life, why I'm still living.*
>
> (Fran, pregnant at 17, Tongatapu)

> *When I became a mum, it gives me compassion towards other young mums who are going through the same situation as me. When I see other people who are like me, I will give them encouragement to be strong. But so far, I feel content … My whole pregnancy was very hard and painful because my heart was broken, my boyfriend hurt me a lot. But when I gave birth to my daughter it changed everything. I was happy to see her. She was all mine. I'm relieved that the father of my baby and his family will never have anything to do with her.*
>
> (Angela, pregnant at 16, Tongatapu)

> *I feel like I have one heart with my son. That time, I used to hate kids if I see kids, I don't like them, but when I gave birth to my son, I felt special love … like I felt a real love towards my son.*
>
> (Ingrid, pregnant at 18, Vava'u)

Only one of the young mothers in our sample was not living with her parents. She was living with the parents of the baby's father because her family members all lived abroad. The baby's father did not live with them. She said:

> *They [her baby's paternal grandparents] asked me if we can stay together, because of my daughter … they are nice.*
>
> (Cara, pregnant at 17, Tongatapu)

Only one of the participants was cohabitating with the baby's father, in her parent's house. She described that she really loved the baby's father, he had a good attitude and she felt safe with him. They had plans to get married soon.

Sometimes financial support was provided by the father's family, but this was not common. One young participant described that motherhood has been incredibly hard for her:

> *It's hard, very hard. Most of the time at night I cry, because sometimes I ask myself, how can I find other ways to earn money to support my child, even my family, because no one in my family has helped me for support, even my sister, my brother, they never help, they just stay home and do all the stuff, but never work, they do not have any work anywhere.*
>
> (Kelly, pregnant at 18, Vava'u)

4.1.8 Adoption

Some of the young participants had given their baby for adoption to a family member, usually a cousin. The young participants' main motivation for giving their baby for adoption was to be able to go back to school and complete their studies. Debra gave her baby for adoption to her aunt's daughter when the baby was three months old:

> *When I gave birth, my aunty came and said she will adopt the baby so I can go back to study because it's not time for me … my father didn't agree, he said no … But then she [the baby] got sick, so we went to my aunt's house with my baby and slept there so that my aunty will treat my baby. We stayed there until she got better, and my aunty went and bought a stroller and baby bed. They told me when the baby gets better, I am going back home, my father won't have a say … My father was surprised when I called him to come and he asked if we are both coming back and I told him no, only me … my father came and talked with them. My aunt's daughter couldn't let go of my baby. My father told them to let us go back with the baby and we did. The next day they arrived again, they couldn't leave me alone, and they begged for the baby to let them raise her so I could go back to study and my father told me to let them have the baby and I told him yes, it's alright. So they took her and adopted her.*
>
> (Debra, pregnant at 17, Tongatapu)

Debra described that she was very sad at first, but slowly became used to the situation:

> *That day I wasn't able to sleep, I cried and my father woke up at night and asked me if it was because of my child and I said yes, I couldn't stop thinking about her. Then, after a while, I get used to it and don't think about it so much.*
>
> (Debra, pregnant at 17, Tongatapu)

Heather gave her baby for adoption to her cousin when the baby was three months old:

> *When my parents found out, I have a cousin who has no child. She asked for the baby. She lives in the States. So, I thought that the baby would have a better life with a dad and a mum, so I agreed for the adoption.*
>
> (Heather, pregnant at 18, Vava'u)

When asked how she now felt about that decision, Heather responded:

> *Not sure yet. It's the only way for a better life though.*
>
> (Heather, pregnant at 18, Vava'u)

Angela also stated that she was considering giving her 12-month-old baby up for adoption, so that she can return to school:

> *Well, I have this plan with my mum. Her brother who lives in Australia and married an Australian woman, they have already written to me and asked if they can adopt my baby. They say they will look after the baby and I can return to school to finish and get a job.*
>
> (Angela, pregnant at 16, Tongatapu)

In some circumstances, there was no explicit mention of adoption, but the young participants explained that their parents and relatives were looking after the baby, or were planning to do so, so that the young participant could return to school:

> *My parents and mostly my relatives … they wanted me to go back to school and leave the child with them just to take care and then get a job.*
>
> (Fran, pregnant at 17, Tongatapu)

4.1.9 Relationship with father-to-be

About half of the young participants in this study had met the boy to whom they became pregnant through a school function or family friends. The other half first met the boy or man to whom they became pregnant through Facebook. Some interactions on Facebook began through mutual Facebook friends, while others began by the boy or man sending a 'friend request' to the young girl. At the time, the girl was a complete stranger to him, as these participants conveyed:

> *I met the guy through the internet. My dad brought home a mobile phone. He didn't want me to use it, but I did. I went into Facebook, that's the first time I used a mobile phone. I was still in Form 5. I went into Facebook and I saw the guy's page adding me … I accept his friend request. I didn't know he liked me and something like this would happen. We contacted each other through this and gets to a time we agreed to meet in person.*
>
> (Ebony, pregnant at 17, Tongatapu)

> *I met him in Facebook. A friend of mine made me introduce myself to him … and we started chatting.*
>
> (Tammy, pregnant at 15, Vava'u)

In the relationships that started through school functions or at church, the age of the boys was similar to that of the young participants. Where the initial interaction began through Facebook, the boy or man was usually a few years older. Most of the young participants said that they would sneak away from school or from their house during the night to meet up with the father of their baby and would lie to their parents about where they had been and what they were doing. As Debra and Fran said:

When we have the big examinations, I didn't go to school, I ran away … I left … I ran away with a guy, that's how I got pregnant. When I went back home, my family didn't know.

(Debra, pregnant at 17, Tongatapu)

It started when I go to school … sometimes I sneak out of school and I go out with the guy … Usually he comes and picks me up … it was almost three times a week … He finished school already … [his age is] about 20 years old … we met on Facebook.

(Fran, pregnant at 17, Tongatapu)

Angela met the young man to whom she became pregnant on Facebook. After chatting through messages for a short time, he offered to come and pick her up from a school function. Angela agreed and they drove to a quiet place to talk. He asked how old Angela was and she replied that she was 16 years old. He was 23 years old. Soon after, they began a sexual relationship. Angela said:

… we embarked on a sexual relationship where my parents thought I was at school, but little did they know that my boyfriend would pick me up. Nearly every night or in the early hours of the morning I would sneak out and go to his house and would come back at dawn. And this is where the problem started, we had sex many times. My mum would give me a hiding asking where I have been and stuff. However, I would always lie to her.

(Angela, pregnant at 16, Tongatapu)

Cara met the father of her baby at a school function and would skip school to see him:

… we met at a school function where all the Wesleyan schools showcase their handicrafts [the Free Wesleyan Church Schools bazaar] … and we start dating. When I go to school, I always run away and went to the guy's place and I start staying with him. And it was during the school holiday and I was staying with my big sister because my parents were overseas. My sister went to a dinner and I was texting with the guy and that's when I went to him and sleep with him … that's how I got pregnant.

(Cara, pregnant at 17, Tongatapu)

The fathers showed a varying level of commitment to our participants when they became pregnant, with some continuing to have sexual interactions with other girls at the same time. Angela's relationship with the young man to whom she became pregnant deteriorated within a few months. Angela suspected that she was pregnant, but had not told the father. She said:

> *I was still with my boyfriend and he didn't pay as much attention to me and hurt me [fakamamahi]. He would see other girls apart from me and I would see this and feel hurt [mamahi] but I would tolerate it and try to ignore it. After he had sex with them, he would come back to me. I have seen him with my own eyes, and it hurts me a lot so yeah.*
>
> (Angela, pregnant at 16, Tongatapu)

Brooke's relationship with the father of her baby was similar:

> *… the baby's daddy, he did not care like what he said before because he had many girlfriends … He doesn't tell me 'I have a girlfriend'. He told me 'I have lots of girlfriends'. I was like okay and I smiled but he doesn't know the pain inside me. I just smile to try and show him that I accept it, even though it's so hard but I have to … I fall for his words but not his actions. But then I realise I keep falling for his words. He kept telling me that he cares, and he loves us. But we never see each other when I was pregnant …*
>
> (Brooke, pregnant at 18, Tongatapu)

Fran's experience was also similar:

> *I found out he went around with some other chicks … and I believed it was best to let him go. And then I just found out I was pregnant, and I told him about it. People said despite that fact that we'd broken up he still has the right to know about it.*
>
> (Fran, pregnant at 17, Tongatapu)

There were mixed reactions from the fathers when they found out about the pregnancy, as these participants said:

> *… my boyfriend had blocked me on Facebook when he found out about my pregnancy. He got what he wanted [long sigh]. His family doesn't know anything about me and the baby. But I'm okay with that … my boyfriend told me to get rid of it because he doesn't want to look after it and raise it. But I told him that I will take care of the baby and he can leave, and I will have no problem finding a father figure for my baby. So he verbally abused me and left and I cried because now I know he only used me, he never loved me … My whole pregnancy was very hard and painful because my heart was broken, my boyfriend hurt me a lot … I haven't seen my boyfriend ever since [I was pregnant]. And his family doesn't acknowledge me and the baby …*
>
> (Angela, pregnant at 16, Tongatapu)

When I told him, he said I was pregnant to someone else or something like that. I just coped with it. I let it be. And tell him at least I told him that I'm pregnant and that he's the father, and if he doesn't accept it it's fine with me … When I was six or probably seven months pregnant, he contact back asking about the baby but I was really pissed off so I said I don't want him anymore because he's probably around with those girls and I didn't want him.

(Fran, pregnant at 17, Tongatapu)

Some of the fathers were absent until the baby was born, at which point they sought a relationship with their child. Brooke did not see her baby's father until the child was born:

… when I gave birth, I was surprised that he came to the hospital and looked for me and the baby … He wanted to let my family know that he is the father of the baby and then my mum respected him because he came up and see us. Right now he comes once a week, every Sunday evening and gives me 100 for the baby and also for me to eat to feed the baby. We talk … The truth is that I still love him, but I try so hard not to show it because he's not my husband. I'm a girlfriend. So I keep thinking that if I love him I show it by taking care of the baby and all … I can see that the more I don't force him he knows what to do. I'll just see if he loves us, he will come home and see us … Me and him there's nothing. But for him and the baby there's like … he has a feeling and he comes home and sees the baby.

(Brooke, pregnant at 18, Tongatapu)

Brooke explained that the paternal grandparents come to visit her sometimes and they warned her about their son and his behaviour:

… the mum told me to block her son. She said I should ignore him. And the father told me to never believe his son, he's a liar.

(Brooke, pregnant at 18, Tongatapu)

Some of the young participant explained that the baby's father tried to keep the baby secret from their friends and new girlfriends. Brooke mentioned that her baby's father never made any posts on Facebook about their baby and he set his profile status to 'single'. Brooke was disappointed by this so she 'blocked' him on Facebook:

… he never posts with the baby or mention it. Also, his thing is single. There is no relationship or complication.

(Brooke, pregnant at 18, Tongatapu)

4.1.10 Older women's views

Some of our young participants talked about the disappointment from their grandmothers regarding their unplanned pregnancy:

… my grandmother, she told me to stay and look after my baby because it's my own foolishness/silliness/ignorance [vale]. She told me not to get pregnant again …

(Tina, pregnant at 18, Ha'apai)

Some of our older women participants talked of the importance of not scolding the girls too much, in case it causes them to have an abortion:

> *If that mistake happens, we need the full support of families instead of ridiculing and scolding and giving those harsh words and things like that, because that's one of the pressures they put them under, to try to abort and terminate …*
>
> (Andrea, 47, Tongatapu)

Andrea outlined that there are specific situations in which young girls should be able to access abortion services:

> *… we don't encourage that [abortion], but at the same time I always support that there are services because we people are different from each other. Incidents happen like rape, incest. There should be places young girls can easily run to and access services to stop and prevent unwanted pregnancies and things like that.*
>
> (Andrea, 47, Tongatapu)

Andrea also talked about the importance of educating young people to try and prevent unplanned pregnancy from happening. She said:

> *I think it's very important for us older and elderly women to talk to young women, talk to them. Having children, we believe from our Christian faith, is a gift and blessing from God. At the same time, they need to be well-cared for, not just born and abandoned and not cared for properly. So, it's very important for us to sit down and talk nicely with young couples or young mothers and fathers, to make good, informed choices …*
> *So, it's important as men and women to think properly and make good decisions instead of just sleeping around and, 'I have a daughter, I have a son'.*
>
> (Andrea, 47, Tongatapu)

A few older participants discouraged the use of contraceptives because of their side effects, as Candice stated:

> *For me, using the contraceptives is bad for us women and also man … controlling birth is good, but I don't believe we should go to the hospital because a lot of people in our village and also myself is unhealthy from using these methods from the hospital [condoms and injections].*
>
> (Candice, 46, Vava'u)

Dorothy outlined that she thought adolescent unplanned pregnancy was occurring because laws that allowed parents to punish their children had changed.[5] She suggested that these laws should be reinstated to address the issue:

> *I think the reason why these problems are happening because of the law. That time, the parents punished their children and it can stop their children from getting in trouble. Now, the law changed, and the children makes their own choice and the parents can't control them anymore … Go back to the old law. Allow the parents to control and make decisions for their children until they are 18, legal age. Let the children stay under their parents' control so they could listen to their parents. That's the only way we can prevent this, to get back the law so the children can listen to their parents and so these problems will decrease.*
>
> (Dorothy, 42, Ha'apai)

5 Although not explicitly stated by the participant, it is likely that she was referring to the Tonga Family Protection Act 2013. This is an Act to provide for greater protection from domestic violence, introduce protection orders, clarify the duties of the police, and promote the health, safety and wellbeing of victims of domestic violence and related matters.

4.1.11 Aspirations: hopes, plans, fears and regrets

Almost all of the young participants expressed aspirations to undertake more studies and get a job. Some of the participants who did not complete high school explained that they could go to the University of the South Pacific campus in Tonga to finish the high school studies that they had not completed. As these participants said:

> *I wish to complete my studies so I can get a job and also I want to go overseas and provide for my family.*
>
> (Angela, pregnant at 16, Tongatapu)

> *That's what I wish for [to get a job or do more study], but first I must wait for my daughter to start school before I start looking for a job.*
>
> (Cara, pregnant at 17, Tongatapu)

> *I've planned that after this I'd go back to school next year and start to find a life for me and my child and get a job to feed him and all those.*
>
> (Fran, pregnant at 17, Tongatapu)

Heather had very recently given her baby for adoption to her cousin in order to focus on her studies and her future. She said:

> *I would miss her and everything [her baby], but I was thinking of furthering my studies, to get educated more, and just to work on my career. Because I have a job now with the government. So, just to work on myself first before I look further for a husband or anything, or even date.*
>
> (Heather, pregnant at 18, Vava'u)

Some of our young participants had recently graduated from high school when they found out they were pregnant. Their pregnancy put a halt to their plans for their immediate future. Brooke was in New Zealand with her mother, looking for a school and a job, when she found out she was pregnant. She said:

> *We went to New Zealand because my mum wanted to help me to get a better life and go and find a school or get a job, but then when I was pregnant, I had to come back here because I can't stay there.*
>
> (Brooke, pregnant at 18, Tongatapu)

When asked how she felt about this change, Brooke responded:

> *I don't know what to say. It's just a big change and there's nothing to do so you had to go that way and try to deal with it and focus on it. I was trying to focus on my study, but then I got pregnant, so I had to focus on the baby before study. But I was thinking I will continue studying after giving birth, but first I will try to take care of my baby then I'll go do study.*
>
> (Brooke, pregnant at 18, Tongatapu)

Some of the young participants' hopes for their future were focused on raising their children and providing them with opportunities for their lives:

> *To do my best and raise my daughter so she will grow up and choose a different path.*
>
> (Cara, pregnant at 17, Tongatapu)

Many of the young participants spoke about regret for disobeying their parents. They said:

> *I'm staying home and feeling sad from what I did. Because I see the big mistake I made, my parents worked hard to pay for my school fees, but I ran away from school. I cried and pray to the Lord and asked him … [crying] to forgive me for my sins and everything that I did that time that hurts my parents …*
>
> (Debra, pregnant at 17, Tongatapu)

> *My goal was to get a job to help my family. Now I won't achieve my goal. It won't happen because of the problem (palopalema) that happened to me.*
>
> (Tina, pregnant at 18, Ha'apai)

> *Today, I regret it, I regret not listening to my parent's advice … they were very unhappy [lotomamahi] with my behaviour. Now I feel that I have lost all the opportunities from my parents. And I can see it today.*
>
> (Ebony, pregnant at 17, Tongatapu)

> *I told my mother, this is the end. I'm never going to make the same mistake I made. I want my life to go back to what it was like before. I don't want my son to grow up and follow my footsteps.*
>
> (Ingrid, pregnant at 18, Vava'u)

> *I was going to treat it in a different way when I stay with my dad. That's how I'll change everything, change my attitude, my mind and everything of my future.*
>
> (Kelly, pregnant at 18, Vava'u)

4.2 Social and structural factors

This section discusses the social and structural factors that impact on adolescent unplanned pregnancy, along with the experiences and decision-making related to adolescent unplanned pregnancy, as these emerged through the interviewee narratives.

4.2.1 Access to education

All of our young participants were either still in high school or had recently graduated when they found out they were pregnant. Those who were still in high school all left immediately, for a variety of reasons.

Angela left school when she had her pregnancy confirmed at five months because her mother said that it would be too embarrassing or shameful for her to stay:

> *I left school after my first clinic appointment [at five months pregnant]. Mum said don't go back to school as it will be embarrassing/shameful [fakamā] and will create more problem [palopalema] for you.*
>
> (Angela, pregnant at 16, Tongatapu)

Cara was living in Tonga with her grandparents when she became pregnant. She told them that she wanted to leave school and go and live in Fiji with her older sister, who was working there. She did not tell them that this was because she was pregnant. She said:

> *I left school when this happened [pregnancy] and went that month and stayed in Fiji for two years and I gave birth there. And I didn't go to school.*
>
> (Cara, pregnant at 17, Tongatapu)

Some of the participants mentioned that education about sex and contraception is not discussed at all in school. And the only time they had discussed it was at church. Tammy remembers that in church she was told:

> *… just get pregnant in the right time when you get married, and that's the right time to have a baby. But for now, no. You just have to go plan on your education and finish your missionary or whatever, and then you get married. And then that's the right time to get pregnant.*
>
> (Tammy, pregnant at 15, Vava'u)

4.2.2 Access to prenatal and post-pregnancy healthcare

Most of the young participants' first interaction with a health facility was to check or confirm their pregnancy. Almost always, they were escorted by a parent or family member who arranged the visit. Some participants presented within the first few months of their pregnancy. However, as many participants were scared and tried to hide their pregnancy, they did not confirm their pregnancy or have any interaction with a health service until they were four or five months pregnant, sometimes later.

Cara was living with her older sister and hid her pregnancy from her until she was seven months pregnant. When her sister found out, she took Cara to a health clinic. Cara recalled:

> *We went to check up and the nurse asked me why I didn't come earlier, and I told her because I was scared of telling my sister that I'm pregnant.*
>
> (Cara, pregnant at 17, Tongatapu)

Angela's mother noticed that something was different and arranged for her to go to the hospital. Angela was five months pregnant when the pregnancy was first confirmed. She said:

> *My mum cried when the nurse said that I'm pregnant. The nurse reassured her that I'm not the only one who is getting pregnant young, there's many young mums. The nurse's concern was that I continue to attend appointments. They created a chart for me so always attended my check-up.*
>
> (Angela, pregnant at 16, Tongatapu)

When asked about postnatal care, many of the participants stated that they had not been back to a health service since their baby was born.[6] Kelly's baby was 12 months old. When asked about visits to a health centre since birth, she stated:

> *Not yet. She hasn't been checked for any health.*
>
> (Kelly, pregnant at 18, Vava'u)

6 Unfortunately, these participants were not questioned further at the time of the interview to determine if this also meant that their babies had not received any routine vaccinations.

4.3 Knowledge and practices of traditional methods of fertility limitation

Very few of our young participants made any mention of traditional methods of fertility limitation. One participant explained that she knew of a Tongan medicine called *pua-tonga*[7] that is used for abortion:

> *… there is a Tongan medicine, we call it pua-tonga. They use the leaves, they smash them, then drink the liquid.*
>
> (Kelly, pregnant at 18, Vava'u)

Some stated that they had heard of a juice for abortion, but did not know anything about it. Mary said:

> *I heard that there is a juice that you can drink but don't know much about it.*
>
> (Mary, pregnant at 18, Ha'apai)

Others had heard of a variety of physical methods to have an abortion. Tammy said:

> *I heard about it that you can just wear a tight-waist thing to just pull it and squeeze the stomach to be small so it can kill the baby. My cousin used one and the baby dropped.*
>
> (Tammy, pregnant at 15, Vava'u)

7 Cambie and Brewis (1997), in their book *Anti-fertility plants of the Pacific*, outline that 'pua-tonga' is the Tongan name for the flowering plant *Fagraea berteriana* A.Gray. They do not outline how the plant is used in Tonga. However, they cite Briggs (1985), who states that in Futuna the plant is used as an abortifacient by ingesting a decoction of scrapings from the trunk of the tree.

Our older participants were also aware of some traditional methods of fertility limitation. Some participants were able to explain the methods in detail, while others could only give a broad overview. They said:

> *One method I knew was from a mother who shared me about her daughter trying to abort her baby in case her father knows … her daughter used this type of grass called matamanu remember it's a long leaf and she cut off the soft part and put inside her. This girl studied biology in school, and she knew that there's water inside that protects the baby, that if she used this method to break the water, the baby will come out. That's what the mother shared with me, that she asked her daughter, and this is what she used … she was two months pregnant … the mother just found out her daughter aborted the baby.*
>
> (Barbara, 54, Vava'u)

> *I just heard that there are some kind of trees, or plants, that you can drink and … but I'm not sure. Because people don't encourage that since it might have impacts to on the women's health. They're afraid, otherwise not losing the baby but can cause harm to the mother.*
>
> (Andrea, 47, Tongatapu)

Several older participants specifically mentioned using the *si* plant[8] to abort a pregnancy. All explanations were similar, involving the insertion of the young leaves of the plant into the vagina.

Candice shared:

> *They used the si plant, they take the softest leaf, if they are still one or two months and put inside them and that causes the baby to come out. I saw with my own eyes, a woman who was already pregnant and this method is a fast method of getting rid of the baby … the si plant, when you put it inside you, it's fast, maybe after few minutes the baby comes out.*
>
> (Candice, 46, Vava'u)

One older participant recalled the use of a tea for having an abortion:

> *When I was still in high school … there was a woman who taught [at the school]. I knew she was pregnant to a teacher and I went to school and I came back and saw her lying down, she was still young … she asked me to go get some water and bring her food. I was wondering what happened then I found out she was aborting her baby. When I went to clean her room, I saw a big bucket and I saw the tea. She was using the tea, a lot of tea and she used a piece of cloth, a big one and put the tea inside and boil some water and mix with the tea. She told me everything herself and I also see it with my own eyes. She drank the tea and when it start working inside, the blood automatically comes out … because the baby was not fully formed …*
>
> (Candice, 46, Vava'u)

8 Cambie and Brewis (1997) outline that the 'si plant' is the Tongan name for the flowering plant *Cordyline terminalis* (L.) Kunth. Several sources of literature note its use to abort pregnancy in the Pacific, including in New Caledonia (Rageau, 1957), Vanuatu (Baker, 1928), Fiji (Seemann, 1862) and Hawaii (Gutmanis, 1979).

4.4 Some limitations and considerations from data collection

The 170-plus islands that make up the Kingdom of Tonga are spread over 700,000 square kilometres of the South Pacific Ocean. Whilst the majority of the population live on the main island of Tongatapu (74%), followed by the divisional areas of Vava'u (14%) and then Ha'api (6%), there are 40 inhabited islands across the Tongan archipelago (Tonga Statistics Department, 2017). Data collection in this study was undertaken in the three most populous divisions (Tongatapu, Vava'u and Ha'api) where 94 per cent of the population reside; however, it is important to note that the findings in this study are limited with regard to how well they can represent the experience of, and make recommendations for, adolescent girls all over Tonga. The study sample was non-random and as such it cannot claim, nor was it intended, to be representative of all unplanned adolescent pregnancies in Tonga. In order to prevent misinterpretation or misrepresentation of the data, the results section purposefully includes words such as 'a few,' 'some' and 'many' instead of exact numbers.

Participant recruitment was approximately 30 per cent through the Talitha Project, 30 per cent through the Tonga Family Health Association, and 40 per cent through participants' 'friends of friends' who had not had any contact with either organisation. The younger and older participants recruited through the Talitha Project were made aware of the study by Talitha Project staff or through word of mouth, including the circulation of 'Invitation to Participate in Research' forms (in English and Tongan). Most of the young participants had attended, or were planning to attend, the Talitha Projects programs which focus on empowering girls and young women aged 10–24 years to gain increased awareness and control over their bodies and their lives. None of the young participants stated that they had attended any Talitha Project programs prior to their pregnancy. Younger and older participants recruited through the Tonga Family Health Association had recently attended an outreach clinic or workshop and received an 'Invitation to Participate in Research' form, or had been given the form at their house from the community nurse in their area. All participants in the study were offered 'Invitation to Participate in Research' forms to give to friends or neighbours, and forms were also distributed in local marketplaces. The remaining 40 per cent of participants were recruited through this method. All participants contacted the Talitha Project, Tonga Family Health Association or the Tonga Team Leader (C. Linhart) to express their interest to be involved in the study. All participants were offered the opportunity to be interviewed in English by the Tonga Team Leader (C. Linhart), or in Tongan by trained interviewers from the Talitha Project or the Tonga Family Health Association. The recruitment of participants from a variety of sources helped to ensure that the diversity of experiences of adolescent unplanned pregnancy in Tonga were captured.

The research team found that while some young participants were quite tentative and shy prior to their interview, they generally opened up quite a lot during the process of being interviewed, particularly the participants who were interviewed by the Tonga in-country Team Leader (C. Linhart), an Australian born woman aged in her mid-30s. Ms Linhart conducted all interviews that were undertaken in English with the young participants (six interviews of the total 15 interviews with young participants). These interviews were generally longer and included a greater depth of intimate detail about the young participants' experiences of adolescent unplanned pregnancy, compared to the interviews undertaken in Tongan. A possible reason for this may

be that in addition to reiteration by all interviewers of the strict confidentiality of any information participants shared, Ms Linhart also highlighted at the beginning of her interviews that she was a foreigner with no family or long-term ties in Tonga. At the beginning of the study, the Tongan members of the research team described Tonga as a small country where church, extended family and community connections are extensive, and highlighted that 'most people know someone that you know'. The research team were aware that this may be a barrier to the depth of detail participants were willing to share about their experiences, particularly in the Tongan context where there are significant legal, cultural and religious implications to topics raised in the interviews. It is possible that being alone with Ms Linhart and her greater level of perceived anonymity compared to the Tongan interviewers facilitated a greater depth of sharing of intimate details of participants' experiences. It may also be that the young participants were more circumspect in regard to what they would share with an older interviewer compared to a younger interviewer, or vice versa. The age of the Tongan interviewers ranged from early 20s to over 50, but there was no noticeable difference in the type or detail of the information given to the Tongan interviewers.

The main role of focus groups in this study was to scope older women's views towards adolescent unplanned pregnancy and traditional practices of fertility limitation, in order to signal the issues that should be pursued in private interviews, as well as providing a useful means of identifying, recruiting and gaining introduction to – and gauging the interest of – potential interviewees. In Tonga only one focus group discussion was held with three participants, as the majority of older women approached to participate in a focus group discussion said they preferred to be interviewed individually.

Given the cultural and religious social conventions in Tonga which limit the willingness of both younger and older women to talk openly about sexual and reproductive health, contraception and fertility limitation, it was not unexpected that the older participants requested to be interviewed individually.

5 Conclusions

5.1 Adolescent unplanned pregnancy in Tonga

Sexual and reproductive health knowledge among the young participants in this study was low. All participants stated that their pregnancy was unexpected and that the first physical symptoms came as a surprise. For some, this can be attributed to avoidance and denial, but others were genuinely surprised. Most of the young participants knew that they could become pregnant from having unprotected sex, but for some reason they did not think they would become pregnant when they were having unprotected sex with the father of their baby. Sources of reliable information about sexual and reproductive health were limited, with many participants stating that the only things they knew about these topics were what they had seen on Facebook, on YouTube and in movies. No participants reported receiving sex education from parents or senior family members, nor was there any mention of sex education or formalised discussion about sex at school – apart from abstinence until marriage. The coverage of sexual and reproductive health education and access to contraception through NGO programs appeared to be patchy and was compromised by participants' fears around confidentiality from the NGO staff if they self-selected to attend sexual health education sessions or tried to access contraception. Participants also demonstrated low levels of knowledge and understanding of contraception. Condoms were the only contraceptive method that most of the young participants were aware of prior to their pregnancy. Studies have long shown that early adolescent fertility in particular is associated with low levels of sexual, reproductive and contraceptive knowledge (see, for example, Okonofua, 1995). While not particularly surprising or novel, the recurrence of these findings here indicates that although these factors are well known, efforts to date have not managed to effect significant change in many parts of the Pacific.

As condoms offer protection from HIV and some sexually transmitted infections, they have been the most widely promoted form of contraception to young people in the Pacific. Literature on condom use among young people in Pacific settings highlights not only barriers to accessing condoms, but also the strong social, cultural and religious barriers, including stigma (McMillan & Worth, 2011). In this study, the young participants also noted difficulties around sustaining condom use in an ongoing relationship, due to a lack of autonomy in negotiating the use of contraception with their male partner. This highlights the importance of understanding the way that sexual relationships are defined among young people in Tonga and the power relationships within them. Much has been reported in international literature over the years on the manner in which adolescents determine condom use within heterosexual relationship. Most of the research has underscored two dyadic factors associated with condom use: firstly, power dynamics between partners, whereby the partner with more relational power is more likely to enact their desire to, or not to, use a condom (Li & Samp, 2019; Woolf & Maisto, 2008; Tschann, Adler, Millstein, Gurvey, & Ellen, 2002); and secondly, safer sexual communication, whereby communication between partners about condom use is the single most important predictor of condom use (Li & Samp, 2019; Noar, Carlyle, & Cole, 2006; Sheeran, Abraham, & Orbell, 1999). The findings from this study show that increased access to condoms may have limited benefit in reducing adolescent unplanned pregnancy in Tonga unless gender equality and harmful gendered power dynamics are also addressed, in order to give adolescent girls the

confidence and ability to communicate and negotiate their desire for condom use with their sexual partners. This is consistent with the findings of McMillan and Worth (2011), who highlighted that in Tonga 'individual-level approaches to improving rates of condom use will be inadequate unless they are informed by an understanding of the role of identity, culture and tradition in young people's decisions around condom use' (p. 313). Other methods of contraception do not preclude condom use, such as long-acting reversible contraception, and may give more control to girls. Given the older age of many of the participants' sexual partners, more detailed investigation into the ways that young people embark on and establish sexual relationships may also be helpful.

A few participants mentioned that during their pregnancy they learned about, and were offered, a contraceptive implant by health staff (for insertion after their baby was born). Several participants were now using this method for long-term reversible contraception. No participants mentioned the emergency contraceptive pill. When it was described to several participants, they responded that they had never heard of it. As all participants in this study were in some type of ongoing relationship and having unprotected sex on numerous occasions when they became pregnant, knowledge about, or access to, the emergency contraceptive pill may not necessarily have been helpful.

While the findings from this study show that there are adolescent girls in Tonga who are engaging in sexual relationships with limited or no access to sexual and reproductive education or contraception, there is likely to be community resistance to the provision of contraceptive access and sexual and reproductive education to girls during adolescence. Sex is not a topic that is easily discussed in Tonga because of cultural and religious restrictions (WCCC, 2017) and previous research has highlighted the influence that social authorities and adults exert on young people's condom use in Tonga (McMillan & Worth, 2011). Sexual and reproductive health and contraceptive education for young girls may be more acceptable if it is delivered to both older women and girls together, and in a forum that enables the older women to take some ownership of the process. The hosting of small mother-and-daughter group meetings or workshops may improve, and begin to normalise, dialogue between mothers and their daughters on matters of sex, gender and relationships. Improved dialogue prior to a girl's pregnancy is desirable. This study found that while mothers played a key role in instigating the first prenatal health facility visit once they discovered their daughter's pregnancy, prior to the pregnancy mothers played no role in sex education. In addition, fear of parental anger resulted in participants hiding their pregnancy and delaying prenatal care. The facilitation of such discussion may also increase the confidence of both younger and older women to raise or address these issues in other interpersonal or family situations and in wider community fora.

All our young participants expressed that they were scared to tell their parents that they were pregnant, and most lied when questioned by their parents about possible pregnancy. Several participants expressed that their fear was even greater because their parents were figureheads in their church. In most situations, the parents' initial reaction to learning of their daughter's pregnancy was anger, disappointment and hurt. However, the parents' anger and disappointment changed to love and support in most cases. This is consistent with previous findings in Pacific Island populations where experiences of guilt and fear during adolescent pregnancy are common, but family members are generally accepting once the baby is born (White, Mann, & Larkin, 2018). In this study, once born the baby was commonly valued and loved in the family.

Even though, with time, most of the young participants were given love and support from their parents, their fear while they were pregnant was significant and led the young participants to hide their pregnancy for as long as possible. Most did not confirm their pregnancy or have any interaction with a health service until they were five or six months pregnant, sometimes even later. In outer island areas, fear of parents as a barrier to accessing prenatal care was further exacerbated because access to a boat, and the cost of fuel, limited the young participants' ability to independently travel to a health facility on a main island. In addition, pregnant adolescents who are unfamiliar with the nearest health facility on the main island, or the town in which it is located, may lack the confidence or necessary information to seek assistance there even if they were able to overcome the transport barriers.

For the young participants who did live on main islands in close proximity to health facilities and NGOs offering reproductive health services, familiarity with these services often became an actual barrier to accessing them due to fears about a lack of confidentiality among the staff. Confidentiality becomes especially difficult to maintain when family and service provider roles overlap. This was particularly a concern for the young participants from Vava'u and Ha'apai, due to the smaller population size and the increased likelihood of familiarity with NGO and health service staff. However, confidentiality was an issue that participants from Tongatapu also mentioned.

In Tonga, the age of consent (when an individual is considered legally old enough to consent to participation in sexual activity) is 16 years for both men and women. Statutory rape law is violated when an individual has consensual sexual contact with a person under age 16. Because Tonga does not have a 'close-in-age' exemption, it is possible for two individuals, both under the age of 16, who willingly engage in intercourse to both be prosecuted for statutory rape, although this is rare. Similarly, no protections are reserved for sexual relations in which one participant is a 15-year-old and the second is a 16- or 17-year-old. One of the young participants in this study was 15 years old when she became pregnant with a man two years older than her. Because this study focused on how the girls themselves explained their situation and experience, no follow-up questions were asked about any legal action against the father of the baby. However, the participant's own subjective understanding and framing of her relationship with her baby's father indicated that she perceived that she had been in a consenting sexual relationship – even though legal consent was not possible, given her age. While many of the other participants outlined that the father of their baby was several years older than they were (often aged in their early to mid-20s), these participants were all aged 16 years or older at the time of their sexual interactions. No participants in this study said they were pregnant as a result of rape, coerced sex or violence. It is possible that those most traumatising conditions of conception are also the most secret, and that this study was unable to capture the most covert and successfully hidden adolescent unplanned pregnancies. Statistics from the Women & Children Crisis Center (WCCC) in Tonga state that between 2010 and 2016, more than 2,000 cases of domestic violence, sexual violence and child abuse were reported and referred to the Center. Statistics for 2016 included 334 cases of domestic violence; one case of rape; one case of sexual harassment; and 46 cases of child abuse. This totals to 382 cases in 2016, similar to the 354 cases in 2010, with annual fluctuations over the seven-year period (WCCC, 2016). It is evident that violence against women and children in Tonga remains a critical issue, particularly considering that the cases that present to the WCCC in Tonga do not represent the full scale of the issue.

Most of the young participants in this study had heard of ways to abort a pregnancy, but few were sure of exactly what to do. Some of the methods to try to abort or 'drop the baby' were very dangerous and posed serious risks to the foetus, as well as the pregnant woman. No participants reported problems as a result. However, it is possible that harms may emerge later. Several participants outlined harms that they had heard happened to other girls who had attempted abortion. The most commonly mentioned method was medicines or pills. However, only one participant could describe in any detail what these were or where they could be accessed. This participant had been forced to swallow an overdose of paracetamol tablets by her father to try and induce an abortion. The other most commonly mentioned method was drinking 'blue bleach'. None of the young participants said that they had used the blue bleach, but they mentioned other girls they knew who had done so. It was also mentioned that the blue bleach was very dangerous and was no longer available in the supermarket. Jumping from high places, carrying heavy loads, having sex while pregnant – in one case, specifically not with the father of the baby – and drinking strong tea were methods of abortion mentioned by participants.

All of the young participants were asked if they knew any traditional methods of fertility limitation. Only one participant was able to respond to this question and outlined that she had heard that the leaves of the *pua-tonga* plant were smashed into a liquid and drunk to induce an abortion, although she highlighted that she had not tried this method herself. Several sources confirm that *pua-tonga* is the Tongan name for the flowering plant *Fagraea berteriana* A. Gray (Cambie & Brewis 1997; Motley 2004). Literature on the use of *pua-tonga* as an abortifacient however is conflicting, and there is an absence of literature on the effectiveness of any abortifacient properties. In their book *Anti-fertility plants of the Pacific*, Cambie and Brewis (1997) list *pua-tonga* as an anti-fertility plant in Tonga, but do not outline how the plant is used, or specific anti-fertility outcomes in the Tongan context. They do cite Briggs (1985), who states that in Futuna the plant is used as an abortifacient by ingesting a decoction of blended scrapings from the bark of the tree, mixed with the bark of two trees in the coffee family (*Morinda citrifolia* L. and *Neonauclea forsteri* Merrill). In contrast, Whistler (1990) recorded that in Tonga an infusion of the bark of the *pua-tonga* plant is drunk for relief from improperly healed broken bones and internal injuries. Motley (2004) states that 'No recorded poisonings have been attributed to the consumption of *Fagraea* fruits or decoctions made from the plant parts' (p. 402) but highlights that by no means does this verify that unrecorded deaths have not occurred from improper consumption. A study by Ciganda and Laborde (2004) of the toxic effects of commonly used plant infusions for induced abortion in Uruguay, although not the same as the plants outlined in this study, identified cases of significant morbidity and mortality following their ingestion. Further focused research would be required to better understand the role and outcomes (effective or otherwise) of the *pua-tonga* plant in the limitation of fertility in contemporary Tonga. Although, as this traditional method was not commonly considered or used by the young participants in this study, particularly compared with the more contemporary methods of abortion they outlined, the value of further research may be limited.

Our older participants were familiar with all of the traditional and non-traditional methods of abortion outlined by our younger participants, but also mentioned two additional methods: a grass called *matamanu* that could be inserted into the vagina to pierce the placental sac, and the *si* plant, from which the young leaves are inserted into the vagina. Cambie and Brewis (1997) outline that the *si* plant is the Tongan name for the flowering plant *Cordyline terminalis* (L.) Kunth.

Literature on the *matamanu* grass made no mention of its role as an abortifacient. This is likely because participants described it as an instrument or a tool to induce an abortion by physically piercing the placental sac, rather than a traditional method that relied on the chemical properties of the plant. In contrast, there was a lot of literature noting that the *si* plant was used as an abortifacient, although none of the literature confirmed the effectiveness of any abortifacient properties. The use of the plants leaves to abort a pregnancy has been noted in New Caledonia (Rageau, 1957), Vanuatu (Baker, 1928), Fiji (Seemann, 1862) and Hawaii (Gutmanis, 1979), but no literature outlined details of the plant's use in the Tongan context. While participants in this study described that its use as an abortifacient required insertion of the plant's young leaves into the vagina, other sources outlined that an infusion made from the leaves of the plant needed to be drunk (Blyth, 1887; Gutmanis, 1979). Barnes, Price and Hughes (1975) were unable to show any significant anti-fertility effects of the *si* plant when solvent extracts of the leaves were fed to rats. Further focused research is required to better understand the role and outcomes (effective or otherwise) of the *si* plant in the limitation of fertility in contemporary Tonga, although the value of this may be limited as none of the young participants in this study mentioned the *si* plant.

Recent global evidence continues to show that abortions occur as frequently in countries which have the most restrictive abortion legislation (banned outright or allowed only to save the woman's life) as they do in countries with the least-restrictive abortion legislation (allowed without restriction) (Singh et al. 2018). The critical difference is that the more restrictive the legal setting, the higher the proportion of abortions being undertaken using unsafe methods (Singh et al. 2018);[9] with unsafe abortion a leading cause of maternal deaths globally (OECD, 2018). In order to safeguard the health, wellbeing and rights of women and girls who face unwanted pregnancy in Tonga there is a need for legislative change that would make safe low-cost abortion (both pharmaceutical and surgical) available to women and girls. Current legislation in Tonga, the Criminal Offences Act 2016 revision (MoJ, 2016), states that a woman or girl shall be liable to imprisonment for any period not exceeding three years if she procures the means to administer to herself, or allows someone else to administer to her, drugs, noxious things or an instrument to cause a miscarriage. If another person supplies the woman with the means to cause a miscarriage, they shall be liable to imprisonment for any period not exceeding 4 years; and if another person administers the means to cause a miscarriage to a woman or girl, they shall be liable to imprisonment for any period not exceeding seven years [MoJ, 2016]. While it is highly improbable that the legislation banning abortion in Tonga will be repealed in the short term, there are readily available online resources through organisations such as the International Planned Parenthood Federation (IPPF)[10] that could be used in the short term to increase community support and political will for legislation repeal by facilitating evidence-based conversations in the community around what abortion is, and the detrimental consequences of unsafe abortion practices. These resources include written guides and short educational videos, such as *How to talk about abortion: A rights-based messaging guide (IPPF, 2018), How to educate about abortion: A guide for peer educators, teachers and trainers* (IPPF, 2016), and *Youth and abortion: Key strategies and promising practices for increasing young women's access to abortion services* (IPPF, 2014).

In the Pacific, there is no official data on the scale of, or the harms caused by, unsafe abortion practices. Advocacy is difficult in

9 An 'unsafe method' of abortion is one that does not use a recommended method and is not undertaken by a trained provider.

10 The Tonga Family Health Association is the national member association for the IPPF in Tonga.

this context and there appears to be a lack of political will to acknowledge or address unsafe abortions. Some data on mortality and morbidity rates attached to abortion attempts in Tonga might be collected from medical records of presentations for medical care as a result of complications from miscarriage. However, data from this study suggests that many young women and girls will not present at a hospital following self-induced miscarriage and that hospital data is likely to significantly underestimate the scale of clandestine abortions.

Adoption was a frequently discussed topic among many of the young mothers. Some of the young participants had given their baby for adoption to a family member, usually a cousin. Their main motivation for giving their baby for adoption was to be able to go back to school and complete their studies, but several also mentioned that it was the best way for a better life for their baby. In some circumstances, there was no explicit mention of adoption, but the young participants explained that their parents and relatives were looking after their baby so they could return to school. The current education regulation in Tonga, the *Education (schools and general provisions) Regulations 2002* (Ministry of Education, 2002), does not make any specific provisions for the inclusion or exclusion of students who are pregnant. The findings from this study indicate that the school environment in Tonga was not a place our young participants felt comfortable to continue their studies after their pregnancy was visibly noticeable to others, mainly due to perceived stigma and shame. Whilst most of the young participants who left school during their pregnancy expressed a strong desire to return to studies as soon as they were able after the birth of their baby, none of the participants tried to remain in school during the middle or late stages of their pregnancy. Although there is no explicit exclusionary policy in the national education regulations regarding pregnant students, the current schooling system does not appear to be a particularly supportive environment during pregnancy. Even in countries with explicit legislation that supports the retention of students during pregnancy and motherhood, significant incongruities have been identified between policy intentions to provide a supportive environment for pregnant and parenting learners, and the young woman's lived experience, due to conservative interpretations of policy, and negative and moralistic responses from teachers and peers (Pillow, 2006; Gender Research and Advocacy Project, 2008; Ngabaza & Shefer, 2013). Teachers have themselves highlighted that their ability to provide a supportive environment within their classroom is compromised by their own attitudes, lack of skills and clear enough guidance on how to do so (Bhana, Morrell, Shefer, & Ngabaza, 2010). Current literature highlights that in addition to overarching legislation to support pregnant and parenting learners, it is equally as imperative that education policies include explicit clarity regarding day-to-day support and management of pregnant and parenting learners, including support and training for teachers (Morrell, Bhana & Shefer, 2012; Govender, 2012).

Most of our young participants described that the main support they received in being a mother came from their family. Despite early anger and disappointment from family members, most of the young participants and their babies were still living with their parents or close relatives. Both the young mother and the child were usually being financially supported by their family. Many of the young participants spoke about regret for disobeying their parents and acknowledged that they had caused a lot of disappointment by compromising their parents' schooling and career aspirations for them. A lot of our young participants described that when they gave birth and saw their baby, they had an overwhelming sense of purpose, meaning and love in their life as a mother. However, this did not change their aspirations, expressed by almost all of the young participants, to undertake more studies and get a job.

5.2 Regional themes

The research in Tonga was conducted as part of a larger study called Adolescent Unplanned Pregnancy in the Pacific, which also collected data in Chuuk State and Vanuatu. Due to the diversity of the social, cultural, economic and political contexts that constitute key differences that cannot be adequately measured in this study, we do not attempt any comparisons between the country findings. We have, however, identified some of the shared themes and issues that emerged from the wider set of data. While we point to common threads, the findings highlight the distinctiveness of each country context and the importance of attention to local specificity in attempts to address issues raised.

The need to make sexual and reproductive health services and related resources and information more accessible to adolescent girls, including through improvement of the provision of non-judgemental and confidential service delivery, was common in all three countries. A lack of skills – particularly counselling skills – among service providers was a significant barrier to young people's access to sexual and reproductive health services in Vanuatu (Kennedy et al., 2013a). To varying degrees, the issue of service confidentiality arose in all three countries. In studies undertaken across the Pacific region, concerns about systematic violations of confidentiality, and a variety of reasons for this, have been raised (see Butt, 2011). Studies have also repeatedly identified the lack of confidentiality as a deterrent to sexual and reproductive health service uptake (Jenkins & Buchanan-Aruwafu, 2006; McMillan, 2008; Kennedy et al., 2013a; O'Connor, 2018).

Data in these reports also highlighted the need to improve access to reliable sources of reproductive and sexual health information for adolescent girls in all three countries. The data also indicated that different means of providing information are indicated at each site. For example, the research found that social media was used heavily by the Tongan interviewees. The reliance of young Tongan participants on social media, as well as the manner in which it was integrated into their daily lives, highlights its potential as a platform from which to make locally specific and reliable reproductive health, sexuality and service provider information available to Tongan girls. However, while social media was used in Vanuatu, it was not accessed to the same extent as in Tonga. In Vanuatu, internet and talk time on mobile and other devices was limited due to cost. The participants in Chuuk accessed internet services less frequently and often could not even be contacted by text. Therefore, it would be a mistake to overemphasise the importance and potential of social-media-based resources for those areas.

In Tonga, many of the young participants had met the father of their baby through social media platforms such as Facebook. The ways that young people embark upon, and establish, sexual relationships appeared to be quite different in the three study countries, with young Tongans connecting in virtual space; young Ni-Vanuatu meeting partners through regular activities, such as work or travel (for example, on the bus or walking); and young Chuukese appearing particularly vulnerable when staying home alone.

The age at which a woman can legally consent to sex with a male is 16 years in Tonga (UNESCO, 2013), 15 years in Vanuatu (UNESCO, 2013), and 18 years in Chuuk (UNHRC, 2015). This study suggests that in all three countries, it is not uncommon for girls to become pregnant prior to the legal age of consent. Although the interviewees themselves understood their relationships as being consensual, this indicates a need for improved understanding of the dynamics of, and motivations for, relationships between adolescent girls and older males in the Pacific.

Babies are highly valued in all three societies and motherhood may offer girls not only a respected social role, but also validation as an adult woman. Other Pacific research has shown that having a baby means leaving the group of girls and joining the adult women (Salomon, 2002). Issues of feminine identity are deeply imbricated in discourses around motherhood among all societies and may be particularly so in Pacific societies. White and colleagues contended that motherhood is central to feminine identity and culturally signals becoming a woman in the Pacific (White, Mann, & Larkan, 2018). Salomon (2002) used the term 'obligatory motherhood' to describe how motherhood in Kanak societies is women's preeminent role. Pacific women's organisations have sought to challenge restrictive notions of Pacific motherhood in their advocacy work by drawing attention to the diverse and changing ideals of women as mothers (George, 2010).

Education appears to be deeply implicated in feminine aspirations and ideals. Gendered access to, and average standards of, education differ between Pacific countries (Clarke & Azzopardi, 2019) for a range of historical reasons. In this study, the findings from Tonga suggested a relationship between high general standards of education and girls' expectations of their own lives: the distinctiveness of the Tongan girls' aspirational narratives suggests that raising the educational level of all girls works to expand and raise girls' expectations of self-determination, as well as of attaining good employment, and of continuing to train and study despite pregnancy and young motherhood.

The participants' narratives show that traditional gender roles are implicated in experiences of unplanned pregnancy in a wide variety of ways. Attention to expectations and norms around adolescent sexual relationships and the resultant impact on adolescent girls will also require attention to young men and to dominant notions of masculinity (Ricardo, Barker, Pulerwitz, & Rocha, 2006).

While there are some cross-cutting issues, such as a lack of access to sexual and reproductive health information, there is no one strategy (such as the use of social media) that will be best for all Pacific Island countries. We have outlined and discussed in detail the most relevant factors for each country included in this study in each of the country-specific reports. Programs and responses must be context specific, and must take into account the often uneven distribution of resources across the region, as well as within countries, if they are to be acceptable and effective.

6 Recommendations

The recommendations are aimed at policymakers and government ministries with portfolios that include health, education, women's affairs, youth and child welfare, social services and justice; civil society organisations working in the areas of women and children's wellbeing, family and child welfare, gender equality, youth, and sexual and reproductive health; donors; and regional organisations – all of which have a role to play in improving young women's and girls' agency in relation to sexual and reproductive health.

- **Facilitate discussions between younger and older women about sexual and reproductive health and gender equality.** Young girls had limited knowledge of sexual and reproductive health and contraception prior to pregnancy. There is likely to be community resistance, however, to the formalised provision of increased sexual and reproductive health education and contraceptive access to girls during adolescence in Tonga. A more acceptable method in the short term may be the delivery of this information to both older women and girls together, and in a forum that enables the older women to take some ownership of the process. The hosting of small mother-and-daughter group meetings or workshops may improve, and begin to normalise, dialogue between mothers and their daughters on matters of sex, gender and relationships. The facilitation of such discussion may also increase the confidence of both younger and older women to raise or address these issues in other interpersonal or family situations and in wider community fora.

- **Strengthen sexual and reproductive health education in schools.** Sexual and reproductive health education appears to be currently non-existent or very minimal in schools, beyond teaching abstinence until marriage. Sexual and reproductive health education in schools should be reviewed and strengthened with the aim of ensuring that these topics are covered adequately in the curriculum and taught in class. Extensive consultation will be required with the Ministry of Education and Training, teaching staff and the broader school community to promote the importance and benefits of sexual and reproductive health education in schools and gain support before any new curriculum is introduced. Teachers are likely to require training in how to teach such topics, which are traditionally considered taboo. Alternatively, it may be preferable for external experts to deliver programs in schools.

- **Utilise social media platforms such as Facebook and websites to provide anonymous and timely sexual and reproductive health education and support to young people.** Social media was popular among the young Tongans in this study. Many relied on the internet for sexual and reproductive health information. Reliable and Tongan-specific content made available through the internet would offer a confidential way to provide accurate, evidence-based, accessible and timely information about sexuality, reproduction, relationships and parenting, as well as 'where to go' guides for care and support.

- **Strengthened community programs designed for adolescent girls and boys to promote understanding of gender equality and challenge harmful gender dynamics.** Adolescent girls in Tonga frequently lack autonomy in negotiating the use of contraception with their partner. The findings from this study show that increased access to condoms, without also addressing gender equality and harmful gender dynamics, will likely have limited benefit in reducing adolescent unplanned pregnancy in Tonga. Several

organisations have run programs which aim to promote gender equality and challenge harmful gender dynamics. They include the Women & Children Crisis Center, the Talitha Project and the Tonga Family Health Association. Programs have included male advocacy training on ending all forms of violence against women and girls, gender equality and women's human rights, implemented by the Women & Children Crisis Center. Another program, My Body! My Rights!, which is implemented by the Talitha Project, aims to support adolescent girls in gaining increased awareness, rights and control over their bodies and their lives, and becoming empowered leaders in their families and communities. Funding should be allocated to ensure the consistent and continual development and delivery of these programs, in addition to ensuring that they are appropriately evaluated, including process, impact and outcome evaluation.

- **Strengthen the availability and accessibility of contraceptives to adolescents, including evidence-based and accurate information on its use and side effects.** A range of contraceptive options should be made available without judgement to young people through a variety of accessible and confidential sources. As adolescent girls in Tonga frequently lack autonomy in negotiating the use of contraception with their partner, methods that give more control to girls should be equally prioritised, particularly long-acting reversible contraceptives and the emergency contraceptive pill.

- **Strengthened healthcare worker training on the importance of providing non-judgemental and confidential sexual and reproductive health services and commodities to adolescents.** Fear of judgement and lack of confidentiality are major access barriers to sexual and reproductive health services and commodities, especially for girls. Pregnant adolescents require confidential and supportive services in order to access contraceptive information, confirm a suspected pregnancy, and access support regarding decision-making. Healthcare workers require strengthened training around the importance of confidentiality and impartiality in delivering adolescent sexual and reproductive health and wellbeing services, and sensitisation to the vulnerabilities of adolescent mothers.

- **Mentoring for young mothers and support groups.** Young mothers may feel isolated from friends and social activities when they have a baby. Support groups or mothers' groups were not mentioned by any of our young participants. Young mother mentoring programs and support groups provide young mothers with practical, emotional and social support to navigate motherhood and feel a greater sense of belonging and acceptance. These groups can also be used as a way for young mothers to be educated and reminded about the best ways to look after their baby, including the importance and timeliness of accessing different vaccinations and postnatal check-ups.

- **Support young mothers to complete their education and gain employment.** Many of the young mothers in this study left high school as soon as they were visibly pregnant due to a fear of stigma and shame. In some cases, the young participants' parents encouraged or instructed them to leave school in order to reduce the shame they believed the pregnancy would also bring upon the family. Increased dialogue in interpersonal or family situations and in wider community fora around sex, gender and relationships may help to reduce the stigma around adolescent pregnancy. Teachers also need to be educated about how to create supportive environments in their classrooms that encourage pregnant adolescents to

continue their studies for as long as possible while pregnant, particularly if they can complete their current year of study or graduate before they deliver their baby. This would help mothers to more easily return to finish their high-school studies, undertake graduate studies, and seek employment and a career. The current education regulation in Tonga does not make any specific provisions for the inclusion or exclusion of students who are pregnant or parenting. Regulation amendment to include a provision which explicitly outlines the inclusion of pregnant and parenting students is recommended, in conjunction with updated education policies which outline the day-to-day support and management of pregnant and parenting learners in the school system, and support and training for teachers.

- **Strengthened gender-based violence prevention and response programs.** Gender-based violence prevention and response programs should be implemented to protect young pregnant adolescent mothers who may be at risk of gender-based violence from a male relative or partner. This includes the provision of safe houses that support women, including young mothers and their children.

- **Advocacy for abortion legislation review and repeal.** The study found that adolescent girls are engaging in unsafe abortion practices. Advocacy for abortion legislation review based on existing research and unsafe abortion cases presenting at health centres is required to repeal abortion laws that endanger women's health and wellbeing

- **Strengthened engagement with organisations and key members of the community that have been advocating for strengthened sexual and reproductive health education and/or gender equality, access to contraception, abortion legislation review and repeal, and ratification of the Convention on the Elimination of all Forms of Discrimination against Women.** There are organisations and key people in the community that have continued to advocate for these matters over many years. These include the Women & Children Crisis Center in Tonga, the Talitha Project and the Tonga Family Health Association.

- **Ratification of the Convention on the Elimination of all Forms of Discrimination against Women.**

- **Further research as indicated by the data.** The findings of this study indicate a need for further research in a number of areas, including: investigation into the ways that adolescent girls in the Pacific embark on and establish sexual relationships, including gender power dynamics and communication in the negotiation of contraception use; and documentation of abortion complications (including morbidity and mortality data from hospitals).

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