I know what I need – Thank you for asking: A model of young women's co-creation for internet based SRH promotion

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Abstract

This project, titled "*I know what I need – Thank you for asking*", aimed to address the sexual and reproductive health needs of young women diaspora from the Indian subcontinent in Aotearoa New Zealand, by providing an innovative space to co-create internet-based sexual and reproductive health (SRH) promotion consisting of information and advice. It was relevant due to the large number of young women from the Indian subcontinent migrating to New Zealand for work and family reasons, which reflects a global trend. These young women may be caught within the paradox of experiencing two contrasting cultures: a more sexually open society in New Zealand and a culturally driven sexually restrictive society in their home countries. Experiencing such a paradox can make it challenging for young women diaspora from the Indian subcontinent without appropriate support systems.

Traditional health education consists of brochures and pamphlets. While they have served as excellent tools for the dissemination of health infomation, the internet now presents more opportunities. Internet-based tools such as social media platforms (i.e., YouTube and Instagram) are free to use and, therefore, hold significant potential in the future of health promotion. These tools also allow information to be broadcast in real-time and can reach wider populations within a short span. Additionally, large audiences follow many "Influencers" and "YouTubers" as they relate to them and present an excellent opportunity for health promotion. Perhaps most exciting of all, they offer opportunities for users or consumers to become producers in a prosumer revolution.

Feminism was chosen as the theoretical perspective as young women from the Indian subcontinent have traditionally lacked a voice. Furthermore, feminism, as a type of change-oriented critical theory, aims to result in social change. Being a young Indian woman myself, and having experienced a lack of voice, I wanted to conduct research so that young women, like me, could express their needs. The project utilised co-creation to develop SRH promotion ideas and tools as a group of young women. The research team consisted of myself, as a primary researcher from the community; and 5 participants (co-researchers) who were young women diaspora from the Indian Subcontinent residing in New Zealand. I decided to use Participatory Action Research (PAR) processes for the co-creation of internet-based SRH promotion ideas and tools. Co-creation focus groups were employed for data generation. Co-creation models can be influential as they are created with the active participation of the community. Therefore, they are more acceptable to them, and the project would have a more significant impact.

The findings indicated that young women experienced a lack of sexual health discourse in their life journeys. This finding was not unexpected as young women from the Indian subcontinent lack access to sex education and other forms of SRH promotion. Discomfort in talking about sex can also lead to a significant lack of informed decision making regarding SRH. The analysis highlighted the scope to improve reproductive health outcomes through increased knowledge about the changes occurring in the reproductive system, an awareness of reproductive services available, and the means to access them.

Furthermore, the findings revealed that young women desire more control through informed decision making and the gain of sexual rights. The internet has supported young women to gain access to such powers. Therefore, an internet-based tool could be beneficial to improve SRH outcomes for the community. Additionally, the findings suggested that the young women co-researchers felt empowered through participation in the project. Co-creation projects can lead to the empowerment of participants resulting in social change.

The outcome of this project was the development by the primary researcher of an SRH promotion framework that could support and inform similar co-creation projects in the future. The framework was based on the data gathered in the field work, the reflections of the research team, and my experience as a public health practitioner. Such a framework could be beneficial in the planning of future health promotion, policies, and practices.

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List of abbreviations:

SRH – Sexual and Reproductive Health

PLHIV – People Living with HIV

STI – Sexually Transmitted Infections

WHO – World Health Organization

PAR – Participatory Action Research

IoT – Internet-of-Things

FGD – Focus Group Discussion

AEP – Adolescence Education Programme

FPAR- Feminist Participatory Action Research

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Darinka Sousa

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Ethics approval

Ethics approval was received from the Auckland University of Technology Ethics Committee (AUTEC) on 2 September 2019 (reference number #19/235).

Chapter 1: The problem – Defining the issue

1.1 Researcher's voice

Growing up in India, where sex education is frowned upon, my relationship with sexual and reproductive health has involved much self-learning. Sex education, if conducted, would be in whispers, separating the girls from the boys, or not held at all. Most parents chose not to have these conversations with their children, and any queries were closed immediately.

Having arrived as an immigrant to New Zealand five years ago, I did not grasp the cultural differences around sexual and reproductive health until I was pregnant with my first child. It made me ponder on my own choices and decisions regarding the subject. I came from Goa, a place in India that was very European in its ways. It had been a Portuguese colony for over 450 years. I, therefore, expected that I would seamlessly blend into the Kiwi culture. While language was not a barrier, I found myself unaware of the services available or challenged to find a midwife that understood my cultural beliefs.

Additionally, my previous medical training as a homoeopathic physician and clinical experience in the subcontinent made me aware of the significant lack of knowledge about sexual and reproductive health (SRH) information and advocacy in the community. While I communicated my knowledge, I realised that I could only support those who entered my clinic. I also recognised that it was unusual for a young woman from the Indian subcontinent to speak freely on taboo issues such as SRH. However, I realised that young women were interested in talking about sexual health and improving their SRH outcomes, alongside other women from the community if

provided the right opportunity. Therefore, I decided to conduct a research study to contribute to the broader community.

1.2. What is Sexual and Reproductive Health?

Sexual health is considered the state of complete wellbeing regarding sexuality and the ability to have pleasurable, safe, and positive sexual relationships (Cacciatore et al., 2019). It includes feeling respected in one's approach to sexuality. Additionally, the World Health Organization (WHO) considers reproductive health part of the broader definition of health and wellbeing. It also suggests that every person must enjoy a safe sexual life and make a prudent decision regarding parenthood (Warzecha et al., 2019). While independent, sexual and reproductive health are interlinked and impact each other (Otu et al., 2021). For instance, the choice of contraception can lead to an increase or decrease in pleasure during sexual intercourse.

Furthermore, the state of a woman's SRH can significantly impact her overall health outcomes. A woman has different sexual and reproductive needs at varying stages in her life. These include menstruation, contraception, fertility, pregnancy, and menopause (Marieb, 2015). She could also have issues that correspond to these stages or health conditions, such as endometriosis or uterine fibroids (Craft et al., 2018). Safe sex practices are crucial for maintaining good reproductive health. To do so, women must have access to accurate and up-to-date information about the various screening and medical facilities available to them. These include pap smears, vaccinations, and testing for sexually transmitted infections (STIs) (Better Health Channel, n.d.; Craft et al., 2018).

There is also growing emphasis on sexual rights, including a person's ability to express sexual desire (Ford et al., 2019). The understanding of sexual health has developed significantly since the WHO first began recognising sexual health as an essential aspect of health and wellbeing. Moreover, there is a need to emphasise sexual pleasure in health promotion while avoiding a significant emphasis on dangers associated with sexual behaviour (Ford et al., 2019). Furthermore, experiencing sexual pleasure fulfils sexual rights (Gruskin et al., 2019).

1.3. Why is SRH promotion important for young women?

Sexual and reproductive health promotion empowers a young woman with the tools to prevent pregnancies, prevent STIs, enjoy satisfying relationships, as well as make informed decisions about her sexuality and sexual relationships (Clark et al., 2016). Different stages in a woman's life necessitate different health promotion strategies. For instance, at menarche, the needs are centred around the right to receive sound knowledge of the changes occurring in her body to deal with this significant life change (Sommer et al., 2015). The information must be unbiased, scientific, and free from superstition and colloquial beliefs (Chandra-Mouli & Patel, 2017). Furthermore, sex education at menarche will empower young girls to engage in sound conversations on SRH issues (Sommer et al., 2015).

However, SRH has been considered a taboo conversation in many communities. On occasion, a couple could spend a lifetime together without speaking on these matters. As societies modernise, one would expect to break the shackles of tradition. However, current evidence indicates that sexual health has remained a taboo conversation due to cultural and societal norms (Askew, 2007; Beck et al., 2005; Chakraborty &

Thakurata, 2013; Latifnejad Roudsari et al., 2013; Metusela et al., 2017). Additionally, most women will never discuss their sexual desires or menstruation with other women (Bhatt, 2018).

Currently, in traditional societies, such as those from the Indian subcontinent, SRH needs are masked by religious and cultural practices. This aspect can have a significant impact on the SRH of a woman. For instance, cultural traditions of 'coming-of-age' ceremonies can impact a young girl's care at menarche and her attitude towards menstruation (Chandra-Mouli & Patel, 2017).

Traditionally, women from the Indian subcontinent migrated only through marriage, and it was uncommon for young women to relocate themselves. However, the 1970s saw many young women from Kerala, India migrating to work in newly built hospitals in the Gulf countries. Now, increasingly, families encourage young women to migrate to increase social mobility (Percot, 2006). Additionally, women are increasingly migrating to escape the traditional societal structures, which they could perceive as restrictive. Furthermore, increased education levels among women in India has resulted from women challenging conventional practices in Indian society (Radhakrishnan, 2009)

1.4. How is the internet shaping health promotion?

Typically, SRH policy and practice associated with the provision of information and advice has been disseminated through the means of brochures, clinics, and direct face to face communication (Barik et al., 2019). In a digital society, new and significant ways emerge that go beyond these methods to virtual forms of communication (Korda

& Itani, 2011). These include social media platforms or streaming sites such as YouTube. Given the wide availability of connectivity and knowledge, there is significant scope to move beyond material created by non-government or government agencies to access and share SRH ideas and information across society.

Most young adults in the target age group for this project, which is 20 – 30 years are considered digital natives. The term 'digital natives' means persons who have been exposed to and have relied on internet-based tools for communication before reaching adulthood. The term digital immigrants is used for those that reached maturity before the widespread use of the internet (Linne, 2014). While being a digital native does not imply proficiency of use, evidence highlights that they are more likely to have digital skills (Correa, 2016). The availability of internet technology and its growing affordability could be accessed to disseminate health-related information. It is currently being used by "Influencers" and "YouTubers" to a massive extent, but perhaps less so by government and non-government agencies. This aspect is well suited to taboo issues such as SRH due to the private, discrete, and on-the-go access that internet users experience (Nik Farid et al., 2018).

Furthermore, the advent of the Internet-of-Things (IoT) allows for meaningful connectivity between devices. The IoT is a network of sensors placed within devices and gadgets that connect to the internet and record information (Asghar et al., 2015). While generally used in wearable devices, the IoT has enabled technological advances in products of women's interest.

Femtech products use technology to improve women's health, and is a significant new development in women's health globally (Wiederhold, 2021). These technologies present potential as they enable women to lead more productive lives. For instance, the discreet and wearable breast pump created by Elvie© allows connectivity between the breast pump and a mobile app. It enables tracking both the quantity of expressed milk and the milk supply (Klich, 2019). The AVA Bracelet© provides users insight into their menstrual cycle, fertility, and general health while worn when they sleep at night (Goodale et al., 2019).

Furthermore, Femtech could result in the creation of products that will increase knowledge of SRH issues and, therefore, support health promotion. For instance, I use the mobile application Ovia Fertility. It enables me to track my period, track symptoms associated with menstruation, and quickly find out in which phase of the ovulation cycle I am. Additionally, it provides information about nutrition and wellbeing associated with trying to conceive. It has enabled me to discretely store information, as well as access information about ovulation quickly. Many such applications also connect to the IoT which uses algorithms to predict aspects such as ovulation.

However, while these Femtech products create ease for women to care for themselves, there is more to be done to successfully understand how they can support and improve women's quality of life. In addition, there has been a lack of internet-based products for the more complex support interventions such as sharing information on taboo subjects. Sexual and reproductive health promotion can provide women with the information required to use Femtech products, while internet-based products can support the development of a community of practice.

1.5. Aim of the project

The project aims to address the SRH needs of young migrant women diaspora from the Indian subcontinent. One approach proposed for meeting these needs is by empowering women to be involved with SRH decisions that will influence their lives and health (Kirby et al., 2004; World Health Organization, 2016). Previous research shows that people are increasingly interested in their health (Aicken et al., 2016), which could provide an opportunity for innovative projects that will benefit the community.

Community-led initiatives are likely to be more relevant to the participants (Conn et al., 2017). Among many approaches to working with the community, participatory action research (PAR) methods are very popular in health research with target groups. The community are acknowledged as experts in the PAR process as it draws on ideas and expertise from the target group. Co-creation is a branch of participatory research that has developed more recently. It involves collaborative creation process for a shared goal.

There is a growing recognition that it can lead to social innovation, creating social value within the community (Cornet & Barpanda, 2021). Moreover, given that the cultural and traditional practices of young women diaspora differed significantly from those in New Zealand, they must identify solutions to their issues within the community. Therefore, this project aimed to provide a safe space for the co-creation of SRH promotion.

Furthermore, I chose a practice-oriented approach over a traditional MPhil pathway because it ensures that research is relevant to the public health practitioner and the community (Ammerman et al., 2014). Traditional health research methods are concerned mainly with written outputs. Practice-oriented approaches emphasise the processes involved in addition to the outcome, as well as the knowledge gained by the researchers. This knowledge may be captured through reflection and impact praxis. As previously noted, PAR research considers participants as experts of their lived experiences. Therefore, PAR and practice-oriented approaches are well suited to research taboo issues, such as SRH, where engagement in the project can significantly benefit from social interaction (Temple-Smith, 2014).

Research Question

The main research question investigated in the project was:

What strategy(s) do young women from the Indian subcontinent residing in New Zealand identify to co-create internet-based sexual and reproductive health promotion?

The research sub-questions were:

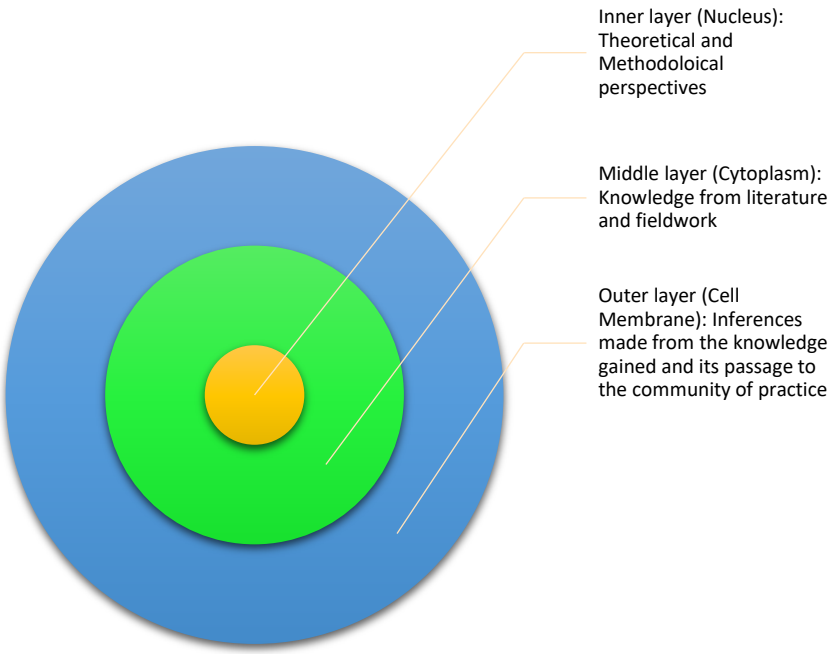
1. What are the views of young Indian women living in New Zealand on SRH information and advocacy?
2. How can young Indian women be empowered to co-create internet-based SRH promotion?
3. What ideas and tools for internet-based SRH promotion emerge from the co-creation?

1.6. Conceptualisation of the project

Like any complex health problem, research in SRH promotion is not straightforward. It seemed that it was best I approached this project as multi-layered. My background in the medical sciences allowed me to visualise the layers of my project through the description of a human cell (see Figure 1.1).

Figure 1.1

The layers within this project



Just as a human cell has a nucleus that controls its function, the innermost layer of this project consisted of the theoretical and methodological perspectives that influenced it. Furthermore, a human cell has a cytoplasm that provides a medium for organelles and chemical reactions. Such was the middle layer of the project; it allowed the immersion in the knowledge from literature and the fieldwork. Third, the human cell has a tough outer covering called the cell membrane. This vital semi-

permeable membrane acts on the behest of the nucleus, depending on the function of the organelles. It also controls the movement of substances between the intracellular and extra-cellular fluid. Justly so, the outer layer created a well-defined safe space for the co-creation of SRH promotion. The interrelationship between the layers allowed drawing inferences and transferring knowledge to the community of practice. The community of practice in the context of this project is defined as young women diaspora interested in creating SRH promotion. The knowledge generated through this project could address the public health burden of SRH as it would represent what the community deems essential regarding SRH.

1.6.1. Inner layer - Methodological and theoretical underpinnings

Participatory action research involves collaborating with community members to create knowledge from shared lived experiences of the group (Baum et al., 2006). Co-creation allows researchers to engage with the community and identify solutions to improve their health (Sanders & Stappers, 2008). Therefore, co-creation is likely to lead to acceptable and sustainable outcomes that are valuable to the community (Jull et al., 2017).

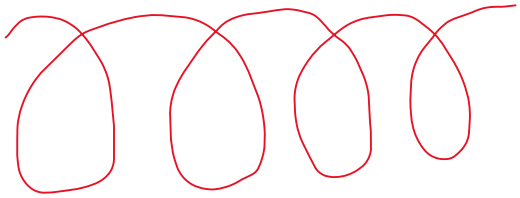
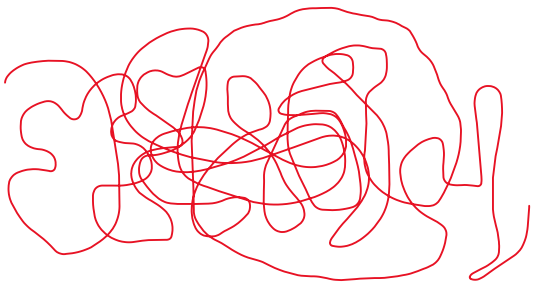
The cyclical nature of PAR made it the right choice of methodology as it fits with the customs and beliefs of people from the Indian subcontinent. The circle appears in various symbols within many traditional and cultural practices in the region, including dance, art, religious practices. Also, Hinduism, the majority religion in the subcontinent, proffers that one is born as a human on seven occasions during which they must gain ‘moksha’ – or enlightenment. Attaining moksha is considered the

desired outcome and frees one from the cycle of life and death. Similarly, the action research cycle follows a cyclical path until the desired outcome is achieved.

Participatory action research involves a series of planning, acting, observing, and reflecting stages until the desired outcome is achieved (Kemmis et al., 2016). However, it is essential to note that while one expects PAR research to be cyclical, where one cycle follows the other, it can be muddled, with the cycles often overlapping each other (Figure 1.2). This is because the PAR process allows the researcher to reflect on new information as it emerges and alter the course accordingly (Ripamonti et al., 2015)

Figure 1.2

Comparison of PAR research in theory and reality

What PAR research is expected to look like	What PAR research looks like in the field
	

The steps in the action cycle (i.e., plan-act-observe-reflect), would be used to ensure a structure throughout the project. However, I only completed one cycle due to the limited time available for pursuing this academic qualification. In preparation for the

fieldwork, I conducted a pilot test that mimicked the various stages of an action cycle. I followed the pilot test with an action cycle with the co-researchers.

1.6.2. Middle and outer layers - Knowledge obtained and interpreted

The middle layer addresses the knowledge gained from both the available literature and fieldwork. This knowledge includes the data collected through the focus group discussions (FGDs) and the reflections of the research team. Capturing the processes involved in the study would support the conceptualisation of the findings and enrich the data set (Greenhalgh et al., 2016). Furthermore, the reflections of the research team evaluate the achievement of the desired outcome. The outer layer draws on the knowledge gained through the project while creating meaning based on the theoretical and methodological underpinnings from the inner layer.

In conclusion, all three layers are essential for effective project outcomes—just as in a cell. The three components interact and draw on each other to support their structure and function. Therefore, I will discuss the theoretical and methodological underpinnings in the research design (Chapter 3). At the same time, I will conceptualise the context for the problem through the literature review (Chapter 2) and critical commentary sections (Chapters 4, 5, 6). I will discuss the overall knowledge drawn from the project in Chapter 7.

1.7. The contribution of the research

The research project will identify the SRH needs of the young Indian women diaspora. It will, therefore, support the community of practice to empower themselves and be supported for improved decision making. Furthermore, this project would be of

interest to those designing SRH promotion. The project will also document the process involved in the co-creation and may be of interest to future researchers. The project's main outcome is the SRH promotion framework designed from the knowledge generated through the fieldwork and the reflections of the research team. Such a framework could inform future research and the creation of tools for health promotion.

1.8. Organisation of the exegesis

This exegesis acts as a supporting document to the SRH promotion framework. It consists of seven chapters, with this current chapter defining the issue this project will address and its conceptualisation. Chapter 2 will evidence the comprehensive review of literature that informed this project. It will also provide a context to the reader about the Indian subcontinent and why SRH promotion is essential for the young women diaspora. Chapter 3 will analyse the theoretical and methodological underpinnings of PAR, provide a rationale for its use in this project, and explain its conduct. Chapters 4, 5, and 6 will provide a critical commentary on the study findings, with each chapter addressing a research sub-question. Chapter 4 will summarise the views and perspectives of the young women diaspora regarding SRH. Chapter 5 will explore how communities can be empowered to co-create SRH promotion. Chapter 6 presents the ideas and tools generated through the co-creation process. Furthermore, each chapter (4,5 and 6) will describe how it informed the development of the SRH promotion framework. Chapter 7 will conclude the exegesis with a discussion on the contributions and limitations of the project, and its implications for the field of health promotion.

Chapter 2: The need for SRH promotion for young women diasporas

2.1 Introduction

To develop a sound understanding of current knowledge surrounding the project topic, a critical review of sources was conducted. The review focuses on SRH and internet-based SRH promotion, particularly among young women diaspora from the Indian subcontinent living in New Zealand. The word critical in the context of a critical review means the researcher will analyse and interpret, and not merely describe the available literature (Denney & Tewksbury, 2013; Grant & Booth, 2009). However, the theoretical perspective informing this study (i.e., critical theory), involves a critique of society and culture to develop an understanding of the worldviews and the power that drives them (Ryan, 2018). Therefore, this literature review will critically analyse the understanding of SRH and the evaluate the need for SRH promotion. Furthermore, a critical review allows for value addition through inferences informing policy decisions (Fisher et.al, 2020; Wee & Banister, 2016).

As pointed out in Chapter 1, this study aims to enable young women diaspora from the Indian subcontinent to co-create SRH promotion. The project will address this aim through the research question and sub-questions. A review of existing literature was conducted to explore the following questions in preparation for the fieldwork. Each of these questions addresses a sub-question of the aim of this project.

1. What are the sexual and reproductive public health issues faced by the young women diaspora from the Indian subcontinent living in New Zealand?
2. Why might SRH promotion be important and a suitable response to SRH for young women diaspora from the Indian subcontinent living in New Zealand?
3. How is the internet shaping health promotion? How might it relate to the SRH of young women diaspora from the Indian subcontinent living in New Zealand?

The initial plan for this literature review included studies conducted in New Zealand and countries of the Indian subcontinent addressing SRH and health promotion. However, I encountered a paucity of literature from these specific countries on these subjects. Other countries with similarities to the Indian subcontinent were, therefore, included. The similarities included religion, deep-rooted cultural practices, and considering SRH a taboo conversation.

The literature was obtained from various databases, including PubMed, ScienceDirect, Google Scholar, and Scopus. However, I found a lack of primary literature about migration from the Indian subcontinent. Data from secondary and tertiary sources, such as reports from government agencies, web pages, and media were included to address any gaps in understanding. The keywords used for initially identifying literature were “health promotion”, “SRH”, “Indian subcontinent”, “migration”, “New

Zealand", and "young women". Boolean operators with the terms "ehealth promotion", "SRH for young women", "women from the Indian subcontinent in New Zealand", were used to narrow the search. Due to the lack of literature about women from the Indian subcontinent in New Zealand, other wording variations were used to identify the literature. Research published between 2010 and 2021 were included in the review.

2.2. Question 1: What are the sexual and reproductive public health issues faced by the young women diaspora from the Indian subcontinent living in New Zealand?

This section explores the SRH public health issues faced by the young women diaspora from the Indian subcontinent and provide a rationale for examining the needs of this specific group. It will also investigate the role of migration and its impact on the SRH needs of young women.

2.2.1. Migration statistics for the Indian subcontinent diaspora

Since the beginning of time, people have travelled and settled in new lands. Currently, people move for economic, academic, social reasons; or, due to displacement following conflict or to maintain familial ties. The literature points out that international migrants make up around 272 million or 3.5% of the global population (Aryal et al., 2020). Interestingly, 48% of migrants are women (United Nations, 2019b). Additionally, one in every seven international migrants is below the age of 20 years (United Nations, 2019a). The 2030 Agenda for Sustainable Development recognises the impact of migration and aims to keep it thriving through efforts within the set-out goals (Holliday et al., 2019). In New Zealand, approximately 25% of the

population born overseas has migrated in the last 10 years, with a vast majority settling in Auckland (Statistics New Zealand, 2018b).

India had the highest number of international migrants globally in 2019, with 17 million people forming part of the Indian diaspora. There has been an increase in the trends for migration from Asian countries to New Zealand, with the most significant increase seen among Indians (Joseph, 2016). From among people within New Zealand that identify with a South Asian ethnicity, a majority were born overseas and are, therefore, first-generation immigrants. The New Zealand Census of 2013 found that 76.5%, 85.1%, 73.9%, and 77% of the Indian, Sri Lankan, Pakistani, and Bangladeshi population (respectively) in New Zealand were born overseas, with Indians now making up 4.7% of the population in New Zealand (see Table 1).

Table 1

Ethnic Breakup of the target population from the Indian subcontinent in New Zealand in 2013 and 2018 (Statistics New Zealand, 2014, 2018a)

Ethnicity	Population in 2013	Population in 2018	Growth in the population (2013 – 2018)	Percentage of the population (2018)
Indian*	156018	222882	66864	4.7
Sri Lankan**	13023	16920	3897	<1.0
Pakistani	3261	6135	614	<1.0
Bangladeshi	1623	2337	2040	<1.0
Nepalese	1590	3630	2874	<1.0
Burmese	2187	2475	288	<1.0

* Includes Indian nfd, Indian Tamil, Punjabi, Sikh, and Indian nec
** Includes Sri Lankan nfd, Sinhalese, Sri Lankan Tamil, and Sri Lankan nec

Additionally, New Zealand has seen a surge in Indian students over the last five years, with as many as 29,000 students choosing to study here in 2015. Of these, a vast majority enrolled in Private Training Establishments (PTEs) and Institutes of Technology and Polytechnics (ITPs), which offer polytechnic or bachelor courses (Enoka, 2016). To help new students familiarise themselves in New Zealand, Education New Zealand (n.d.) launched the NauMai NZ online platform in May 2019. This website provides students with information about services available before and after arriving in New Zealand, including healthcare and sexual health. The information available is significant as the knowledge of international students on SRH may differ from that of domestic students. However, the content is particular to students with information about student clinics. There are no other websites providing information for different age groups and situations.

2.2.2. The SRH needs of young women migrant diaspora

The WHO and other public health agencies have exerted significant efforts for the sexual health education of adolescents. It is imperative in the adolescent and young adult sections of society. Previous research has demonstrated that sexual health education is the most reliant method for preventing risky behaviour in these age groups (Tolman, 2016).

There is, however, a significant lack of interventions for young women. Many young women may choose not to be sexually active as adolescents but being a young adult may provide more avenues for sexual experiences. Young adulthood is a phase in which a person may make discoveries about their choices (Scott et al., 2011). The sexual and romantic relationships formed at this stage can have profound implications

later in life. Previous research has shown that the highest rates of nonmarital and non-intentional childbearing occur within 20-24 years of age (Scott et al., 2011).

Young women diasporas from the Indian subcontinent are also likely to experience a paradox of cultures, including a change from the conservative culture around SRH in the Indian subcontinent to the appearance of sexual liberality in New Zealand. While the culture around SRH may appear to be open in New Zealand, the truth is far from reality. Sexual reproduction and health in New Zealand experiences a similar set of problems, with people not talking about sex. While sex education is part of the curriculum in New Zealand, many schools elect not to teach it (Fitzpatrick, 2018). The SRH information and promotion will support young women diasporas to express their sexuality in a manner that feels safe and free from discrimination or exploitation.

2.2.3. Migration and SRH – the creation of a public health problem

Previous research has suggested that new migrants are generally well at the time of migration. Still, their health can significantly decline due to an interplay of various factors, including social conditions and communicable diseases that are different to their hometown (Miramontes et al., 2015). High costs to access healthcare, and cultural and language barriers can contribute to restrictions in their utilisation of health services (Kanengoni et al., 2018; Miramontes et al., 2015).

New Zealand has been struggling with high rates of STIs for the last few years. The New Zealand Health Survey of 2014-2015 highlighted that about 20% of the female population reported having an STI at some stage in their lives, with a peak in cases between 20-24 years of age (Ministry of Health, 2019). Additionally, the number of

abortions among Asian women is alarmingly high at almost 21.5% in 2019 and has been steady since 2007 (Statistics New Zealand, 2020). Of note, is that the overall rate for abortions in New Zealand has been significantly dropping. Furthermore, unplanned pregnancies have traditionally been associated with adolescents; yet, a global shift questions this notion as previous research indicates that the largest rate of abortions occurred in the age group of 20-24 years (Statistics New Zealand, 2001, 2014, 2020).

A recently conducted integrative review of the literature available on the current health of New Zealand immigrants, highlighted the sheer lack of research relating to SRH (Kanengoni et al., 2018). This study also highlighted that more young women than men are migrating to New Zealand. One of the associated challenges with migration is that a young woman is more vulnerable to poor health than men (Kanengoni et al., 2018). The Women's Health Action Trust (Women's Health Action, 2014) argued that sex and gender result in different health needs and outcomes for men and women. Many immigrants are on temporary or student visas and are expected to spend out-of-pocket to access healthcare. This can make healthcare and medications difficult to access and might leave SRH needs significantly lower on the priority list (Babar et al., 2013). Resettlement challenges such as lack of awareness about available services and the acceptability of benefits compared to the place of origin can result in sexual health being a very low priority (Metusela et al., 2017).

2.3. Question 2: Why might SRH promotion be important? What is a suitable response to SRH for young women diaspora from the Indian subcontinent living in New Zealand?

This section will underline the importance of health promotion for young women from the Indian subcontinent. It will begin with an outline of the status of health promotion in the Indian subcontinent, followed by a description of why health promotion might be a suitable response to meet the SRH needs of the young women diaspora.

Health promotion involves individual and community measures to improve knowledge, attitudes, and practices towards health. Improvement in the health status of the community results in an improved quality of life and reduction in healthcare costs to individuals and the State (World Health Organization, 2016). Additionally, for health promotion to be effective, policymakers must prioritise health (Kumar & Preetha, 2012). Therefore, it is essential to consider the context and state of development of public health in the home countries of young women that may migrate to New Zealand. This section would thus be of interest to those wanting to learn about the cultural context of SRH in the Indian subcontinent.

2.3.1. SRH promotion in the Indian subcontinent

When one considers the history of the Indian subcontinent, various aspects come to mind, including the Kama Sutra and the various temples, still frequented by the public, that have sexual depictions (Das & Rao, 2019). Despite this historical liberality about sex, in the modern-day Indian subcontinent, sex is deeply controversial, contested, and taboo (Bhatt, 2018; Chakraborty & Thakurata, 2013; O'Sullivan et al., 2019). In such a scenario, women lack the opportunity to express their choices because of a predominantly patriarchal society and poor gender equality (Granek & Nakash, 2017; Louie et al., 2009). Women experience the disproportionate burden of poor sexual health outcomes (O'Sullivan et al., 2019).

With the rise in girl child education and women increasingly joining the workforce, it has become apparent that women are starting to demand equality in the workplace and the home (United Nations, n.d.). However, women are yet to understand the full spectrum of their choices regarding SRH. It is partly because sexual health is a taboo conversation, and most information is sought on an informal basis through friends or other unreliable sources (Metusela et al., 2017). Surprisingly, women also do not want to openly talk about their sexual health with other women (Bhatt, 2018). The lack of knowledge and awareness results in women not utilising all the available services.

Sexual and reproductive health, health promotion to teenagers aims to support the transition to manhood or womanhood in an informed, respected, and seamless manner. Favourable sexual practices such as safe sex and informed consent will improve the outcomes for SRH promotion (Aggleton et al., 2014). The Adolescence Education Programme (AEP) was introduced into the Indian curriculum at the beginning of this century to provide knowledge on physical, behavioural and psychological changes during puberty (Adolescence Education Programme, n.d.). However, it was met with controversy around the country.

Critics of the AEP argued that sexual health education corrupts young minds making them more promiscuous and more inclined to experiment (Ismail et al., 2015). There is a general contention that being sexually active is a Western concept and is not prevalent in the Indian subcontinent. It is culturally believed that people only indulge in sexual intercourse within marriage; and, in some instances, only for procreation (Mahajan et al., 2013).

Thus, some larger states such as Maharashtra, Kerala, Gujarat, and Karnataka banned the programme. Other states reached a compromise with the National AIDS Control Organisation (NACO) to develop an alternative curriculum. The curriculum has evolved as Sexual Health Education and Life Skill Education (Goa State AIDS Control Society, n.d.). Previous research has demonstrated that coupling sexual health education with life skill education leads to better decision-making regarding sexual health (Lee & Lee, 2019).

However, the big question that both parents and teachers raise is: whose responsibility should it be to provide sexual health education? Many parents see it as a professional subject and, therefore, leave it to the teachers to educate their children on SRH (Nadeem et al., 2021). Parents also do not have much guidance in providing good sexual health education. However, if teachers conduct sexual health education in a formal classroom environment, they must be trained to perform such sessions effectively (Nadeem et al., 2021). It may also be of value to familiarise the general public, especially parents, on how to speak to their children about sexual health issues (Nadeem et al., 2021).

In India alone, the 2011 Census revealed that 25% of the country's population comprises young adults in the age group of 15-24 years (Government of India, 2017). Yet, they contribute 31% of people living with HIV (PLHIV) in India (Ismail et al., 2015). Furthermore, unmarried young women may also steer away from sexual health services due to perceived risks of being identified and shamed for engaging in premarital sex (Botfield et al., 2018).

2.3.2. The need for health promotion for young women from the Indian subcontinent in New Zealand

Sexual and reproductive health has remained a taboo issue among young women from the Indian subcontinent. Barriers for young women to access services available in New Zealand could include stigma, fear of embarrassment or shame, and cultural practices (Waitemata and Auckland District Health Boards, 2017). Additionally, many young women from the Indian subcontinent are students, whereby the student insurance plans rarely cover STIs and other screening programmes.

While there is a need for SRH promotion for young women diaspora from the Indian subcontinent, there is a severe lack of current interventions. This can increase the public health burden. Good SRH outcomes are essential facets of the social determinants of health (Women's Health Action, 2014). While the Government recently announced an increase in funding for maternal health services in New Zealand, there is still a long road ahead for health promotion interventions (Kanengoni et al., 2018).

2.4. How is the internet shaping health promotion, and how might it relate to the SRH of young women diaspora from the Indian subcontinent living in New Zealand?

This section will describe how the internet is changing the face of health promotion. Traditionally, health promotion was disseminated through posters or pamphlets. However, the advent of the internet and, more recently, social media, has resulted in the digitalisation of health promotion. This section will discuss how SRH promotion might benefit from its digitalisation.

2.4.1. Community-based health promotion models

While health promotion has existed since early civilisations, it became formalised in the last two centuries (Tulchinsky & Varavikova, 2014). Early health promotion was directed at disease prevention, while more latterly, it has come to include health rights (Kumar & Preetha, 2012). The advancement of the digital era has presented SRH promotors with a unique opportunity to widen their reach in previously difficult-to-access community groups, including women and young adults.

Community-based health promotion models that have been in use over the last few decades involved consultations with the community members before and during the lifespan of the intervention (Leppin et al., 2018). While it incorporated feedback from the community and influenced buy-in, the intervention was still primarily institution led (Conn et al., 2017). However, with populations becoming increasingly interested in their health, greater emphasis must lie on community-led projects and co-design strategies as they could aim to reduce health inequities and demonstrate sustainability (Barry, 2021). There is a need to progress from traditional health promotion methods to transformative methods of health promotion. These include health promotion interventions at community and population levels to address the previously discussed challenges (Aggleton et al., 2014; Barry, 2021).

Since the early 2000s, health promotion has evolved to include and accommodate advances in technology, particularly the internet (Aggleton et al., 2014; Kumar & Preetha, 2012; Kumari & Bharti, 2021; World Health Organization, 2016). Prosumerism was a term coined by Toffler in the 1980s to define the blurring of roles

between the producer and consumer (Conn et al., 2017). Over the last decade, advances in internet technology have led to the growth of health prosumerism, creating vast opportunities for health promotion. Community-led, activist participation involves communities co-designing interventions or products for the common good of their communities (Conn et al., 2017).

Community-led prosumer based models are suited to vulnerable populations or taboo-related issues such as sexual health (Conn et al., 2017). Although society has modernised, conversations about taboo subjects like sexuality, sexual rights, contraception, are yet to be endorsed by many communities (Bhatt, 2018). The impediments may stem from cultural or societal norms that help maintain the status quo of these taboo conversations (Chakraborty & Thakurata, 2013; Latifnejad Roudsari et al., 2013). However, internet technology can blur the sharp divisiveness of these obstacles.

The use of the internet for health promotion allows taboo issues such as SRH to be anonymously and discretely discussed (Aicken et al., 2016). For instance, the website Oowomaniya was developed to be a safe space for women to seek information about SRH through forums and online consultations in India (Oowomaniya, n.d.). It is ideal for engaging with young women who can access information privately.

The extent of smartphone uptake by the community can also improve the ability to customise interventions. Furthermore, internet technology can employ co-creation interventions largely discreetly, all while encompassing geographical boundaries. For instance, a project created through Canva can involve collaboration from varied

locations. Such interventions may benefit a more significant number of communities as all co-creation members would be influential in its design (Stratos Innovation Group, 2016).

2.4.2. Rise of Femtech and internet-based SRH promotion

Femtech products are a category of products and services that use technology to support the SRH of cisgender women. The term was first coined by Ida Tin when she founded the period tracking app Clue. Since then, the sector has grown to include women's SRH wellness, pregnancy care, fertility solutions. The higher purchasing power of women has resulted from a larger number of women gaining higher degrees and having professional careers.

Furthermore, it has increasingly given rise to women entrepreneurs for Femtech products (Magistretti, 2018). Of about 200 start-ups in the Femtech industry, 92% are led by women (Yokoi, 2021). The self-need of improving health concerns has led to the development of many products; for instance, Kristy Chong's Modibodi©, reusable period pants, was developed because she experienced bladder leakage (ModiBodi, n.d.). These can support improved outcomes for women. Such products are of vital importance in the field of Femtech products as these are derived from prosumer projects and have a significant impact on the viability of the product in the market.

Femtech products have also increased their market share in the last five years and are poised for significant further growth. Recent technological advances have supported this exponential growth, with the industry primed at becoming a $50 billion industry by 2025 (Frost & Sullivan, 2018). There is a need for the rapid growth of health

promotion interventions to empower young women to make critical choices regarding using these SRH based Femtech products (The New York Times, 2021).

2.4.3. The rise of social media in the dissemination of health information

Social media encompasses the role of public health experts in health promotion. “Influencers” or “Youtubers” use their social media following to disseminate health-related information. While the intention may not be to overthrow the traditional position of public health experts, their “fan-base” may place greater relevance to the information on such social media “handles”. While this social media-based approach may be new, it could be better utilised for reducing health inequities and strengthening community solidarity. Professional “Youtubers” are known to provide health-related information through innovative approaches. It could be vital for future transformative approaches to health promotion (Barry, 2021; del Río Carral et al., 2021).

2.5. Conclusion

In New Zealand, although Asian migrant populations are growing, little is known about them. More research into this area will inform government, businesses, and community actions. The need for a sexual health intervention, such as this project, among young women diaspora from the Indian subcontinent is imperative. Identifying how migrant women view SRH and understanding first-hand the factors that can increase participation in healthcare services will increase the total uptake of the services available to them.

This review highlighted that there is an emerging trend for young women to leave their families to study and work in other countries, creating a new diaspora group.

Additionally, migration can increase the health needs of young women due to the lack of familiarity with the services available or the significant costs of healthcare. Young women diaspora are also likely to experience a paradox of cultures that can affect their integration into the community.

Furthermore, the review highlighted that young women diaspora are likely to experience minimal SRH promotion. Conversations addressing SRH are considered taboo and tainted with religious and cultural connotations. The review highlighted the key role that SRH promotion can play in the sector to inform decision making and potentially reduce the taboo of SRH issues.

There is also growing interest among people in their health, including an increase in seeking information on health-related concerns. Therefore, SRH promotion could create more informed young women. These young women would then be empowered to create health promotion that is age and culturally appropriate; and, therefore, meaningful to the community. It could include the co-creation of information or tools through prosumer projects.

The advent of the internet has changed the mode of health promotion from pamphlet or poster based, to social media and internet based. While this is an exciting opportunity, there is a lack of literature to support community members as “Influencers” and “Youtubers” to appropriately create and disseminate health information.

The literature highlights that there is scope for this project to enrich the understanding of SRH needs and the role that SRH promotion could play to meet those needs. The project will fill the current gap in knowledge about young women diaspora from the Indian subcontinent and address the increasing role of the internet in the dissemination of health information.

Chapter 3: Research design

3.1 The objective of the research project

This project aims to create a safe space for young women from the Indian subcontinent to co-create SRH promotion. The main research question for this project was: “What strategy(s) do young women from the Indian subcontinent residing in New Zealand identify for co-creation of sexual and reproductive health promotion?”

The research sub-questions were:

1. What are the views of young Indian women living in New Zealand on SRH information and advocacy?

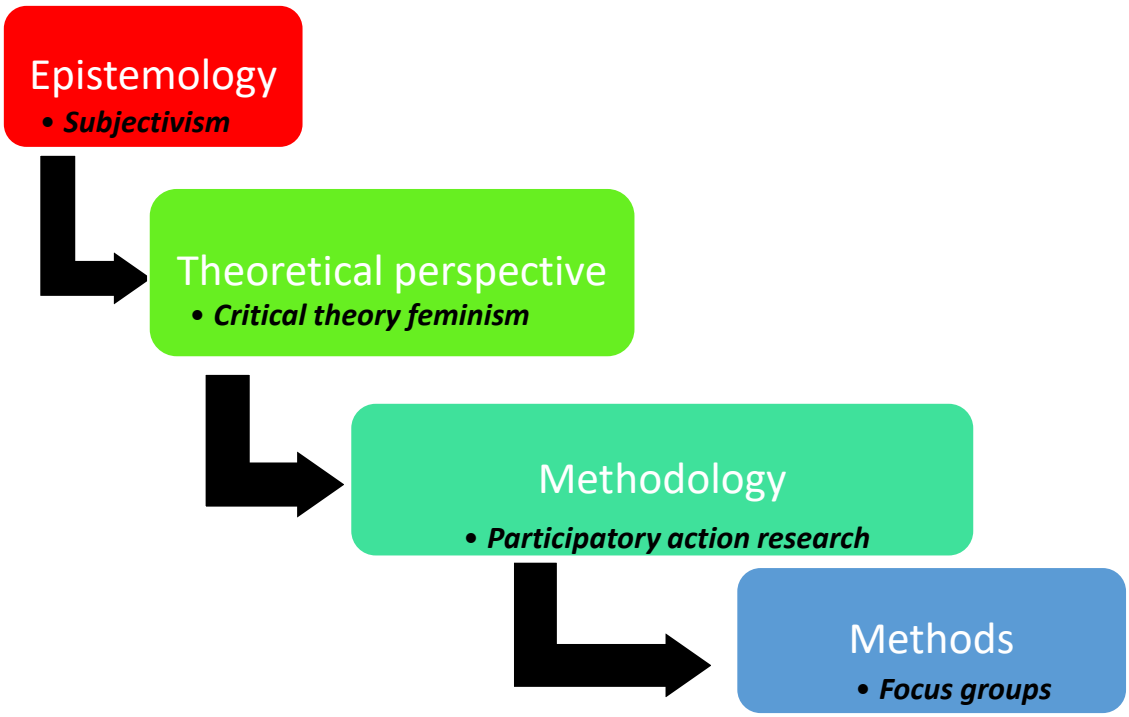
2. How can young Indian women be empowered to co-create internet-based SRH promotion?
3. What ideas and tools for internet-based SRH emerge from the co-creation approach?

3.2 Research paradigm informing this study

Michael Crotty (1998) defined epistemology as the nature of knowledge; the theoretical perspective as the lens for the research process; the methodology as the approach that justifies the methods; and the methods as techniques employed to gather the data. In keeping with these definitions, subjectivism was chosen as the epistemology; critical theory, particularly feminism, was identified as the theoretical perspective; participatory action research was the chosen methodology; and co-creation focus groups were the method employed for data collection (Figure 3.1).

Figure 3.1

Research paradigm that underpins this study (adapted from Crotty, 1998)



3.2.1. Subjectivism and SRH

Subjectivism is based on the premise that knowledge is constructed through interactions of the research team. However, this knowledge is filtered through the lens of culture, religion, age, ethnicity (Levers, 2013). Subjectivism also emphasises the value of constructed knowledge (Crotty, 1998). It allows for a specific reality to be built that will be meaningful to the population group (Lee, 2012). Crotty (1998) argued that culture shapes our actions and is not a result of them. Culture, therefore, shapes how communities behave as well as perceive reality.

In the Indian subcontinent, SRH issues are usually explained through the symbolism of cultural and religious practices. This symbolism exists in modern society due to a lack of education and knowledge on SRH concepts and the predominance of stigma (Garg & Anand, 2015). Furthermore, the literature points out that Indian women

endorse these practices allowing them to continue being used (Mitra & Knottnerus, 2008).

Young women from the Indian subcontinent have lacked a voice in SRH issues (Banerjee et al., 2015). This project aimed to understand the views and perspectives of the young women diaspora on SRH issues. Subjectivism, coupled with feminism, would empower these young women diaspora to create culturally appropriate realities. Furthermore, the project empowers these young women to develop SRH promotion meaningful to them and the community. Participatory action research and the co-creation process informed by subjectivism and feminism enabled the young women diaspora to co-create strategies and tools using prosumer models. Prosumerism, although not a new concept, has gained momentum in the last decade due to the opportunity for collaboration created by the internet. Therefore, this project provided a platform for the young women diaspora to co-create strategies and tools for SRH promotion.

3.2.2. Feminism and SRH

Within the critical theory tradition, the theoretical perspective that guided this study was feminism. Although feminism developed to support gender equality in the Western world, it has been used to research women's rights and interests (Brunell & Burkett, 2020). Feminism is well suited to gender issues and matters of sexual health (Curtin et al., 2011). As previously mentioned, young women from the Indian subcontinent have suffered due to a lack of voice, including SRH issues. Feminism will provide the scaffolding required for the young women diaspora to recognise their

rights related to sexual health and make informed decisions on SRH issues. It will further aim to bring about social change and create new knowledge.

Additionally, feminist research emphasises the meanings women give to their experiences (Hesse-Biber, 2012; Jenkins et al., 2019). It is important to note that while the Indian subcontinent consists of one large landmass, the religious and cultural practices are varied. The landmass that now forms the subcontinent consisted of warring kingdoms that practised different religions, had different cuisines, and different societal structures. For instance, areas with a Hindu majority followed the caste system with hierarchies of labour, rights, and social mobility. Aspects such as religion also significantly influence SRH rights (Arousell & Carlbom, 2016). Therefore, feminism, drawing from subjectivism, can scaffold these young women to embrace faith and culture while generating new knowledge.

3.2.3. Feminist Participatory Action Research (FPAR) and its impact on the study design

Having considered using PAR, and drawing epistemological threads from feminism, I choose Feminist Participatory Action Research (FPAR) to inform my research study. It involves research concerned with participatory action-driven approaches that place women's experiences at the centre of action creating their reality (Coghlan & Brydon-Miller, 2014). I chose this approach as PAR and feminist research complement each other. Both are suited to vulnerable populations and highlight the population's experiences being studied. Additionally, they aim to bring about social change.

Feminist participatory action research approaches also encourage women to address gender inequalities and social rights (Johnson & Flynn, 2020). This project will only

address disparities in social rights that young women diaspora from the Indian subcontinent might experience when decision making for sexual and reproductive health. The FPAR process aims to empower the community with the tools to continue the action cycle beyond completing the research study (Johnson & Flynn, 2020).

3.2.4. PAR as a methodology for the co-creation of SRH promotion

The PAR process requires a partnership approach between the researcher and the participants to research a given issue (Baum et al., 2006; Guerin, 2011). It contrasts traditional research that would involve a researcher holding a position of power over the participants, with participants not having a voice in their representation (Kidd et al., 2018).

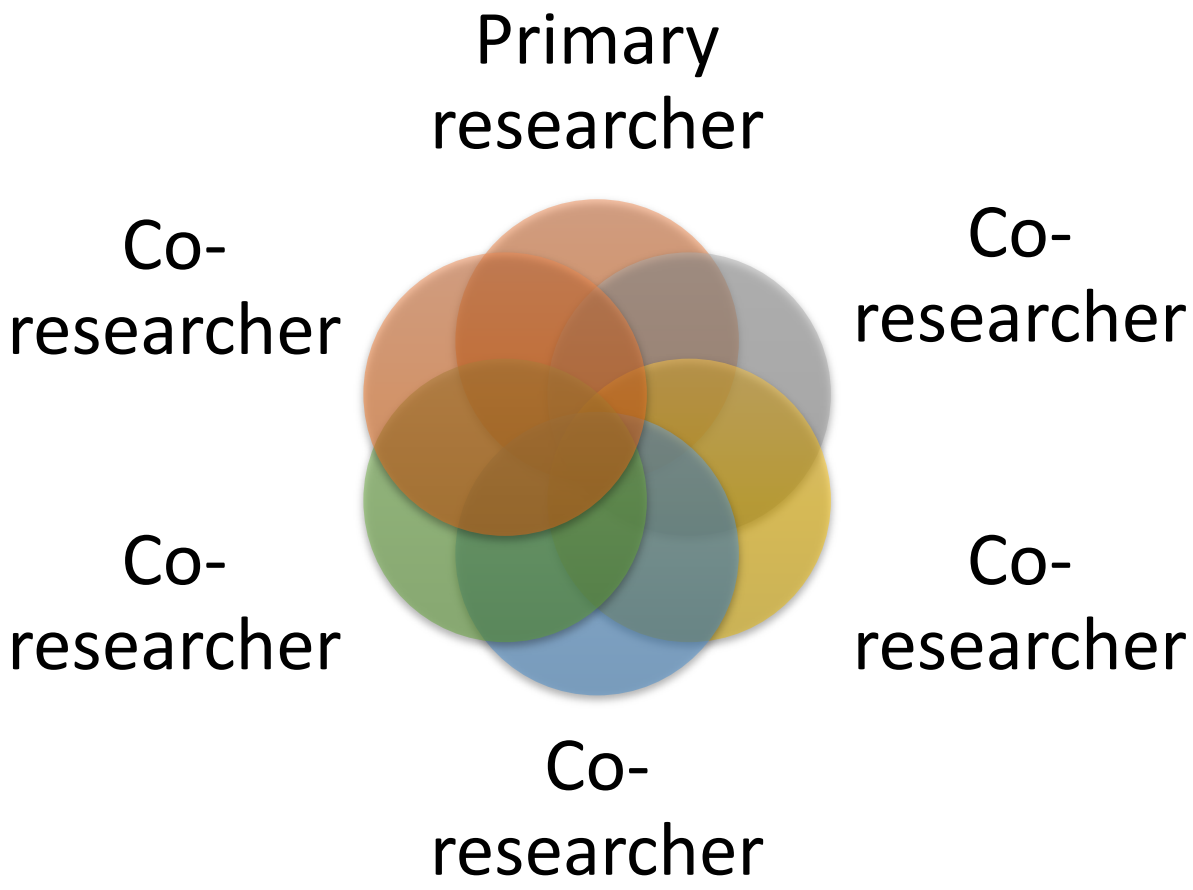
Participatory action research finds its roots in the work of Paulo Freire, who developed this theory to support communities to learn more about their origins and the reasons for their oppression (Dearfield et al., 2016). Participatory action research allows for community-specific research; and is well suited to this project, as it supports researching a largely taboo issue of sexual and reproductive health. Furthermore, as previously mentioned, traditional practices informed by culture and religion dictate young women's decisions regarding SRH. Women are also known to emphasise such practices (Mitra & Knottnerus, 2008). PAR research differs from traditional research through certain principles, including enabling action through a reflective cycle (Benjamin-Thomas et al., 2018).

Participatory action research processes include research planning, data collection and analysis, followed by reflection and future planning (Kemmis et al., 2016; Kidd et al.,

2018). Furthermore, PAR research aims to reduce the power differences between the researcher and the researched (see Figure 3.2). This aspect particularly appealed to me, being a practitioner that strives to empower the community through advocacy and information. The practice-oriented nature of PAR also fitted well with the objective of conducting this research; empowering young women from the Indian subcontinent to create SRH promotion that will support the community to be informed on SRH issues.

Figure 3.2

Venn diagram depicting the blurring of power dominance in the co-creation process



3.2.5. Co-creation focus group discussions (FGDs)

Action-oriented and collaborative FGDs are suitable methods for PAR research. Realities can be constructed when young women engage in group discussions as subject experts of their own experiences (Greenhalgh et al., 2020; Kemmis et al., 2016; Liamputtong, 2017). Additionally, FGDs are well suited to constructivist epistemology and co-creation research (Kitzinger, 1995). They encourage participants to develop their questions, identify why they are essential, and explore their meanings (Kitzinger, 1995).

Co-creation focus groups differ from traditional focus groups in their makeup and execution (Kemmis et al., 2016; Krueger & Casey, 2015). The primary researcher controls traditional focus groups and participants are only involved in the data collection phase, having no say in how they present in the final report. Co-creation focus groups employ participatory methods, often visual, to generate data. It includes the active involvement of the participants as co-researchers. They are involved in the planning and execution of the meetings to gather data. They are also usually concerned with the data analysis phase and have a voice in their representation (Kemmis et al., 2016).

In a co-creation setting, the primary researcher moves from the traditional role of conductor to the role of a facilitator (Westin & Salén, 2019). In conventional research processes, the primary researcher needs to create knowledge from the data generated during fieldwork exercises. However, in co-creation research, the primary researcher's role is to foster discussions that result in the generation of new knowledge (Aguirre et al., 2017).

The concepts of co-creation, co-design, and participatory design have become widely used across various disciplines. They have increased in popularity due to companies preferring to collaborate with consumers to create products that may be more acceptable to them. Advances in internet technology have enabled greater collaboration among people. It has also led to a rise in prosumerism (Rayna & Striukova, 2016).

However, the terms co-creation, co-design, and participatory design are sometimes used interchangeably, obscuring their meaning. For instance, Tsekleves et al. (2018) and Westin and Salen (2019), do not differentiate the terms co-creation and co-design. However, Sanders and Stappers (2008) stated that co-design means a collaborative design of a service/product. In contrast, co-creation indicates creating a service or product that is valuable to those who made it. Additionally, others suggest that co-creation involves the process of collective creativity between two or more persons in varying capacities. In contrast, co-design, considered a form of co-creation, requires involvement in the planning and execution process (Lee et al., 2018; Sanders & Stappers, 2008).

3.3. Positionality

From the beginning, I aimed for a co-creative space for the group to meet and work. It seemed reasonable as a design feature, given that I had so much in common with the other women. I am a young woman, had become part of the diaspora of young women less than five years ago, and had similar experiences concerning SRH. I was, therefore, an insider on this project (Dwyer & Buckle, 2009). I fit all the inclusion criteria, sharing many similarities to the group. Being an insider to the team enabled me to

appropriately facilitate the discussions as I had similar lived experiences, understood the cultural norms and the impact they have on SRH issues, and the lack of voice that young women diaspora from the Indian subcontinent have experienced.

3.4. How was the data gathered?

This section of the exegesis will discuss the processes involved in gathering knowledge. As previously highlighted, capturing these processes is essential as they provide rich learning. This section will demonstrate how the theoretical and methodological underpinnings translate into the outcomes.

3.4.1. Preparatory stage

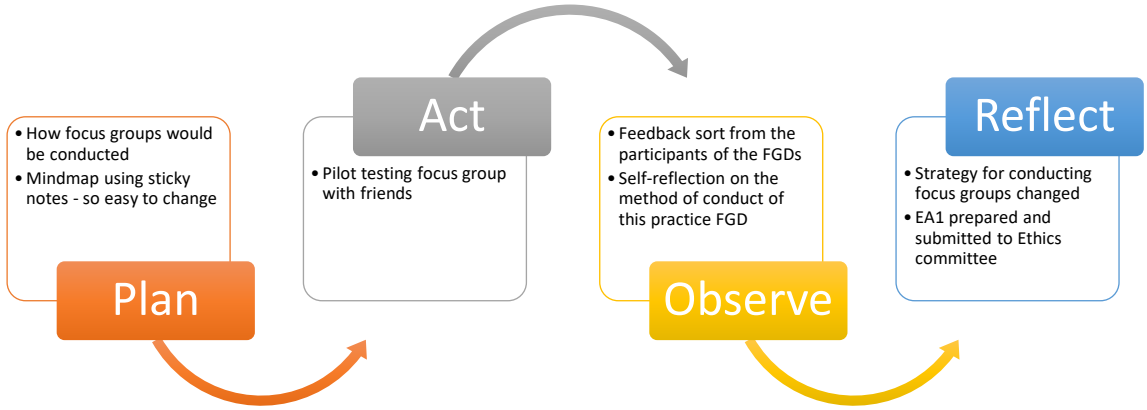
As it was my first instance of conducting action research, completing at least one practice run was appropriate and beneficial. I initially reflected on conducting the FGDs in my data collection phase. I mind mapped to identify possible questions to have a flow through the discussions. I placed sticky notes on the wall above my desk, which allowed me to revisit the plan on multiple occasions and make changes quickly. I then planned my pilot test FGD (See Figure 3.3).

This practice was conducted with friends for over 2 hours. I explained the concepts of PAR and their role in the project, following which I facilitated a discussion on the role of the internet in our everyday lives. Feedback was sought about how the session was conducted. The feedback I received indicated that I used jargon, and it was not easy for them to understand their role in the project. I spent time following this practice in developing a better script explaining PAR as a methodology, the methods employed, and the role of the co-researchers in the project. I also modified the sequence of FGDs

to create sufficient time in the first FGD to explain the PAR processes and co-creation methods appropriately.

Figure 3.3

The preparation meeting was loosely based on Kemmis et al. (2016)



3.4.2. Research ethics

Ethics approval was received from the Auckland University of Technology Ethics Committee (AUTEC) on 2 September 2019 (reference number #19/235, Appendix A).

3.4.2.1. Safeguarding the co-researchers

Measures were implemented during the FGDs to ensure that the co-researchers did not feel vulnerable. Previous research has highlighted that key challenges in the conduct of FGDs include adhering to confidentiality, anonymity, and reduction of harm (Sim & Waterfield, 2019). During the information meeting with the co-researchers, I provided a formal explanation about how I would maintain their confidentiality and

what was expected of them to safeguard others. It included not discussing matters/issues brought up during the FGDs with persons outside the research team.

Co-researchers were encouraged to clarify concerns during the information meeting. They were given the information sheet (Appendix B) and consent form (Appendix C) to take away and return if they were interested in participating; thereby ensuring that only those genuinely interested would be chosen. The completed consent forms were obtained from the co-researchers before the commencement of the data collection and included consent to digitally audio record the sessions along with their transcripts, any written material generated during the brainstorming, and future use of the data for publication or presentation at a conference. They were reminded that they were free to withdraw from the project at any stage without being disadvantaged.

The co-researchers were informed of counselling services available to them through the Auckland University of Technology, and the details were provided with the information sheet. They were told of this service because discussing a taboo issue like SRH can bring them memories of sexual abuse or similar issues (Sim & Waterfield, 2019). They were also provided with the contact details of the primary and secondary supervisors and encouraged to contact them if they felt mistreated or uncomfortable with my actions during the FGDs.

3.4.2.2. Who were the co-researchers?

The study inclusion criteria comprised young women from the Indian subcontinent who had migrated to New Zealand in the last 5 years, spoke English fluently, and aged between 20 and 30 years. No exclusion criteria were applied. While the aim was to

identify at least one representative from each community, the final co-researcher profile included three Indian and two Sri Lankan young women. The benefit, however, was that the women came from different parts of their representative countries and had varied backgrounds. Four women were married, mostly in the last 3-4 years; three had a child less than a year old, while one was pregnant; and one was unmarried but lived with her partner. It provided some diversity within the group. Additionally, two co-researchers came from retail backgrounds, two women were in sales, and one was in insurance. The varied backgrounds of education and careers also lent a degree of differentiation to the FGDs.

3.4.2.3. How were they identified?

Facebook and Neighbourly were utilised for the recruitment of co-researchers. These social media platforms were chosen to disseminate the advert as they have a high user base among the New Zealand population. The age groups of 25-34 and 18-24 years held the first and second positions among all Facebook users with 850,000 users and 670,000 users respectively as of January 2018 (Statista, Jan 2018).

Neighbourly was chosen on the premise that it is a social community-based application and has a significant userbase in Auckland (Scoop Media, 2019). I used Facebook groups and pages to reach out to young women from all target populations (i.e., Indian, Sri Lankan, Nepali, Pakistani, Bangladeshi). This form of purposive sampling was used due to the nature of the study, the specific research questions, and the inclusion criteria. Previous research has supported such a stance (Palinkas et al., 2015).

Furthermore, snowballing was employed with the first two applicants to identify other participants. This process continued until all the co-researchers had been identified. Snowballing was chosen due to the intimate nature of ethnic communities in New Zealand. Literature has pointed out that diaspora from the Indian community prefers to socialise and work with others of their ethnicity due to familiarity and understanding of culture and way of life (Nayar et al., 2012).

3.5. Data collection

The stages in the data collection process were planned according to the action research cycle by Kemmis et al. (2016). The cycle stages were used to scaffold the research team to ensure that PAR principles were met, and that the data was appropriately generated. Before the first FGD, I designed a probable plan for the FGDs and estimated that approximately five FGDs would be required to discuss all the aspects needed for the co-creation of SRH promotion.

During the information evening, I asked prospective participants to share if any support was required to ensure their attendance. Two co-researchers expressed concern that meetings would be held on Saturdays when their regular day-care facilities were unavailable. I therefore identified two specific venues in Auckland that could be used for data collection—Columbus café in the Sylvia Park mall and Nandos in St Lukes mall. These venues were chosen as free childcare facilities were available at these premises; thus, enabling team members' undivided attention in the discussions.

3.5.1. Stages of the action cycle

3.5.1.1. Stage 1: Plan

I created the plan for the first meeting, designing it to be a detailed introduction to the project and the team members. At the first meeting, we planned and scheduled all subsequent sessions (Table 2). A theme was chosen for each meeting and identified the critical aspects for discussion. While we established a plan (Figure 3.7) at the outset of the data collection, we revisited it at the beginning of each FGD to assess if it needed modification. It is in keeping with the PAR process that allows researchers to amend plans to accommodate new information as it appears.

Table 2

Plan for FGDs drawn out by the research team

Focus group no	Theme	Key aspects to be discussed
2	Sexual health	What is it, and why is it important?
3	Reproductive health	Its importance and its role in our lives
4	Use of the Internet for fulfilling health needs	How is the Internet supporting decisions regarding my health
5	Co-creation of Internet-based SRH promotion	What can we contribute to the community?

3.5.1.2. Stage 2: Act

This stage of the action cycle includes the activities undertaken to generate the data. We chose pseudonyms during the first meeting for ethical reasons (Table 3).

Table 3

Pseudonyms that were chosen by the research team

Participant	Pseudonym
Participant 1	Donna
Participant 2	Kavya
Participant 3	Bridget
Participant 4	Andrea
Participant 5	Vahini
Participant 6	Elisha

This section will describe each focus group as subsections as they had different themes.

FGD 1: Introduction

I explained the principles of PAR and the value of co-creation. Evidence has shown that the primary researcher must define the principles of PAR and co-creation to the co-researchers to obtain successful outcomes from PAR research (Tsekleves et al., 2018). An icebreaker, popular among school children in the subcontinent, was used. It brought back fond memories for all of us and highlighted common threads although we came from different parts of the subcontinent. It energised the women as well as created a sense of belonging. Previous research has proven familiar games as an apt method when engaging with young people (Thabrew et al., 2018).

FGD 2: Sexual health

In this meeting, we decided to discuss the concept of sexual health. The covered aspects included creating a working definition of sexual health and identifying its role in our lives; however, there was a reluctance to speak on the topic and everyone avoided eye contact. After a silence of about 30 seconds, I decided (as facilitator) to conduct an icebreaker activity. The activity involved voicing out the first-word concerning aspects such as sexual intercourse and contraception. This activity helped stimulate conversations.

FGD 3: Reproductive health

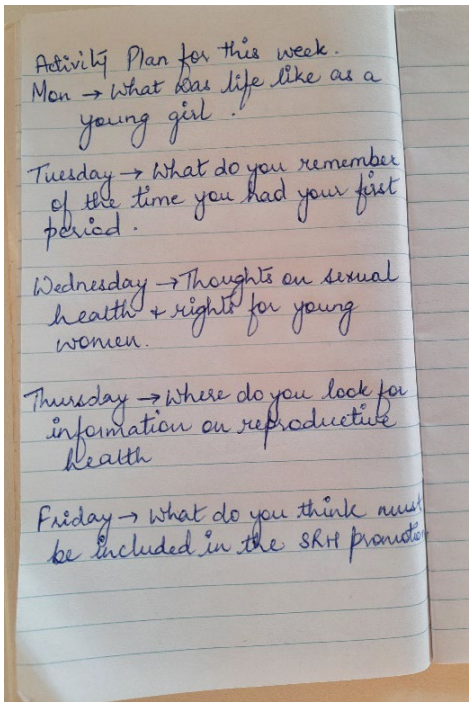
Following a reflection at the end of FGD 2, we decided creating some daily reflection activities would be essential. These would be posted on a WhatsApp group and encourage reflection on the subject (Figure 3.5.). This meeting mimicked a round-robin share for each stage of the reproductive system. It was conducted according to the daily reflection activity we had set out. We began by sharing our fondest memories as a young girl before menarche, followed by periods, contraception, ovulation, and pregnancy.

FGD 4: Role of the internet in health-seeking behaviour

The meeting consisted of group discussions and group activities to ascertain the role of the internet in our lives. The activities were conducted in pairs, followed by sharing and discussion with the group. Discussions included what we use the internet for, how we use it, and the pros and cons of using the internet for health information. We discussed tools such as websites or apps that we currently use for SRH issues.

Figure 3.4

An example of the daily reflection activity posted on the WhatsApp group between FGDs 2 & 3



FGD 5: Creation of SRH promotion

The meeting consisted of discussions and activities to identify strategies for identified issues. We started by creating a summary of all problems identified in the previous FGDs. We then clubbed concerns with typical streams to assess if the same strategies could address them. This included questioning the number of strategies required to address the issues. Sexual and reproductive health issues were aligned with strategies to create a list of possible internet-based tools that could support the dissemination of SRH promotion. Four possible means, including a Facebook page, a mobile application, a website, and a forum, were debated in pairs. Then, conclusions were presented to the team, where further discussion occurred. We identified a possible example of an internet-based tool suitable to disseminate SRH promotion.

3.5.1.3. Stage 3: Observe

The icebreaker in FGD 1 acted as an eye-opener to our similarities. We noted that we came from different parts of the Indian subcontinent and always thought of our roots as distinct. This activity helped us realise that there were similarities that we shared. Furthermore, it was decided that the suggested venues were ideal, due to childcare facilities being made available. We observed that we had varied understandings of the concepts associated with sexual health, such as contraception and STIs. Furthermore, we all agreed that young women did not fully understand their sexual rights. We attributed it to traditional and cultural norms that lay certain expectations on married women, including engaging in sexual intercourse whenever one's partner desires. We also noted that the daily reflection activity before FGD 3 provided better scaffolding than the previous meeting. It also ensured more meaningful discussions.

We ascertained that the internet supported our health-seeking practices, including information on SRH issues. Therefore, it was plausible to create an internet-based tool for SRH promotion. We identified that a website with a forum embedded within it could be a suitable example of an internet-based tool.

3.5.1.4. Stage 4: Reflect

The primary researcher and co-researchers completed this stage as a team during the field work and as the post-project reflection of individual members. The aim was to identify the achievement of the desired outcomes and assess missing points to action. Additionally, this phase included considerations of the primary researcher and the co-researchers to document their individual experiences.

This section of the exegesis will account the reflection undertaken by the research team

FGD 1: Introduction

The team discussion concluded that FGD 1 was appropriately conducted. Also, the venues chosen allowed the team to place their food orders and get a beverage before the meeting. Since I did not have anyone assisting me in conducting the FGDs, I would be present throughout the session, and we did not need to take unnecessary breaks during the meeting.

FGD 2: Sexual health

In our reflection, we addressed the reluctance to speak on issues relating to sexual health. We considered it best to draw out a daily reflection activity and that myself (as facilitator) would post on the WhatsApp group we had created (Figure 3.5). We thought it might help the meeting flow if we had thought about what we would be discussing.

FGD 3: Reproductive health

Our reflection highlighted that this meeting flowed better. We decided that everyone would reflect on the focus for the next meeting. We also concluded that we were generating good data that would be beneficial for creating SRH promotion.

FGD 4: Role of the internet in health-seeking behaviour

It helped us identify that the internet played a significant role in seeking health information. Therefore, we must choose an internet-based tool to disseminate SRH promotion. We concluded that we had now identified issues with SRH and recognised the role of the internet; thus, we were ready to create an SRH promotion.

FGD 5: Creation of SRH promotion

We began creating SRH promotion for the action areas we identified (Figure 3.6) and simultaneously chose tools for its dissemination. However, we realised that while we had made significant progress in creating SRH promotion, creating the internet-based tool would involve designers and would incur costs. We concluded it would be best to apply for crowdfunding and generate the funds for continuing this project. However, we decided to complete it after finalising my exegesis as it would allow me more time to be involved with fundraising. Two co-researchers expressed interest in becoming administrators for the forum along with myself.

Figure 3.5

Action areas identified by the research team

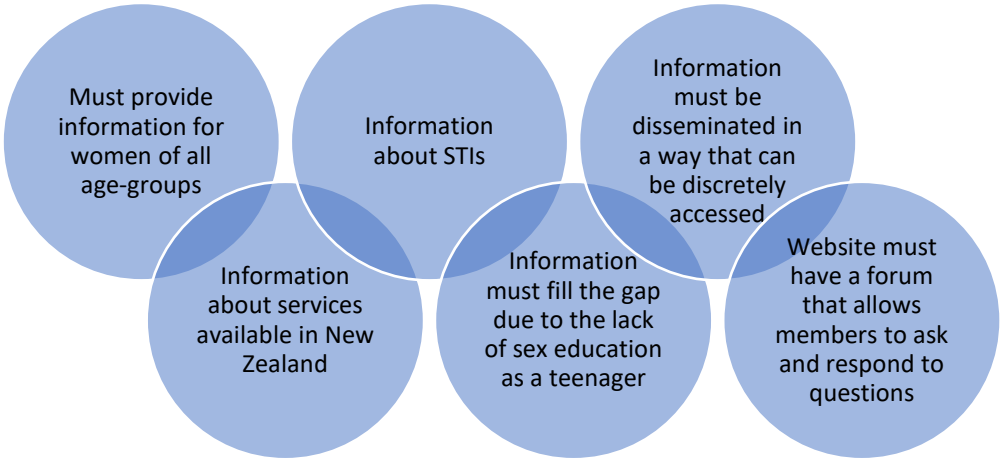
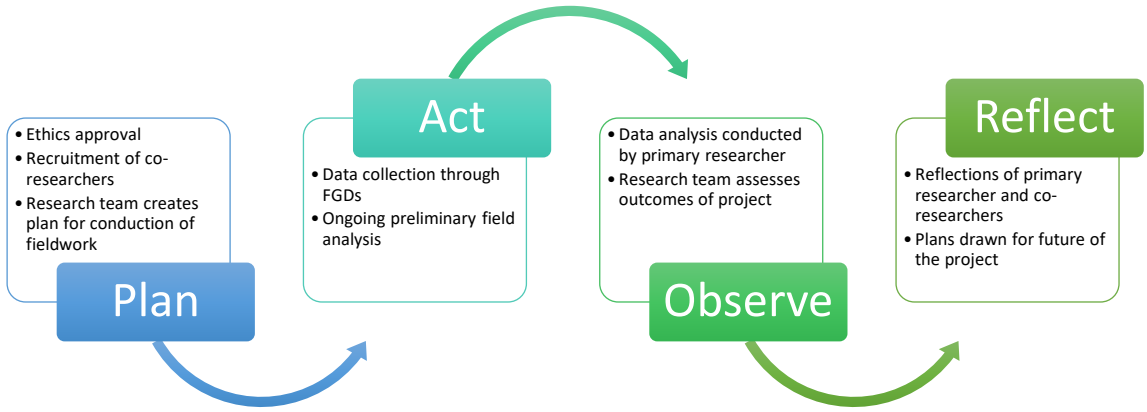


Figure 3.6

The cycle conducted during the fieldwork based on Kemmis et al. (2016)



3.6. Data analysis

The data analysis for the project was conducted across two stages. The first stage was completed with the co-researchers and involved a field-level analysis. The second stage was conducted by me and applied a more thorough investigation. It highlighted the voices of the co-researchers and corroborated the findings from the field level analysis. The second stage of data analysis concluded with a reflection exercise by the research team.

3.6.1. First stage of the data analysis

Initial data analysis was integrated with FGDs and involved all participants. At the end of FGDs, there was a discussion and summation of what was covered, which essentially involved pulling out key themes. This field-level analysis at the end of each FGD was conducted to assess the progress of the project. On-going stop checks at the end of each focus group allow the team to evaluate if their objectives are satisfied (Kemmis et al., 2016; Stewart et al., 2007).

At the beginning of each meeting, I summarised the discussions from the previously conducted FGDs. While PAR processes prescribe that analysis is undertaken with co-

researchers, it is usual for the primary researcher as the facilitator to summarise the information before sharing it. The rationale for the same was that there had been a gap between sessions, and a refresher supports better discussions (O.Nyumba et al., 2018). Following all the FGDs, we collaborated on the summaries previously created and identified the themes from the data that we had generated. This analysis provided the foundation for identifying codes in the second stage of the data analysis.

3.6.2. Second stage of the data analysis

This stage was conducted to highlight the co-researchers' voices and corroborate the findings from the field. I began the thematic analysis with familiarisation of the data. It included the field level summaries and themes created with the co-researchers and the transcribed voice recordings. The data analysis used Braun and Clarke's reflexive thematic analysis following the inductive, semantic, and realist way (Braun et al., 2019). Data analysis within PAR differs from traditional methods as it is collaborative, contextual, and reflective (Baum et al., 2006). Thematic analysis is an all-rounded method, not dependent on a particular epistemology or methodology (Braun & Clarke, 2006). The thematic analysis also allows for relationships between themes and consideration of their context to the whole research project (Alhojailan, 2012). Hence, it was appropriate for this project.

I used coloured highlighters to sort through the data which was then placed into quotes and themes using a thematic log in Microsoft Excel. Excel was chosen as it allowed the creation of multiple spreadsheets that could be labelled and could contain large amounts of data. The funnelling of themes helped to identify the recurring themes.

Following data analysis, I conducted a reflection exercise. This exercise involves a reflection on one's experience of performing an activity. I choose to complete it as the processes involved in PAR research are as important as the research outcomes (McKeown et al., 2015). The co-researchers were invited to do the same. Three co-researchers completed this reflection that provided context to themes generated through the analysis. In preparation to create the SRH framework, I also conducted a reflexive thinking exercise that enabled me to consider aspects that were important to the project and the effect they had on the outcomes.

3.7. Conclusion

The research paradigm chosen supported the creation of a safe space for young women diaspora from the Indian subcontinent to create SRH promotion. Participatory methods promoted the sense of engagement among the research team and exposed team members to collaborative research. Furthermore, feminism enabled young women to become aware of the lack of sexual rights while allowing the desire for greater control over decision making concerning SRH.

While this chapter has explained the methodological and theoretical underpinnings for the project, the following three chapters will discuss the new knowledge the project generated. The discussion of the knowledge generated will draw epistemological threads of subjectivism and feminism. Furthermore, the methodological and theoretical underpinnings discussed in this chapter will inform the creation of an SRH promotion framework.

Chapter 4: Views and perspectives of young women from the Indian subcontinent living in New Zealand about SRH info and advocacy

4.1 Introduction

The next three chapters provide a critical commentary across the three sub-research questions, starting from the findings associated with the views and perspectives of

young women about SRH; moving to the co-creation process that was undertaken during the study; and, finally, to the third sub-question, on co-created ideas for internet-based SRH promotion. From this process of co-creation, I, as primary researcher, developed a SRH internet-based framework or model that will be presented and discussed at the end of each of the Chapters 4, 5, and 6, representing the knowledge and ideas gained from each research sub-question. The concluding Chapter 7 will explain the implications of this framework for SRH policy and practice.

While the preliminary analysis was conducted on an ongoing basis and finalised at the end of each focus group meeting, further work used a thematic analysis approach. I then conducted a second stage of analysis to synthesise the ideas and highlight the voices of the co-researchers. Three themes emerged as significant and recurring:

1. Lack of sexual health discourse
2. Improving reproductive health outcomes
3. Desire to have control and shape their access to SRH information and outcomes.

Each theme had sub-themes that describe and explain the themes (see Table 4).

As previously mentioned, data analysis was conducted with a strong emphasis on participant voice. Therefore, the sections below present our voices as coresearchers (presented as italicised text) and drawing from my experiences of SRH practice and knowledge of the literature. Being an insider to the participant group, I will represent our collective experiences using pronouns such as we and us. In sections where only the voices of the co-researchers have been presented, pronouns such as they and them will be used.

Table 4

Themes and subthemes that emerged from the data analysis

Theme	Subthemes
1. Lack of sexual health discourse	Sex education and sources of SRH information STIs Discomfort in talking about sex
2. Improving reproductive health outcomes	Menarche and periods Pregnancy Ovulation and contraception
3. Desire for greater control and access	The role of the internet and decision making Contraception Sexual rights

4.2. Theme 1: Lack of sexual health discourse

The reluctance to speak on sexual health when the floor became open at the beginning of the FGD, emphasised the taboo nature of the subject. I quickly realised that I had anticipated this situation because I, too, had similar experiences. So, donning the hat of primary researcher, I reminded the team that this was a safe space and there was no judgement of each other. I explained why I believed it was important that we all had open conversations on matters of SRH. This was followed by a round robin activity that asked everyone what came to mind when they thought of sexual health. Elisha said, *"I think it relates to whether I feel like having sex or not. And whether I would like to use contraception or not"*. Kavya added, *"I agree with her. I think sexual health relates to sexual intercourse"*. Bridget commented, *"I can't really think of anything right now. The only word that comes to mind is sex"*. Following this activity, the team gradually began to feel less reluctant to speak on SRH issues. Increased conversations on taboo issues, especially with communities that have experienced traditional and

cultural restrictions, is important to normalise such conversations (Chakraborty & Thakurata, 2013; Das & Rao, 2019; Lee & Lee, 2019; Mahajan et al., 2013). Normalising such conversations can reduce the taboo (Maibvisira, 2018).

Some important aspects that were identified included sex education, STIs, the reluctance to discuss sexual matters with one's partner and other women, sexual rights, and contraception. Studies show that sexual health discourse is vital to reducing the taboo that surrounds SRH (Bhatt, 2018) and could include women discussing sexual health concerns with others, including other women. Sex education is the first form of health promotion and may be the first time girls hear about the topic. If conducted well, sex education could help young girls understand the changes in their bodies and consider the choices that being reproductively active present (O'Sullivan et al., 2019). Informed women make better choices about contraception and sexual consent (Cooper & Gordon, 2015).

4.2.1. Sex education and sources of SRH information

Sex education in the Indian subcontinent is poor. Many large states in India have opposed sex education being taught in school on account of the belief that it is a Western concept and will promote promiscuity in schools (Beck et al., 2005; O'Sullivan et al., 2019). Parents and teachers are known to avoid the responsibility of contributing to a positive sexual health discourse; and, indeed, reinforce the social taboo around the topic (Nadeem et al., 2021). Such a finding was not unexpected in this project, given that no group member had received sex education.

Under these contextual circumstances, it is also unlikely that the young women diaspora would have discussed matters of SRH with each other (Chakraborty &

Thakurata, 2013; Mahajan et al., 2013). My previous experiences discussing matters of SRH have resulted in me being called “too forward”, “acting like a foreigner”, or “not very cultured”. While I did not receive any sex education in school, I went on to study the medical sciences. Clinical practice also equipped me with the skills to engage with my patients and others on SRH issues with ease. However, for many young women diaspora that may not be the case. Migrating to New Zealand can result in a lack of close friendships or the presence of a female sibling that may have been someone with whom to discretely discuss SRH concerns. Being unfamiliar with those around them, may prevent them having conversations on SRH related issues. Kavya stated, *“Actually it’s so hard to talk to someone about it because you don’t know if they are comfortable to even talk about it”*. The lack of conversations about SRH can leave young women turning towards the internet to gather information and feeling lonely and without support when sometimes having to face difficult decisions.

During the discussion about sex education, it became clear that none of the young women had received any sex education—either in school or at home. Kavya said, *“I also did not have any sex education in school. Whatever I know it’s come from experience only. Also, my mom never talked to me about these things”*. Donna added,

> *I did not have any proper sex education in school. We only had one session where girls were separated from the boys, and then one of the ex-students from our school came to give a talk. And no one asked any questions because he was a guy*.

Vahini mentioned that she learnt all she knows through experiencing a sexually active relationship with her boyfriend – *“I learnt almost everything I know after coming to*

New Zealand. So, I had come to do my bachelors, so I was quite young. I learnt a lot of stuff from my friends and my first boyfriend".

Additionally, we grew up in times when the internet was not easily accessible and two of us engaged in sexual intercourse before receiving any SRH promotion. While culturally, the responsibility of providing some sex education would fall on the mother, it is not being provided due to the awkwardness of the conversation (O'Sullivan et al., 2019). Many young women would be told on the day of their marriage that they will understand everything on their wedding night. This could be one of the few times a reference is made to SRH between a mother and her daughter (Das & Rao, 2019; Mahajan et al., 2013; O'Sullivan et al., 2019)

All the young women on the research team stated they received no or poor sex education from their mothers. Donna stated,

> *Yes, I know what you mean. My mom had 'the talk' with me after about 3 years after I started having sex. So, I had to sit there and pretend I knew nothing about what she was talking to me. Cause that was the respectful thing to do. But then also, I don't think she felt very comfortable. Neither of us looked up and both wished this would be finished soon.*

With the modernisation of society, pre-marital sexual intercourse is becoming more common (Lee & Lee, 2019). Furthermore, when the young women diaspora travel overseas, for instance to New Zealand, the seemingly open culture in the other country can make these women feel out of their depth; as previously discussed, people from the Indian subcontinent place great emphasis on the culture and traditions which have so far been restrictive for SRH issues. Experiencing a paradox of conflicting cultures,

the seemingly open culture in New Zealand, in contrast to the restrictive culture of their homeland, can affect the ability of the young women diaspora to take informed decisions regarding safe and pleasurable sexual relationships, and other decisions for their SRH.

4.2.2. Sexually transmitted infections

The discussions also suggested that there was not much awareness about STIs among women from the Indian subcontinent. Elisha said, *"I don't think a lot of people know about STIs. They probably know about HIV, but not much about the other STIs"*. Andrea added, *"I don't think that women know much about them. Like they don't even know what is an STI and how it can spread"*. This finding is not unexpected since the young women received no sex education. The discussion also highlighted that the lack of sexual health discourse can result in a lack of SRH information. Bridget stated,

> *I think also in school as well as at home, like no one talks about these things to you. So, they have become like a very taboo subject that girls or women will only giggle and talk about very softly. And I think that's not good actually because it doesn't allow the women to get the right information.*

Sex education in schools should include the biological changes occurring at puberty, and tools to ensure safe and pleasurable sexual relationships (Goa State AIDS Control Society, n.d.; Lee & Lee, 2019; O'Sullivan et al., 2019). While the study of biology at school in the Indian subcontinent includes the reproductive system, the teacher themselves often feel uncomfortable. In my experience, it has resulted in the use of analogies such as that of the 'bees and birds' to teach this subject area; further adding to the taboo of SRH issues. Many larger states in India have also banned sex education in schools due to considerations of sex education being considered a Western concept

(Goa State AIDS Control Society, n.d.). The state AIDS control boards have been successful in convincing a handful of state governments to deliver a life skills programme instead after evidencing a decrease in HIV rates following sex education (Goa State AIDS Control Society, n.d.). While this programme covers sex education as part of the curriculum, it is compromised and not ideal in the long run. The lack of honest conversations about SRH that occurs through sex education will result in the continued taboo that surrounds SRH.

4.2.3. Discomfort in talking about sex

The co-researchers were very initially uncomfortable discussing SRH. Because I had been working on this subject for some time, and work in the health field, I knew I had more confidence regarding the topic and, therefore, initially took the lead with the aim of facilitating a discussion which would encourage others to speak. The co-researchers expressed that while it was refreshing to talk about their experiences, it may be their first instance doing so. It was decided that reflection activities be conducted via the WhatsApp group and members were invited to write notes. A daily reflection plan was drawn. Being the facilitator for the group, I posted the day's activity on the group every morning (Figure 3.5, p. 50). This plan encouraged the research team to revisit and reflect upon stages in their reproductive journey. This exercise helped the women open up more. In my experience, having time to reflect and consider one's stance on an issue can help increase ease when conversing about a subject.

One of the members of the research team had an arranged marriage, while others were in sexually active relationships prior to marriage. This difference in sexual experience was not reflected in conversations about sex with their husbands. Kavya said, *"I have had an arranged marriage. So, I and my husband don't talk about sex. It just happens*

when it happens". Elisha mentioned, *"Like me and my husband, we talk about contraception, but I don't think we talked about sex"*. Donna added,

> *In my experiences I have not come across men that are very open to the idea of talking about and discussing sex. Like it has to be a hush hush matter and we cannot sit in our couch and talk to each other about sex. And I think with all these aspects, that sex has been seen in a negative lens. Like it is something dirty. Not something enjoyable.*

While one would expect that the modernisation of societies would have impacted these conversations positively, unfortunately, matters of sexual health have retained the taboo.

Arranged marriages are quite common in the Indian subcontinent. In many instances, couples meet for only a few minutes before the marriage is finalised, while for some they meet on the wedding day itself. While arranged marriages can grow into fruitful relationships, the comfort and openness required to discuss taboo issues like SRH can be lacking. Kavya expressed, *"See I think especially when you have an arranged marriage, which is quite common where we are from, then it takes you a very long time to become comfortable to talk about these things"*. The nature of the relationship is usually a give and take where the husband-and-wife care for each other's needs. Additionally, studies have shown that sexual intercourse may occur only for the purpose of procreation (Chakraborty & Thakurata, 2013; Mahajan et al., 2013). In some instances, especially in the case of joint families, the couple may not have the privacy for sexual intercourse (Mahajan et al., 2013). This of course changes with moving to a new country.

In conclusion, it was apparent that there was a lack of sexual health discourse, including lack of sex education in school or discussion amongst family and friend groups, or even with intimate partners, like husbands. This resonates with research conducted in Pakistan and India that demonstrated the lack of sex education in the region, and the fear and avoidance of the responsibility between the parents and the education system (Nadeem et al., 2021; Tripathi & Sekher, 2013). The group identified the need for information on relationships and sexual health/STIs to move away from this silence and lack of education. A need was identified for information to be made available via the proposed SRH promotion as it provided an avenue to educate the community; therefore, ensuring improved decision making for the young women diaspora.

4.3. Theme 2 – Improving reproductive health outcomes

We agreed that women have varying needs at different stages of their reproductive lives and resolved to restrict our discussions to stages that have already been experienced as young women. This was because we believed that our lived experiences would greatly benefit the outcome of the project. Key topics discussed included menarche and periods, pregnancy, ovulation, and contraception. The discussion was centred on experiences of these aspects and the needs they bring for a young woman. We all agreed that addressing these needs would improve reproductive health outcomes.

4.3.1. Menarche and periods

At the outset we had a round robin, sharing stories of menarche and our experiences during this phase. We had planned daily reflection activities (Figure 3.5, p. 50) and used them to consider our experiences. We began from menarche, as it was the point

of transition into womanhood. As the group facilitator, I aimed to encourage all of us to reflect on our own journeys as women. We decided to go back to that start point as previous FGDs had resulted in us struggling to distance our thoughts from our pregnancy and childbirth stories. Previous evidence highlights that women can struggle with identity as just women after becoming mothers (Laney et al., 2015).

Through the discussions, it was apparent that none of us had any knowledge of the female reproductive system and the significance of menarche at the time. Andrea mentioned,

> *My mom also didn't explain anything. She just said it's normal and will happen for the next 30 years. I was so scared because I thought I will bleed every single day. When it stopped, I thought I am done? Then it came back next month. I didn't know what was happening.*

Bridget went on to share,

> *See when I got my first period, my mom just opened up a Wikipedia page and asked me to read and ask questions. I was too shy to ask anything, so I just read and got it over with. It is funny because my mom was a nurse.*

In my clinical experience, I have found that the lack of understanding of the shifts occurring at menarche can make it difficult for a young girl to navigate the changes in her body. Literature reiterates my experience and shows that the lack of sex education furthers this alienation (Ismail et al., 2015; Lee & Lee, 2019; O'Sullivan et al., 2019; Pedus, 2008).

Furthermore, women from the Indian subcontinent do not openly speak about periods. Elisha pointed out,

we don't call periods - periods. I remember when I lived in the UK, an Indian friend of mine said she has her happy days. And I thought what was that? She explained that she had her periods. That led me to think even though we are all girls, why can't we just say periods?"

Kavya highlighted that conversations about taboo issues can be difficult to start if one is not aware of the other person's stance. *"Actually, it's so hard to talk to someone about it because you don't know if they are comfortable to even talk about it".* She added,

I think most women are comfortable talking about periods. But even then, they will stop at "I have a period." They won't tell other women if they have heavy periods or anything like that. I don't think my mother would be able to tell me about these things".

Previous research has demonstrated that it is important that women can discuss matters of SRH with other women to normalise these conversations (Bhatt, 2018). Normalising conversations about periods will result in women seeking information and care more openly. This reduction in taboo will improve reproductive health outcomes.

Coming-of-age ceremonies associated with menarche are commonly practiced among the southern regions of the Indian subcontinent. In Sri Lanka, they are usually called attain or blossoming parties; in India they are called the half-sari function or *Ritushuddi*. During her first period, the young girl would be kept secluded, especially from male members of the family and friends. It would usually involve her needing to stay inside a room with meals provided in the room. At the end of the customary 10-day period, there would be a ceremony to celebrate her attainment of womanhood and would usually involve the young girl wearing a saree for the first time.

Two of the co-researchers from Sri Lanka and one from India had experienced these ceremonies. Vahini described her confusion about why she needed to stay locked up in a room. "*I still remember my first time. I was like why am I supposed to stay in a room for 10 days. I didn't want to do that".* Kavya expressed how it made her feel vulnerable and expressed her displeasure regarding their conduct, *"We also have it in South India. I also had this function. It was the most embarrassing day of my life. You can't tell anyone what is going on, but you are the centre of this big function".*

While the fanfare surrounding cultural celebrations is enjoyable, the lack of knowledge of the changes occurring at menarche can result in such celebrations increasing a young girl's emotional vulnerability. It can create negative memories for a young girl and could affect her relationship with her SRH. In the long run, it could negatively impact the reproductive health outcomes.

4.3.2. Pregnancy

Four of us had given birth to a child around 12 months prior to the data collection, while one was pregnant. The discussion, therefore, moved to pregnancy stories, including the availability and impressions of services.

The lack of familiarity with the healthcare system can negatively impact the pregnancy experience for immigrant women. Three of us voiced the concern that not being fully aware of the importance of getting a midwife early in the pregnancy journey created a struggle to find one later. Bridget stated,

> *The GP didn't emphasise on how important getting a midwife is and we waited on that. Because it was our first baby, neither my husband nor me knew how*

important getting a midwife is… So, we waited for another 2 weeks, so by then I was already about eight weeks pregnant. So, by the time I contacted the midwives, a lot of them were already booked up. I must've called like 25 or 30 midwives from which I got in contact with just three. So yeah. I mean if we had more information on that it would have helped really a lot.

When I found out I was pregnant, I began my search for an obstetrician, as that is what I would do in India. My colleagues kept suggesting that I see a midwife immediately. I spent precious time explaining that I did not want to take a twisted route just to save some money. It was only 2-3 weeks later that I understood that the midwives run the maternity system here in New Zealand. The lack of familiarity with the health system can result in serious consequences for the young women diaspora. Literature has shown that familiarity is important to increase access and acceptance of services (Heaslop et al., 2010).

4.3.3. Ovulation and contraception

The discussions highlighted that not all of us knew a lot about ovulation and its relationship with pregnancy and contraception. Elisha mentioned she did not know of the concept until she was trying to conceive.

We are trying for so many months, we were not having kids. And then I spoke to one of my friends and she said, oh, you can just track your ovulation. And then I was like, okay, what's ovulation? So let me Google it.

Kavya quickly pointed out that she did not believe it was important as she conceived despite being in the 'safe period' of her menstrual cycle.

We were in the safe zone. We used contraception but I still got pregnant. So, ovulation is not what we think… it depends on a lot more than if you are just

ovulating. Like if you are ovulating but you are stressed then you probably won't conceive. But if you are happy and even if you are not ovulating, you can get pregnant.

Having trained in the clinical sciences, I had more scientific knowledge on the matter and was able to recognise the inconsistencies in the thoughts of the co-researchers. While this could have been a teaching moment, I chose not to do so as I did not want to tip the scales of power within the group. However, I was not surprised to hear these discussions as neither of us received any formal sex education.

Furthermore, religious and cultural aspects can significantly affect the choices that women make. This is partly due to the burden that women from the Indian subcontinent shoulder regarding the dignity of herself and her family. For instance, when a young woman has pre-marital sex, it would be considered an erosion of values, and that she and her family lose their dignity. Therefore, it would not be considered culturally appropriate to discuss contraception with an unmarried young woman. This may result in a young unmarried woman not accessing contraception with the resultant unwanted pregnancy and less than appropriate measures to terminate it. Donna commented:

And I think also because of the societal norms that pre-marital sex is bad, like a young girl or woman might not talk to her doctor or anyone about contraception. So, she might try practicing the calendar method without having a proper understanding of it and it might go all wrong.

In conclusion, the themes highlighted that there was scope for improvement of reproductive health outcomes. There was a lack of understanding of the menstrual

cycle at menarche and information provided by their mothers, if any, was not sound. Research conducted in India has shown that young girls do not know much about menstruation because their mothers shy away from explaining matters to them (S. Garg & T.; Anand, 2015). There was consensus among the team that there is still a long way to go for society to start frankly talking about periods, as women themselves are unable to talk to each other freely about it. There was also a lack of knowledge about the maternity sector in New Zealand which had a negative impact on the pregnancies and birth stories. An increased awareness of contraception among the young women diaspora from the Indian subcontinent was required. Improvements made in these various facets of reproductive health could result in more positive outcomes.

4.4. Theme 3: Desire for greater control and access

Increasingly, people are becoming more interested in their own health. People demand more from the health system and are increasingly involved in decisions about their health. The presence of the internet and the world wide web have supported this transition. The same was witnessed among the members of the research team. We expressed a desire for greater control over decisions that affect us, including letting go of traditional and cultural practices. There was a sense that we had to stop following these traditions and integrate into the New Zealand society, since we now called it home. Elisha stated, *"See I feel it's important to let go of some of the traditional things, we live here now, we must follow the Kiwi traditions".* Many young women from the Indian subcontinent are keen to let go of traditional practices as they have considered them backwards. Perhaps, this aspect needs to be considered in policy planning where service provisions may be required to support better health outcomes for vulnerable diaspora groups.

4.4.1. The role of the internet and decision making

We identified that the internet is increasingly informing decisions and provides opportunities to have greater control and access. This could be due to the greater ability to have information available at our finger tips. It has also allowed for greater independence and the lack of interference in decision making. Donna stated, "*You don't have to rely on anyone to give you some information about things you don't know. I like that I can just pick my phone and look it up. I don't have to rely on others"* Elisha agreed, saying, *"When you type a question in google, there are different answers to it. Different people, different perspectives".*

Donna also stated, *"we're no longer calling our moms to find out, you know, what contraception should I be using?"* Others agreed that the use of the internet to obtain information has resulted in decreasing need to consult with mothers or other elders. Elisha: "*I just Googled it because I don't want to call and ask my mom".* We described this aspect in a positive light. I think it will pave the way to break some of the shackles of traditional and cultural norms and will be vital in the reduction in taboo of SRH. For instance, if young women can obtain SRH information through an online forum, they will be able to become SRH literate discretely, furthermore, be able to engage with others through internet-based tools, promoting conversations.

Among the research team, most felt the need to forgo some traditions and practices that have contributed to the stigma of SRH issues. Elisha noted,

But you understand the logic. You can't change people's perception, but you can change your perception. You can do whatever you think is logical. The next generation will not suffer. So that you can pass it to your next generation.

A scientific rationale can be witnessed in some traditional and cultural practices, as they were used by leaders to provide health messages. For instance, most traditions in the Indian subcontinent involving menstruation, involved the woman being alienated from the family. While this may appear cruel, many were based around the principle of rest. Additionally, women used folded pieces of cloth to absorb the menstrual discharges. This could lead to soiling of clothes, which would lead to embarrassment for the woman.

These practices further have some symbolism attached. Currently, the symbolism is celebrated without an understanding of the science. With the internet providing young women with the ability to acquire information and engage with other young women globally, there is increased need to understand the science behind the symbolism; therefore, ensuring that the rich knowledge that has been transferred from generation to generation is not lost. This will support the evolution of SRH practice, with greater emphasis on improving decision making.

4.4.2. Contraception

While there seemed to be mixed reactions about the type of contraception among the group, all agreed it was important. Kavya was very vocal in her need for contraception and the fact that it empowered her.

> *I don't agree with you all saying that contraception is not important. It is very important to me. I used it as soon as I got married as I did not want to get pregnant. I got an arm implant now. Having it makes me carefree and I don't have to stress about an unwanted pregnancy.*

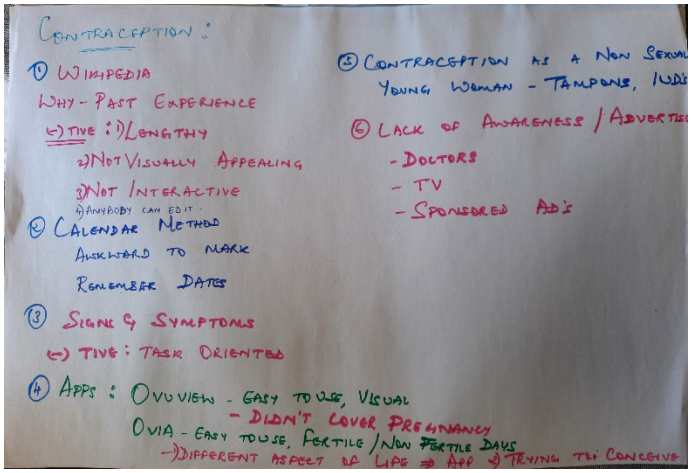
Three others choose to use a natural calendar method as a contraceptive (See Figure 4.1). This was either due to concerns of the seeming side effects of contraceptives or having used it due to premarital sex. It must be noted that in a society such as that in the Indian subcontinent, premarital sex would be frowned upon, and it would be difficult for a young woman to obtain contraceptives. While this may have limited a young woman's choice, the team members felt empowered by their choice to use it. Donna stated, *"I have always used the calendar method from the very beginning. It works for me even now, so I prefer not to take pills".* Andrea added, *"I personally did not use an app or anything when I was trying to get pregnant. I just used to remember the date or mark it on a calendar".* Elisha, however, stated she preferred not to use contraception as she heard it causes weight gain,

> *I only used a contraceptive pill once because I thought I might get pregnant. But someone told me that if you have contraception pills you might gain weight. So, I said I don't need it. I don't want to gain weight. I'm not using it.*

It is important to note at this stage that there are pitfalls to the use of the internet that must be critically considered. For instance, the information obtained by Elisha was based on the anecdotal experiences of others, without evidence to prove it.

Figure 4.1

Example of group work during field study



4.4.3. Sexual rights

We agreed that due to cultural norms that consider it is a wife's duty to ensure all her husband's needs are met; we failed to consider the aspect of consent. Vahini stated,

> *Like most married women believe that they cannot say no to sex. So, on many occasions they are not feeling well, or they are not feeling interested, but they have sex with their husbands because like the belief is that they have to do it.*

Elisha added,

> *I don't think that as a woman and especially as an Indian woman, that I will ever say no to my husband for sex. At the same time, I don't think I would let him know if I wanted to have sex directly. It is not something we talk about.*

I found that the stigmatisation of sexual intercourse in the Indian subcontinent can prevent a young woman from fully expressing her sexual needs. Previous research corroborates this aspect (Das & Rao, 2019).

In traditional societies such as that in the Indian subcontinent, young women may not have the same privileges for pre-marital sex as their male counterparts. Vahini pointed out,

I think the problem is that sex before marriage is so looked down at that no one wants to tell anyone about it. I think young boys might talk about it just to show off in front of other guys. But girls will never open their mouth. Especially growing up in Sri Lanka I could never talk about it.

While being an issue of sexual rights, it is also a public health concern. As previously mentioned, it is highly likely that a young woman will not have access to contraception when engaging in sex before marriage. This is due to the large emphasis placed on virginity during arranged marriages (Shahzad, 2017). Appropriate SRH promotion could sow the seeds for young women to express themselves appropriately to their partners or husbands.

In conclusion, it was clear that we valued the ability to be more involved with health-related decision making. The internet has supported this interest of young people to be involved. The internet also allows gathering of information discretely and in real-time. Moreover, there were varied choices for contraception adopted by the group. Nonetheless, each felt empowered by their choice. There was also consensus amongst the group that cultural norms have shaped our behaviour and attitude towards sexual intercourse, including sexual rights of young women and the ability to consent to sex. Previous literature corroborates the experiences of the group (Mahajan et al., 2013). Furthermore, with a strong emphasis placed on virginity at the time of marriage, it is not uncommon for young women having pre-marital sex to lack access to contraception.

4.5. Developing the framework – Ring 1

The three themes—lack of sexual health discourse, improving reproductive health outcomes, and desire to have control and shape access to SRH information and outcomes—led to a sound generation of knowledge. Although a participant of the study, I am also a practitioner with an intent to build on knowledge for the community of practice. Previous literature has shown that frameworks are beneficial tools in the field of public health (National Public Health Partnership, 2000).

Frameworks provide a strategic approach to planning and are vital in health promotion. Furthermore, they provide users the ability to consider all the factors that interplay in one glance. They differ from a list of recommendations that are usually specific to the context of the research in that frameworks can be modified. For instance, the framework created through this project is based on SRH promotion; however, it could inform the co-creation of health promotion of other subject areas.

Therefore, following a reflection on the data generated from the fieldwork and the process involved, I decided to create a SRH framework that will support policy design and future research in SRH promotion. Furthermore, I am obtaining an academic qualification through this project, and creating this framework provided me the opportunity to demonstrate my skills as a public health researcher.

In keeping with the cyclical nature of PAR and Hindu religious practices, I chose to use a series of rings to demonstrate the building of knowledge. My analogy using the components of a cell also supported my choice of creating a framework that had concentric rings. At the centre of the framework lies the group, young women diaspora of the Indian subcontinent. This mirrors the paradigm of co-creation in which the

researchers and participants (co-researchers) work on a par with each other and work together to bring social change. It differs from traditional expert-led research wherein the generation of information is controlled by the researchers. Participants were also placed at the centre of the framework as young women are increasingly becoming more interested in their own health.

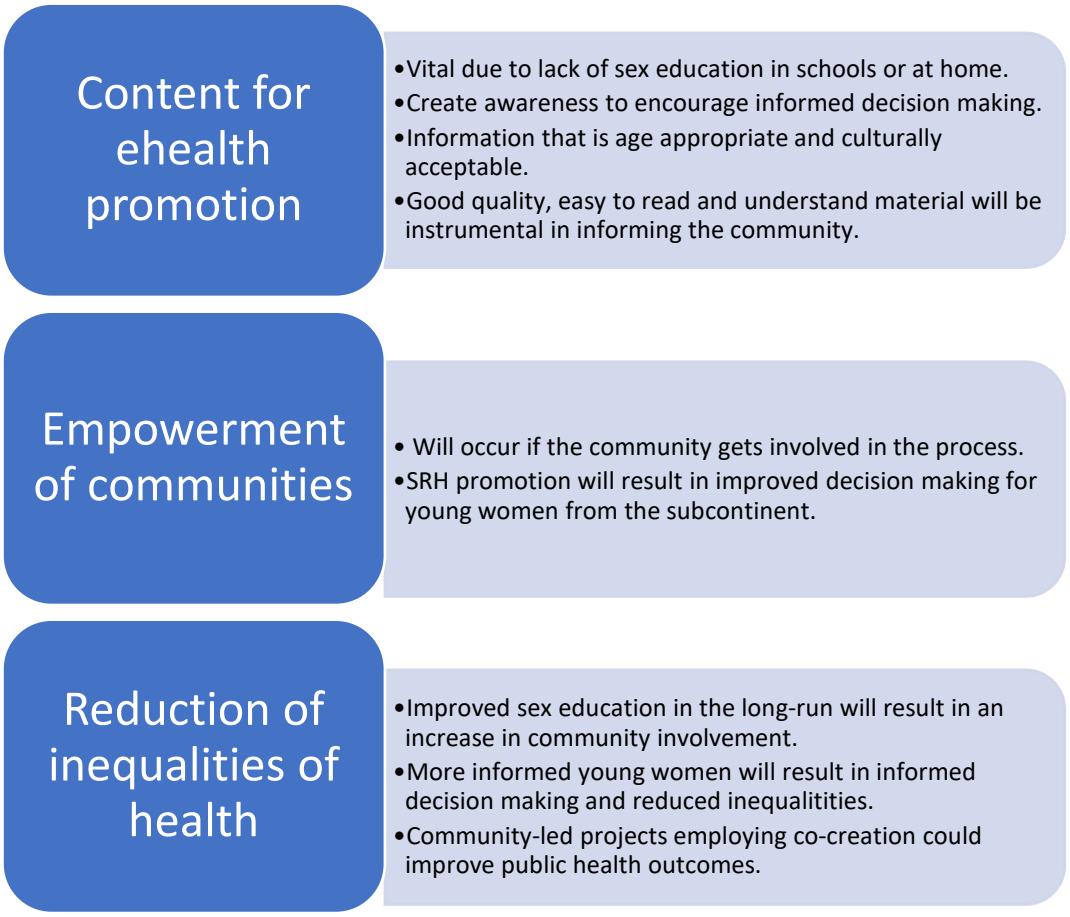
The first ring represents three key areas extrapolated from the themes, as discussed in this chapter, which will act as pillars for the framework. The commonalities which I shared with the group provided me with a unique opportunity to deconstruct the themes further while not misrepresenting their meanings. Therefore, the principles of PAR research were safeguarded while this extrapolation was undertaken after completion of the fieldwork.

The three areas identified include the content for internet-based SRH promotion, empowerment of communities, and reduction of inequalities of health (see Figure 4.2). These areas answered the following questions:

1. What will the health promotion achieve and how will it do so?
2. How will the SRH promotion empower communities?
3. How will empowered communities result in reduced health inequalities?

Figure 4.2

Action areas for the first ring of the framework



This ring of the framework draws on themes identified in the fieldwork process. It draws on the SRH needs of the young women and the aspects that were identified as important through the co-creation process. This ring is important as it will define the contents of the next two rings of this framework. It places young women at the centre of the process and considers how their needs could be met, while empowering them to define solutions from within the community.

Figure 4.3

Ring 1 of the framework

In Chapter 5, I consider how young women could be empowered to co-create SRH promotion. Additionally, I will examine how the project has enabled empowerment among the young women diaspora who participated in the project.

Chapter 5: How can young women from the Indian subcontinent be empowered to co-create internet-based SRH promotion?

5.1 Introduction

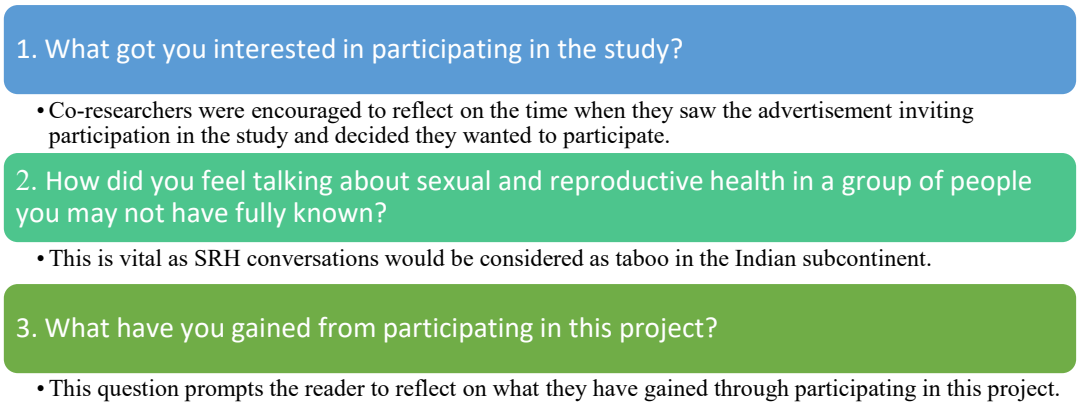
This chapter aims to respond to the second research question for the project. It explores the co-creation research process; what it meant for the research team, including the co-researchers and the primary researcher; and how it influenced the development of an SRH promotion framework.

5.2 Reflections of the co-researchers

The co-researchers were invited to reflect on their experiences of the project. This reflection aims to identify the key aspects of the subject matter that they gained, as well as what they learned about themselves. The co-researchers were invited to participate in this activity by reflecting on three questions (Figure 5.1). These questions were provided to the co-researchers to ensure that they reflected on the stage of recruitment, the conduct of the fieldwork, and the time-period after the fieldwork. They were also provided with an explanation of the expectations of each question to support their reflection.

Figure 5.1

Questions and their expectations provided to the co-researchers to support their reflection



This reflection activity was completed by three of the five co-researchers. Two co-researchers did not complete this activity due to time constraints and prior commitments at the time this reflection was requested.

5.2.1. What got you interested in participating in the study?

The co-researchers expressed interest in the study as it studied the diaspora. Andrea stated, *"I got interested because it is very rare that people want to ask questions or research Sri Lankan people in New Zealand*". Kavya mentioned, "*it's rare to come across a study that is looking at this field and specifically for Indian women"*. Furthermore, participating in the study provided an opportunity to meet other young women diaspora. Andrea stated, *"I thought this would be a good opportunity to meet other like-minded people from our countries and interact with them"*. Such opportunities that result from co-creation projects can provide a platform for the diaspora to develop relationships.

The co-researchers mentioned interest in the project as it was a unique study—SRH would not be generally researched within the subcontinent. Kavya pointed out, "*I am trained in the health sector but it's rare to come across a study that is looking at this field and specifically for Indian women"*. Bridget stated, "*I was interested because it is not common to come across someone studying this specific area"*. In my interactions with the co-researchers during and after each FGD, it became apparent to me that it was the first occasion that they were involved in research in which they shaped the outcome. There was a deep sense of happiness, expressed at the end of each meeting, about how fulfilling this experience was to them. Previous literature corroborates that

giving back to the community through co-creation projects can provide a sense of accomplishment (Füller et al., 2011).

5.2.2. How did you feel talking about sexual and reproductive health in a group of people you may not have fully known?

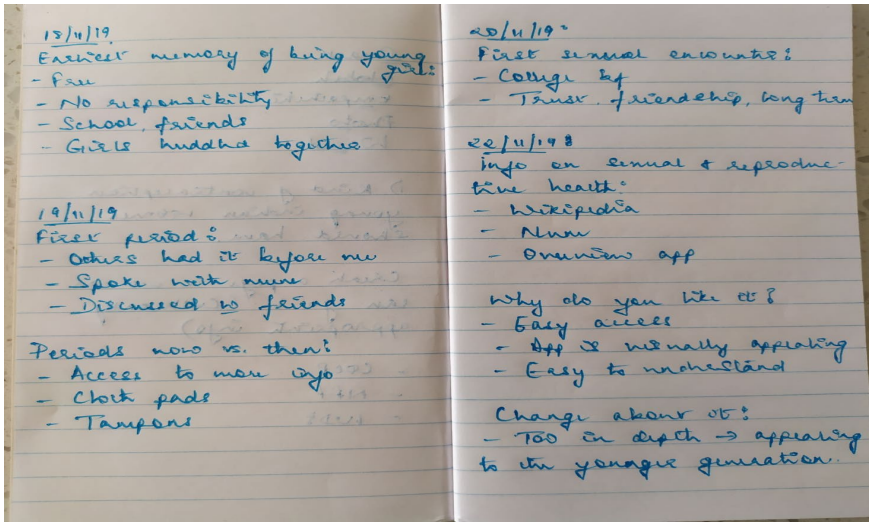
Interestingly, the co-researchers felt relatively comfortable discussing SRH. While all three co-researchers mentioned some concerns about discussing SRH in the beginning, similarities within the group appeared to increase comfort. Andrea stated, *"I was quite surprised how comfortable I felt. We were all a similar age group, there were other mothers in the group. Also, we have very similar customs and things, so it was fun actually"*. Bridget mentioned, *"It was not as uncomfortable as I thought I would be as all of us in the group seemed to be gathering new information or experiences, we had not heard of before".* Kavya pointed out that while the experience was challenging, it was made easier as the research team had similar backgrounds. *"Talking about sexual and reproductive health in a group of people I didn't properly know was a challenge. But the group was made up of people with similar backgrounds, so we could relate."*

On reflecting on the fieldwork, the comfort of discussing SRH issues was greatly increased following our daily reflection activity (Figure 3.5, p. 50). This activity was staggered to allow for an opportunity to reflect on the different stages relating to SRH (Figure 5.2). Sharing our reflections also provided an opportunity to validate our experiences and to find common threads with others. Finding commonalities within the research team can encourage more meaningful engagement and sharing, as well as positively influence the co-creation process. Furthermore, evidence from previous

literature demonstrates the connection between strong engagement and greater investment in PAR (Baum et al., 2006).

Figure 5.2

Extract from the daily reflection notes of a co-researcher who chose to keep notes



Previous research has postulated that increased conversations about SRH issues can reduce its taboo (Bhatt, 2018; Maibvisira, 2018). This was observed in the fieldwork. Discussions on SRH issues broke barriers and gradually the research team felt more at ease. Furthermore, using participatory methods such as co-creation allowed the research team to have more control over the project. The ability to shape the outcome of the research can result in greater ease of discussion.

5.2.3. What have you gained from participating in this project?

The co-researchers expressed a feeling of empowerment from participating in the project. Firstly, there was recognition that they could make a difference. Bridget stated, "*I learnt that even a single person can influence the thinking and amount of knowledge other women around New Zealand can have*". Andrea mentioned, "*I realised that even*

one person can start something, and others will follow". Kavya pointed out, "*I have become a lot more confident asking direct questions on these apps after participating in this project*". Participatory action research has previously been shown to empower participants and create social change (Baum et al., 2006; Dudgeon et al., 2017; Guerin, 2011). While empowerment and societal change were not part of the research question, they provide context for the relevance of such a practice-oriented project and the use of PAR methodology.

Traditional positivist research methods consider that the reality needs to be observed and measured, and is, therefore, focussed purely on the outcomes of research. Furthermore, the participants are considered objects that must be observed, and the researcher would control the outcome of the research and the portrayal of the participants and their experiences. In contrast, PAR methods, consider the participants as "insiders" that share the position of power with the researcher and act as co-researchers rather than participants. Therefore, to enable empowerment, researchers need to share or give up some of the power they hold (Labonté et al., 2008).

Bridget suggested that a better-informed diaspora would facilitate further ease of settling in the new environment – "*The better informed we are, the better equipped we are to deal with something we may come across when living in a different country*". Previous research has demonstrated that better-informed women led to informed decision making (Clark et al., 2016; Lee & Lee, 2019; Metusela et al., 2017). Kavya and Andrea emphasised that the young women diaspora need to engage in discussions on SRH issues. Andrea stated, *"I have learnt that we women need to talk about these things more. Move away from calling periods with all code names and openly talk*

about these matters". As previously mentioned, research has shown that greater openness increases the ease of discussing SRH issues and reduces the taboo surrounding these issues. Additionally, Kavya stated that participating in the project encouraged her to reflect on how she might prepare to address SRH issues with her young daughter in the future.

> *I have a girl child and working on this project made me think about what is it that I have to do differently to ensure that she will not shy upon things like periods and others when her time comes. That I must prepare myself to handle things different to what my mother did*.

She added, "*I have signed up for some apps where I can find other mothers*".

Kavya also pointed out that she was interested in pursuing a master's qualification. Participating in this project had further cemented that plan. I view this as an excellent outcome of participating in this project. The co-researchers' reflections also demonstrate that co-creation methods can have lasting impacts on communities and result in greater sustainable outcomes. Buy-in is vital to ensure the project and its outcomes are sustainable. My interactions with the co-researchers at the end of each FGD made it apparent that young women are interested in creating societal and social change.

5.3. Reflections of the primary researcher

The reflective thinking process is an essential component of qualitative research as it provides an opportunity for the researcher to reflect on the data collection process and the findings (Greenhalgh et al., 2020). It also provides an opportunity to consider factors that may have influenced the findings either positively or negatively. My reflections emphasise the factors that affected the co-creation process and explain the

impact they had on the process. Key areas that I will be discussing include the venue setting, the make-up of the group, as well as challenges that were encountered in the co-creation process. These aspects were selected for my reflections, as in PAR the processes involved in the data collection are as important as the outcome (Kemmis et al., 2016).

5.3.1. The venue setting

I used snowballing for data collection. This meant that some young women were known to one another while others were not. I observed that familiar group members would pick adjoining chairs. Given the sit-down restaurant environments used for the FGDs, it meant that there was no large mixing and mingling within the group. While this aspect did not adversely affect the project, existing nuances between participants may not have been captured.

Furthermore, a restaurant or cafe environment might not allow for using tools and materials that can facilitate co-creation; for instance, drawing or creating mind maps. Both venues had formal sit-down arrangements, that were well spaced and allowed for good eye contact. Non-verbal cues can greatly improve the quality of a conversation. Facing one another also allowed for appropriately reading body language which could significantly influence co-creation projects, when participants are not familiar with all members of the research team prior to commencement of the project. While the venue setting is a very important aspect of the data collection, I placed a higher value on the availability of free childcare facilities available at Sylvia Park and St Lukes malls. Most of the team members had young children and having this facility ensured attendance and attention.

5.3.2. Discussing taboo issues

Considering that sexual health can be a taboo topic within the participant communities, it would have been better suited to place the FGD on sexual health after the one on reproductive health. It would mean that we moved along subjects increasing in taboo. Previous research has identified that discussing topics in the order of ease, moving from less taboo to more, can result in more effective discussions (Culley et al., 2007). The impromptu icebreaker I organised, encouraging women to talk about sex, perhaps enabled some reduction in the reluctance to talk about sexual health (Maibvisira, 2014).

When I observed the reluctance to discuss SRH issues, I was concerned that this aspect might impact the data collection and co-creation of SRH promotion. I raised this concern with the group, and we made the decision to create a WhatsApp group and post a reflection activity everyday (Figures 4.1, p 50 and 5.2, p 87). The activity included reflecting on periods of their reproductive lives such as the time before menarche, adolescence, and then young womanhood. I believe this activity served three purposes. First, it helped all of us think of ourselves as women first and delineate ourselves from being mothers. Elisha mentioned, *"Some different kind of girl time. I enjoyed this"*. Kavya added, *"Yeah, it was nice to talk about ourselves for once, otherwise it's always about the kids"*. As previously mentioned, women can struggle to separate their roles as women and mothers (Laney et al., 2015). Second, listening to each member's reflections on aspects from their childhood and young adulthood led to the members getting to know each other better. Third, it ensured that we were all a little more prepared for the meeting. Previous research has demonstrated the link

between preparedness for a focus group and improved quality of discussions (Sim & Waterfield, 2019).

5.3.3. Heterogeneity versus homogeneity of the research team

While all the project team members were young women, differences existed between them and their individual journeys. These differences included their employment and educational status; reproductive status; differences in cultures, traditions, and religions, among others. Available literature points out that aspects such as religion, coupled with traditions and cultural practices, would have shaped the young women's perspectives (Chakraborty & Thakurata, 2013; Elam & Fenton, 2003). While there is contrasting evidence of the pros and cons of heterogeneity versus homogeneity within the participant group, the heterogeneity of our research team ensured it was diverse and there were different lived experiences to share. This aspect ensured that the artefact that would be co-created through this project would be relevant to women from different backgrounds. It is vital to address the debate of heterogeneity versus homogeneity at the beginning of the co-creation project as it can significantly impact the outcomes of the co-creation process.

5.3.4. Challenges that could be encountered in PAR

In traditional settings, the researcher is distanced from the process and the participants are a means of obtaining data (Kemmis et al., 2016; Krueger & Casey, 2015; Stewart et al., 2007). The key variance of FGDs using PAR processes, in contrast to traditional FGDs, is the primary researcher and participants as co-researchers would jointly make decisions. These include the processes of data collection, analysis, and presentation of the data.

Participating in this project was the first time the co-researchers were experiencing PAR. Therefore, initially, they were holding back as they did not expect that they could shape outcomes for the community. However, as the FGDs progressed, they began to increase in confidence and could envision how they could influence the creation of health promotion. Furthermore, the co-researchers struggled to accept ownership of the project. However, in the final FGD, two of them agreed that when the website would be created, they would volunteer as administrators for the forum. These aspects are important as buy-in from the co-researchers is vital for favourable outcomes when using co-creation methods.

5.3.5. Change of roles from traditional design processes

Another challenge encountered in the fieldwork journey was the change of roles in the design process. Traditionally, the primary researcher would gather data from participants, analyse them, and forward them to a designer who would be involved with the completion of the design processes. The co-creation process obscures the boundaries between these three roles, making the primary researcher and co-researchers actively involved in the job descriptions of all the three roles (Sanders & Stappers, 2008). While significant efforts have gone into literature explaining PAR processes, further research is required into previously defined boundaries of each of these roles. There is also a growing shift in the emphasis from the traditional context that one must be a qualified designer to design health promotion (Westin & Salén, 2019).

The growing use of the internet and people's interest in their health has led to an increase in prosumer projects. This includes the growing presence of "Influencers" and "Youtubers" who disseminate or promote health information. While there have been concerns raised on the lack of quality control for this spreading of information, public health organisations must engage with such social media "celebrities" to ensure that good quality information is provided to the community. This method of creation of health promotion is informal, quick to produce, and usually involves a description of the Influencer's or Youtuber's experiences. Co-creation projects aiming to create health promotion will follow similar principles for the creation and dissemination of health promotion information.

5.3.6. Impact of being an "insider" in the research team

I take this opportunity to apply reflexivity to examine the impact being an insider might have had on the project. I shared similarities of race, ethnicity, and culture with the co-researchers; however, there were differences. While I also did not receive sex education at home or school, I grew up with friends and family where references to SRH issues were not frowned upon. For instance, I regularly asked my father to buy sanitary pads for me. Other co-researchers may not have had the same experience. Furthermore, I trained in homeopathic medicine, which allowed me to have a comprehensive understanding of SRH issues. I have also been a tutor in the medical sciences for the duration of this project.

The most prominent issue I experienced when using PAR processes was giving up being in control of the research study. It was my first experience using PAR processes and I was mindful of influencing the group in a larger capacity than that of a co-

researcher. Furthermore, being a practitioner and tutor, I made a conscious effort to refrain from assumptions that I may be more knowledgeable on SRH issues or to use every opportunity to teach the others to increase their knowledge.

5.4. Conclusion

The reflections of the research team highlighted that the project has created a strong foundational basis for the co-creation of SRH promotion. However, it is important to note that PAR processes involve action cycles aiming to bring about social change. While significant progress was made on empowering the young women diaspora to co-create SRH promotion, more work is required for the co-creation process to achieve favourable outcomes. The knowledge gained through the reflections in this chapter will inform the creation of the third circle of the proposed framework. This circle will relate to the processes involved in the co-creation and empowerment of the young women diaspora to create SRH promotion to inform policy and practice.

5.5. Developing the framework – Ring 2

In developing this ring of the framework, I consider the processes involved in co-creation of internet-based SRH promotion and the outcomes that can be achieved by these processes. The action areas identified for this ring, draw on Ring 1 and explain how each of the central themes can be achieved (see Figure 5.3).

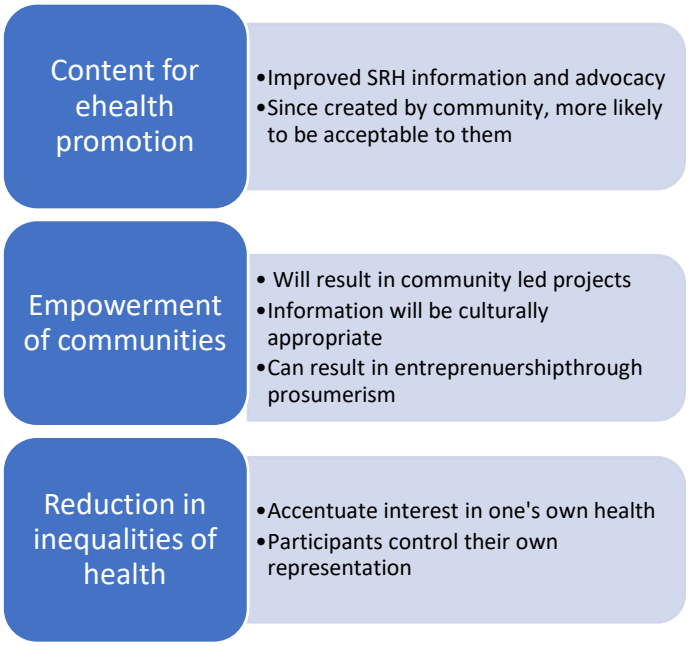
This ring raised the following questions:

1. How can co-creation support the development of content for internet-based SRH promotion?
2. How can communities be empowered by co-creation and what may result from this process?

3. How can co-creation methods reduce inequalities in health?

Figure 5.3

Action areas for the second ring of the framework



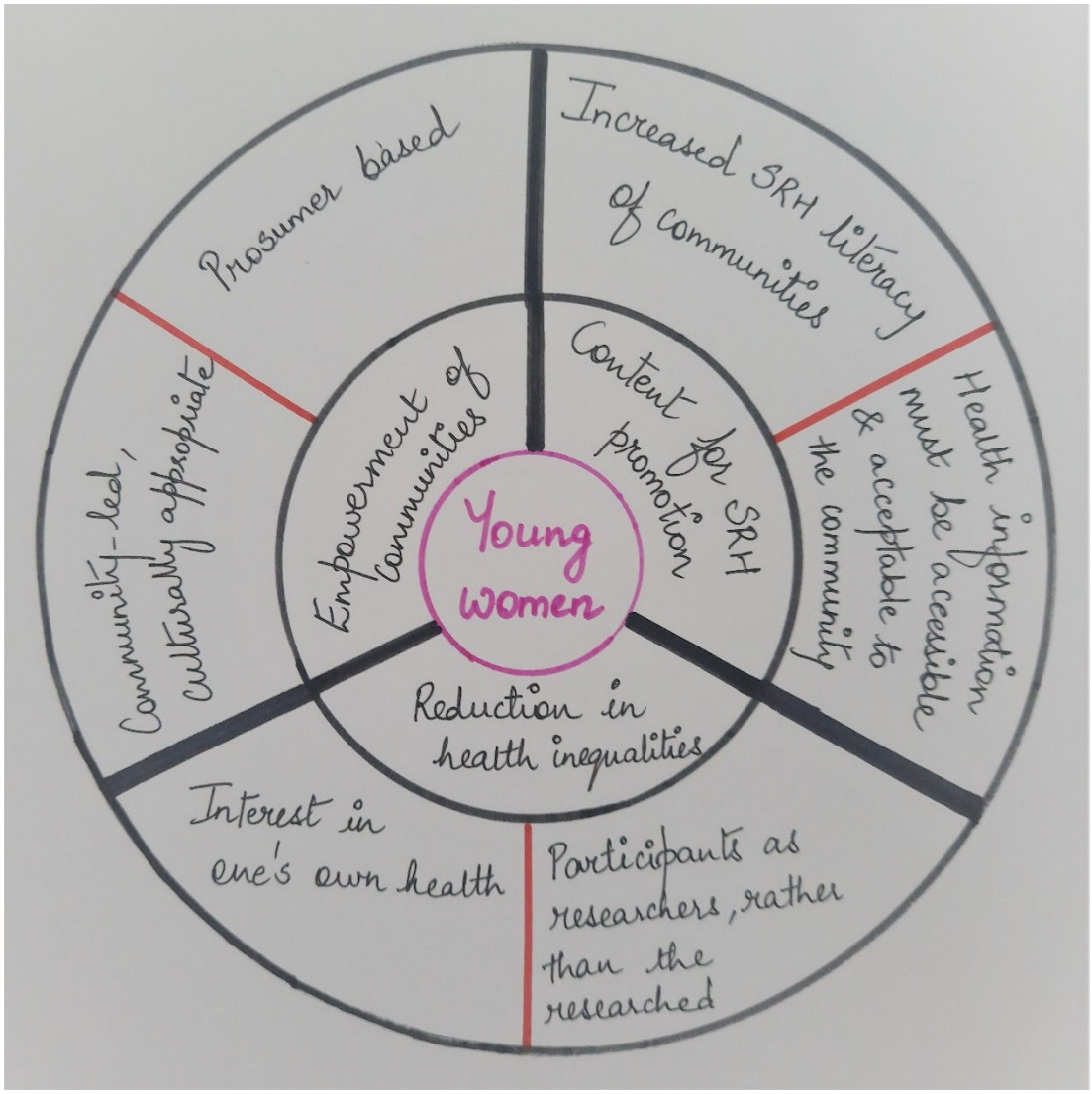
The action areas identified through this ring, extrapolate from the themes drawn out in Ring 1 to identify factors for Ring 2 (See Figure 5.4). This ring identifies how young women could be empowered to co-create health promotion. This includes measures and outcomes of those measures that will further support the co-creation of SRH promotion. For instance, the young women's interest in their own health could be utilised to enable them to engage in participatory research. Being researchers rather than the researched, allows them the ability to have a voice, previously lacking for young women diasporas from the Indian Subcontinent.

Furthermore, being SRH literate will allow them to successfully participate in co-creation-based prosumer projects which can lead to empowerment of the community.

The utilisation of such culturally appropriate prosumer projects by the community can result in a reduction in health inequalities for young women within the community.

Figure 5.4

Ring 2 of the framework



While this chapter describes how young women diaspora could be empowered to co-create SRH promotion, chapter 6 will describe what tools/ideas emerged from the co-creative process.

Chapter 6: What ideas and tools for internet-based SRH promotion emerged from the co-creation approach?

6.1 Introduction

This chapter aims to respond to the third research sub-question for this project. It explores the ideas and tools that emerged for the creation of internet-based SRH promotion. We identified that there were significant concerns for young women diaspora from the Indian subcontinent relating to their SRH needs. These have been discussed in Chapter 4, while in Chapter 5 we discussed the co-creation process. This current chapter will draw on that knowledge and process discussion to explain the rationale for the ideas and tools that emerged from the co-creation process. The chapter will also describe the final ring of the framework and demonstrate its relationship with the former rings.

6.2 Co-creation of SRH promotion

Given the cyclical nature of PAR and the stages involved in PAR processes, it was identified that this project should adopt a staged approach. This is likely to be the case for any co-creation process. However, the finalisation of these strategies and the creation of a tool or tools to disseminate the SRH promotion would require more funding. We identified that it would be appropriate to do additional work and we paused the project at the strategy creation phase.

6.3 Use of the internet for fulfilling health needs

We identified that all of us used the internet to seek health-related information. Everyone agreed that the internet provided real-time information rather than contacting family in their hometowns who were in different time zones. Donna stated, *"We spend lots of time on the internet, but is because increasingly, we're no longer calling our moms to find out about stuff… it's just easier. Cause I don't have to think about what*

time it is there". Elisha added, "*I don't want to call and ask my mom about everything in my pregnancy, otherwise she'll be tensed"*. Literature highlights that digitally savvy generations are increasingly more reliant on the internet (Kumari & Bharti, 2021; O'Sullivan et al., 2019).

Furthermore, we expressed our comfort using the internet to seek SRH related information as the whole process is discrete. Donna stated, *"So one of the positives of it is that a person can read it in their personal space and own privacy and whatever they share they don't even need to write their names"*. My experience during my clinical practice has shown that women are more likely to use the internet to research their symptoms before visiting a doctor. This shows that women are likely to seek SRH related information via the internet to fulfil their health-related needs. Previous literature has demonstrated a relationship between better-informed communities and improved decision making (Clark et al., 2016). However, we identified that currently, young women diasporas must access multiple internet-based tools, including websites and mobile applications, to access information. This may be due to the lack of websites being age or culturally appropriate, and the lack of verifiability of advice and information. Donna stated, *"I like using the internet to get information, but it is quite troublesome to go around so many websites to find all the information"*. Elisha added, *"Yes, I agree. Also, it's a problem 'cause you can get conflicting information, it's hard to tell what to believe"*. Vahini seconded, *"Yes, that is so true"*.

While for each internet-based tool creators have a particular target audience, it leads to a time-consuming process to sieve through information. Furthermore, young women diaspora may not be able to differentiate between primary and tertiary sources of

information. For instance, during our discussion on this subject area, Elisha mentioned, *"But because it was a planned baby, I had already looked on Ministry of Health website. It gave me all the information. For this trimester ... And once the baby is born..."*. Donna questioned why she specifically chose the Ministry of Health website. Elisha responded, "*Because that's a government organisation and the government will provide all the updated news and information"*. While Elisha was aware that the Ministry of Health was a primary source, not all young women diaspora may have this awareness. It is also important to note that information on the Ministry of Health website would be targeted to a wider audience and may not be age appropriate or culturally acceptable. This may lead young women diaspora to tertiary sources such as blogs, wherein the information available may not have been verified. The same concerns exist for social media platforms such as Instagram and Twitter.

6.4 Co-creation of a tool

Having identified the concerns that may exist for young women diaspora, we decided to create appropriate strategies to reduce their impact. These included identifying strategies as well as tools that would support the implementation of such strategies. While this activity was conducted as part of the fieldwork, I created Table 5 to formalise and present some of the discussions.

Strategies were designed to ensure that the young women diaspora could have a safe platform from which they could gain health literacy, engage with other women so that they could **advocate** for and **enable** each other (World Health Organization, n.d.). These actions, coupled with **mediation** from appropriate authorities such as the Government, Ministry of Health, and community groups, could result in improved

outcomes for young women diaspora from the Indian subcontinent (World Health Organization, n.d.).

Table 5

Strategies identified by the young women diaspora for co-creation of internet-based SRH promotion

Problem identified	Proposed strategies	How they will be accomplished
Lack of sex education and early SRH promotion	Creation of SRH promotion, disseminated via the website	Provide information that is age-appropriate and culturally acceptable.
Minimal knowledge on STIs, contraception, etc.	Creation of SRH promotion, disseminated via the website	Include information about the importance of contraception, STIs, etc., the services available and how to access them.
Women do not feel comfortable talking about SRH	Encourage sexual health discourse via dissemination of information on the website and interactions on the forum	Create a space that is safe, discrete, and culturally appropriate. The tool should accommodate the ability of members to interact with material as well as with each other.
Lack of knowledge about the New Zealand healthcare system	Increase familiarity with the healthcare system	Tool to have a comprehensive description of the healthcare system, especially information on maternity services.
Women currently must access multiple websites as sources for gathering SRH knowledge	Create a tool that is inclusive and addresses the SRH needs of women of all age-groups	Tool to be comprehensive and must act as a "one-stop-shop" as well as being a trusted verifiable source.

We also discussed what would be our preferred tool to disseminate the SRH promotion. It was decided that the tool would have to be internet-based to support maximum reach. Deliberations included a mobile app, a website, a Facebook page, and a forum (See Figures 6.1, 6.2 and 6.3).

Figure 6.1

Example of mind mapping completed by Pair 1 during fieldwork

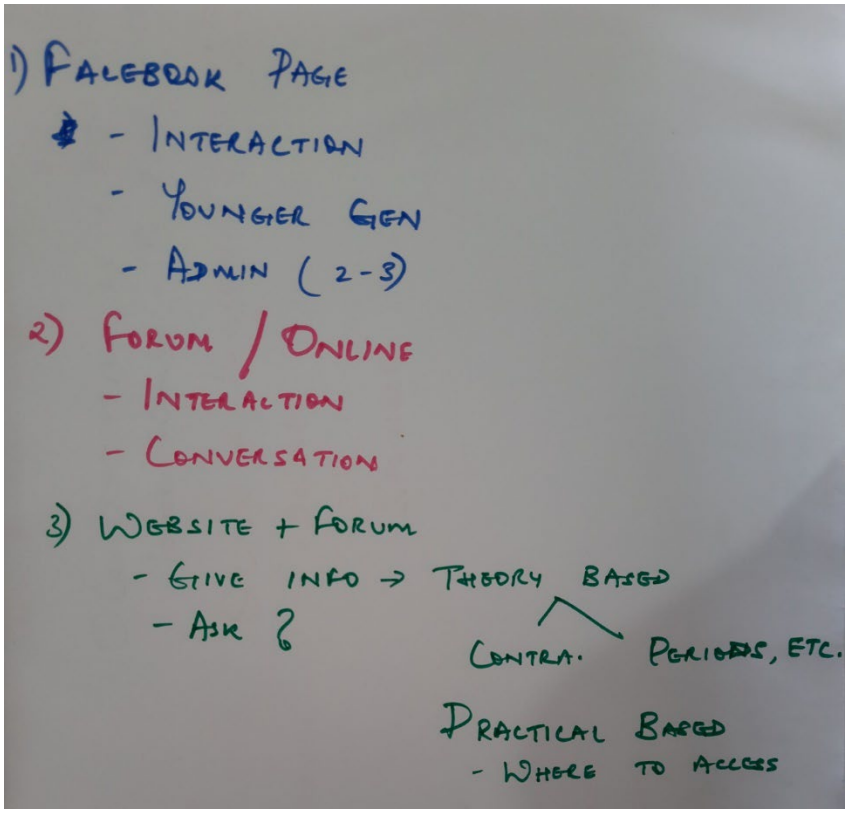


Figure 6.2

Example of mind mapping completed by Pair 2 during fieldwork

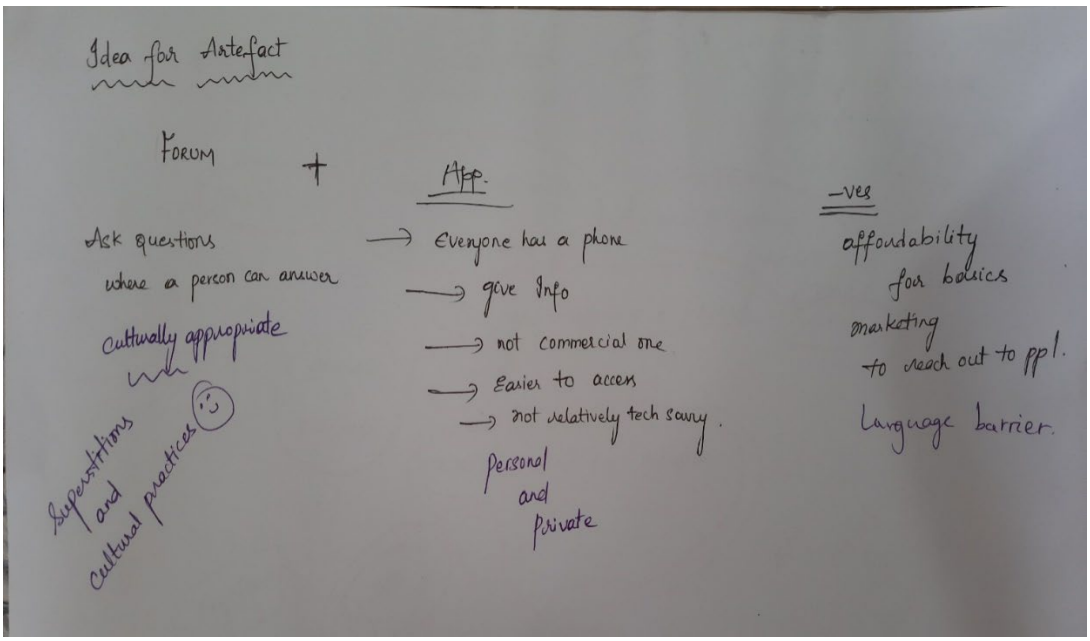
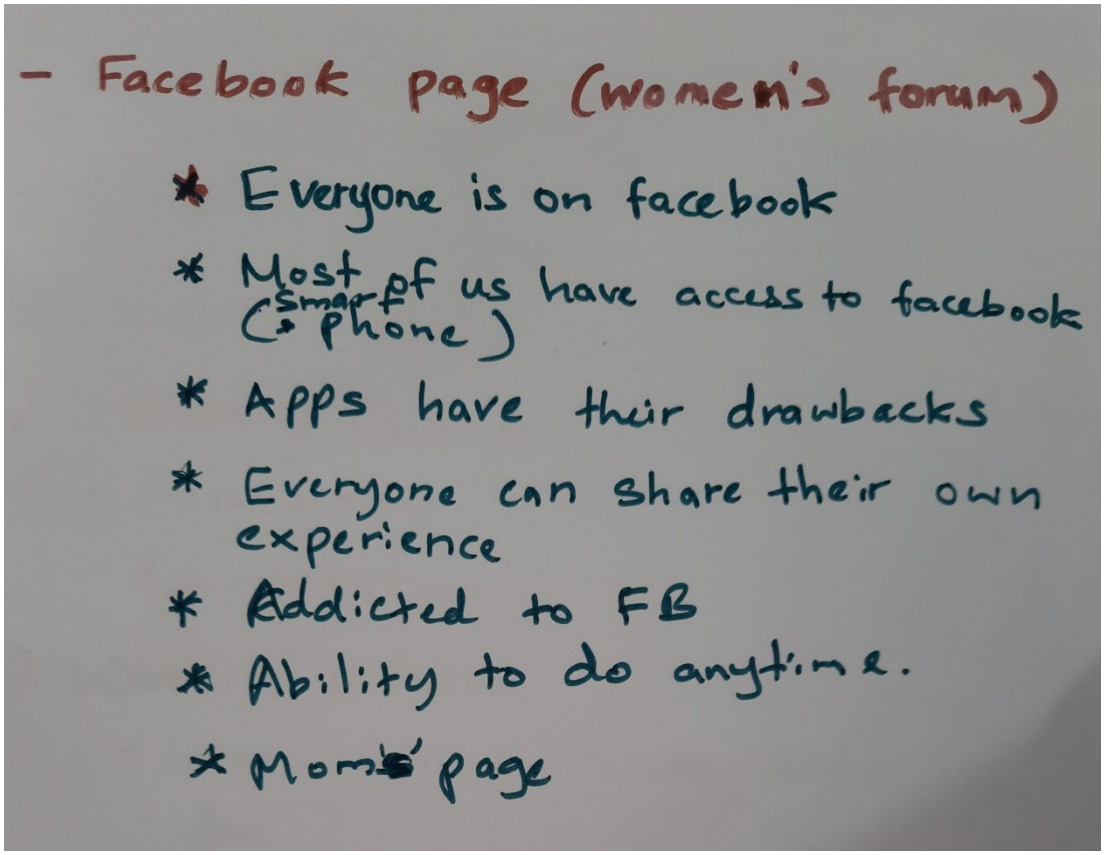


Figure 6.3

Example of mind mapping completed by Pair 3 during fieldwork

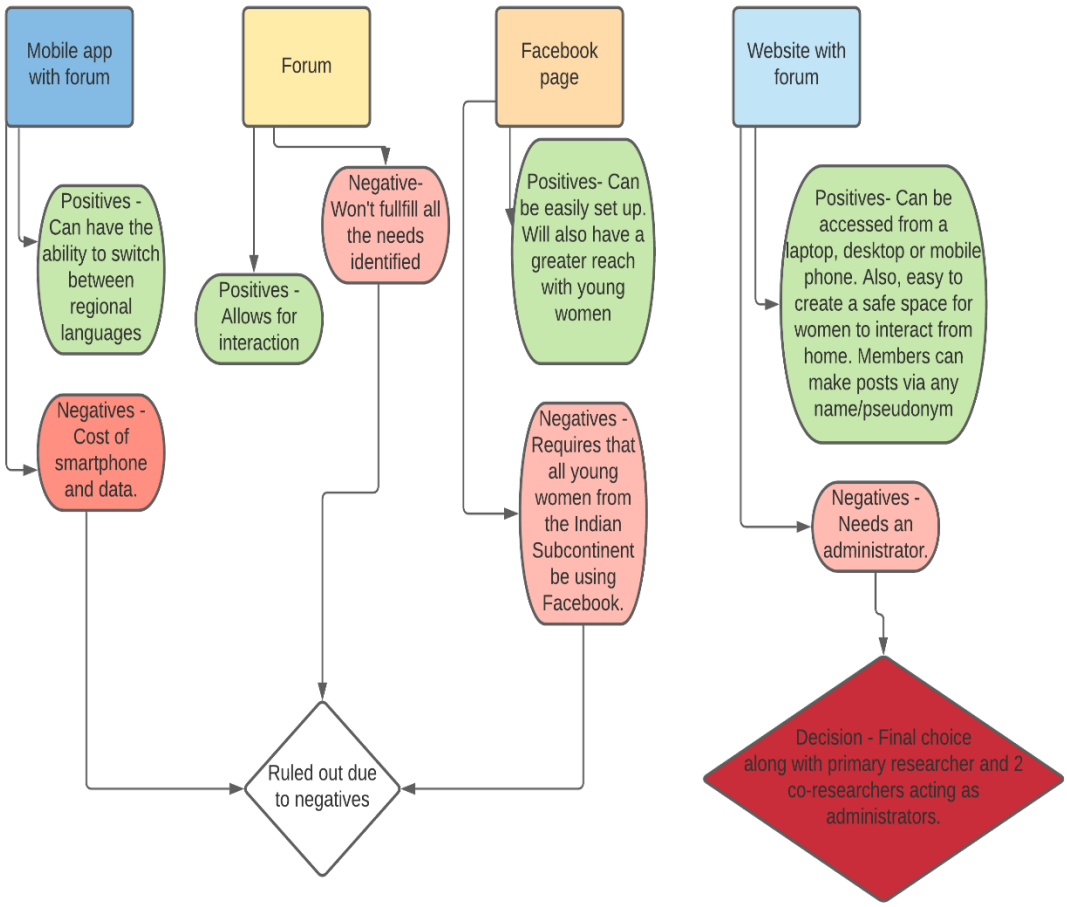


We worked through each of the shortlisted options as a group and concluded that a website would be the most ideal choice (See Figure 6.4). It could be accessed through any device with an internet connection, was discreet and private, and could host large amounts of information. The Facebook page was not considered ideal as it was only available to those registered on the platform, as well as the concern that it is usually a platform to connect with family and friends. It may, therefore, limit what one posts. Previous research has shown that the inability to conceal one's identity can prevent open conversations of taboo subjects (Frost et al., 2016). Similarly, a mobile app was avoided as it was only available on a smartphone. While most young women would be using one, we wanted the tool to be accessible by all women in the diaspora.

It is important to note that while we choose the website as our tool for dissemination of SRH promotion, it is unlikely that it would be the only platform used. This is because it could be converted into a mobile app and have a Facebook page to promote its use. Furthermore, the decision was made that a forum would be advantageous for a taboo issue like SRH. This forum would be embedded as a tab on the website. It would allow young women diaspora an avenue to engage with, educate, and support each other. This aspect is particularly important as being a migrant can be isolating.

Figure 6.4

Internet-based tools identified and worked through for dissemination of SRH promotion



In conclusion, the strategies identified by the research team would support the aim to improve SRH outcomes for the young women diaspora from the Indian subcontinent through creating a more informed community, reducing the taboo surrounding SRH, and better decision-making ability. The creation of an internet-based tool was apt as it allowed private and discrete gain of knowledge and discussions. The addition of the forum will further strengthen the ties of the young women diaspora with each other and support them at varying levels of settlement in New Zealand to gain knowledge of and access to services available. Previous research has shown that a community will only value a service if they know of its existence, can access it, and find it acceptable (Heaslop et al., 2010).

6.5. Developing the framework – Ring 3

This final ring of the framework draws on the knowledge gained (Ring 1) and the processes involved (Ring 2). This ring considers the aspects that are vital to the creation of internet-based tools for use with young women. It is important to note that the creation of an internet-based tool would require some technical expertise and may require the co-creation team to engage services of those with specialist knowledge.

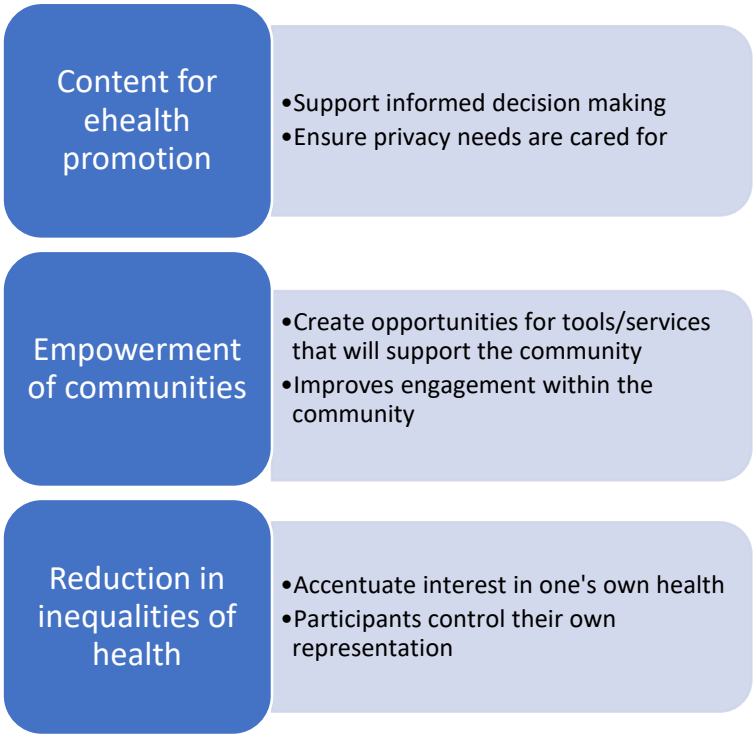
This ring aims to address the following three questions.

1. How can increased SRH knowledge improve public health outcomes?
2. How could co-created tools for SRH promotion support the empowerment of the community?
3. How could co-created tools for SRH promotion reduce inequalities of health?

To address these questions, I drew on the data to identify action areas and means by which each of them could be satisfied (See Figure 6.5). For instance, the fieldwork suggested that privacy needs must be addressed when creating a tool to disseminate SRH promotion. Additionally, a tool specific to the community would support greater engagement within community members. It may lead to strengthening of community ties and a reduction in the isolation that could be experienced by young women diasporas.

Figure 6.5

Action areas for the third ring of the framework



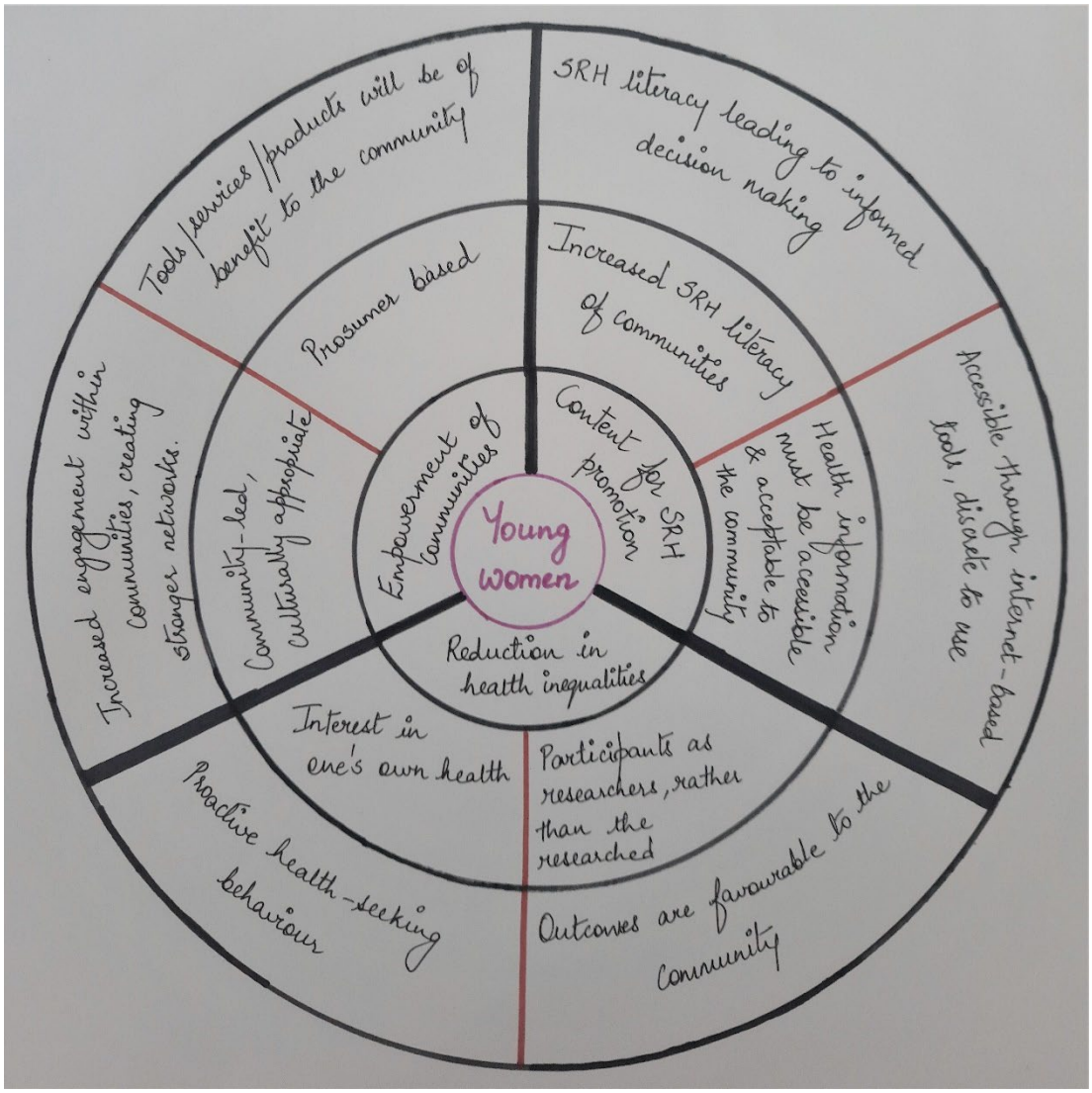
This ring of the framework draws on rings 1 and 2 to explain what tools could be used for SRH promotion, how they may be used and what outcomes could be achieved through their utilisation. It considers the central themes from the data and the empowerment process considered in Chapter 5.

Firstly, it has been identified through this project, that internet-based tools would be suitable to disseminate SRH promotion. Such a choice was made as they have a larger reach, can disseminate information in real-time and are more acceptable form of communication with young women. They also allow for greater engagement between users and provide opportunities for users to be producers.

Drawing from rings 1 and 2, this ring proposes that women co-creating health promotion through community-led prosumer projects, could lead to empowerment for young women diaspora from the Indian subcontinent. Also, the availability of services or products that result from the prosumer process will benefit the community and encourage further engagement in the community. Such engagement could result in stronger support networks that are currently lacking for young women diaspora in New Zealand. It is also proposed that increased SRH literacy among young women will result in informed decision making and proactive health-seeking behaviour. Ultimately, all these factors will result in more favourable public health outcomes for the young women.

Figure 6.6

Ring 4 of the framework



Furthermore, chapter 7 of this exegesis will discuss the impact of this project on the policy and practice of SRH promotion for young women diasporas from the Indian subcontinent living in New Zealand.

Chapter 7: Significance of the research

7.1 Introduction

This project aimed to understand the SRH needs of young women diaspora from the Indian subcontinent living in New Zealand and co-create strategies for SRH promotion. The study utilised the following questions to fulfil that aim.

1. What are the views of young Indian women living in New Zealand on SRH information and advocacy?
2. How can young Indian women be empowered to co-create internet-based SRH promotion?
3. What ideas and tools for internet-based SRH promotion emerge from the co-creation?

These research questions were addressed through the literature review and empirical study. This section of the exegesis aims to summarise the findings and consider how this research study might inform the policy and practice of health promotion. It will also address the key contributions of the study, while identifying the study limitations and scope for further research.

7.2. Summary of findings

The study identified a significant lack of sex education and SRH promotion experiences among young women from the Indian subcontinent living in New Zealand. It also highlighted that none of the team members had received any SRH promotion before menarche. The study also found a lack of knowledge around critical aspects of SRH, such as ovulation and contraception. There was recognition that women do not fully understand their sexual rights, with the research team agreeing they did not believe they had any.

Moreover, the study identified that young women diaspora are not familiar with the health system in New Zealand, which can lead to poor outcomes (Kanengoni et al., 2018). Sexual and reproductive health promotion can support creating an awareness of services such as the preference of midwives as lead maternity providers (Doering, 2012). Furthermore, the co-researchers in this study portrayed interest in forgoing traditional practices to integrate into the society in New Zealand. Some expressed that they believed such traditional ways were unscientific, or they did not fully understand the rationale for their existence.

The study further highlighted that young women are interested in their health and would like to engage more with SRH promotion. The reflection of the co-researchers underscored that they were surprised at the ease they experienced when discussing SRH issues as part of this project. They also reported feeling empowered through the project. Two co-researchers expressed interest in becoming administrators of the website and forum following creation.

This empirical study concluded that there was a need for age and culturally appropriate health information. It identified that young women, being digital natives, are highly likely to access health information via internet-based tools. However, it is concerning that they need to access multiple tools to gather information. Therefore, the study proposed the creation of a culturally appropriate internet-based tool, such as a website, to improve the health-information seeking experience. This improvement of health literacy could enable more community-led prosumer projects in the future.

Following the fieldwork and data analysis, the primary researcher developed an SRH framework from ideas that emerged from the project. A framework was drawn out to support the planning and creation processes of internet-based SRH promotion. Frameworks enable a strategic approach to planning and are vital in health promotion (Harris et al., 2012; Tannahill, 2008). They could also be adapted to suit various settings, including health promotion for other issues (Ng & de Colombani, 2015).

The findings of this empirical study highlighted the importance of three factors that can determine the success of SRH promotion. These include the content for health promotion, the empowerment of communities through health promotion, and the reduction of health inequalities. This framework, therefore, proposes that if SRH promotion needs to be effective, it must be culturally appropriate and age suitable for young women, it must be community-led and enable participants to be involved in its creation.

Furthermore, the framework proposes that internet-based tools are used for its dissemination as they are discrete, acceptable to young women, and have a larger reach. They also support the gathering of information when required; thus, enabling informed decision making. The framework also highlights that internet-based tools are appropriate for health promotion as they are the preferred source when seeking health information. They allow for interaction with other users of such tools thereby creating a support network within the community.

7.3. Methodological issues and limitations

This study employed co-creation FGDs within PAR processes. Co-creation was chosen to enable young women to shape SRH promotion and appeared to be well suited to their context and current circumstances. However, it is important to consider some methodological issues and limitations of using these processes.

Having the primary researcher as an insider was advantageous to this project. The primary researcher shared commonalities with the co-researchers, meeting the inclusion criteria. It allowed the primary researcher to facilitate discussions and extrapolate the knowledge constructed to create the SRH framework. Furthermore, cultural practices shape behaviours related to SRH, and this cultural common ground smoothed the way for the discussions (Chhabra, 2020). The primary researcher shared a similar cultural background to the rest of the team and could integrate into the group.

While being an insider has advantages, including a better understanding of the context and ease of communication, disadvantages could be the lack of reflexivity, the impact of preconceived notions, and the participants' reluctance to open up to an insider (Decoo, 2022; Dwyer & Buckle, 2009). In this study, being an insider allowed the primary researcher to be a co-creator, have a context for the experiences of the co-researchers, and communicate with ease with the co-researchers. The insider/outsider debate also becomes particularly important in studying migrants. An outsider may be more likely to lack empathy and understanding in asking participants to describe their experiences, whilst an insider might be more empathic and use appropriate language and style due to familiarity with the context (Carling et al., 2013). This aspect is vital in co-creation settings; therefore, further exploration of the impact of the researcher's

position on co-creation research is required. Further consideration can be given to how both insiders and outsiders can develop the right skills for this kind of research.

Furthermore, it became clear that this project needed to draw on additional skills, given the focus on digital development. Previous research has identified that the lack of familiarity with digital skills can impact the participants' ability to immerse themselves in the co-creation process (Cheng et al., 2020). Perhaps this hurdle could be mitigated by identifying skills possessed by the research team and creating a timeline for teaching additional skills. It would, therefore, reduce the impact that a lack of skills might have on achieving desired outcomes. The inclusion of persons with varied skills could enable better results from the co-creation process. While there is a growing emphasis on the use of co-creation, literature is scarce on the impact of the composition of the research team and the skills they possess (Oliver et al., 2019).

7.4. Implications of the study for policy and practice

This study makes noteworthy contributions to SRH promotion in New Zealand. It is the first study to explore the SRH needs of young women diaspora from the Indian subcontinent living in New Zealand. It is also a first in employing co-creation methods with the young women diaspora group. Therefore, this study provides an innovative contribution in a changing environment in terms of SRH as it relates to migration, technology, and user centred approaches, which could inform policy and practice that affects the diaspora and exemplify co-creation research for taboo issues.

Sexual and reproductive health promotion, as evidenced in this project, has a significant impact on SRH outcomes. Young women diasporas are at risk of poor SRH

outcomes due to lack of SRH promotion specific to their context, and awareness of SRH services in their new settings (Metusela et al., 2017). Sexual and reproductive health is shaped by socio-cultural factors such as cultural identity, religion, taboo, and cultural practices. The following sub-sections will examine the relationship between SRH promotion and aspects that influence its creation.

7.4.1. SRH promotion and taboo issues

The myriad of temples in India with sexual depictions highlight an era of sexual freedom in ancient times across the Indian subcontinent (Chakraborty & Thakurata, 2013; Das & Rao, 2019). However, the rule of more conservative Muslim rulers and, later, European nations, led to this sexual liberty being stigmatised (Chakraborty & Thakurata, 2013). The taboo that developed from this conservativeness has led to a lack of appropriate health promotion. Young women diaspora from the Indian subcontinent are likely to have experienced a lack of SRH promotion. Therefore, to support improved health outcomes, it is essential to consider how health promotion could be created, that would suit such taboo topics and reflect the changing social and technological environment. For health promotion to be acceptable to the community, it must satisfy societal norms and traditional practices (Kumar & Preetha, 2012).

Symbolism is prevalent in many SRH practices in the Indian subcontinent and supersedes the scientific rationale. However, the rise in internet-based tools has resulted in growing opposition to the symbolism in SRH practices which, literature highlights, is mainly due to lack of understanding of the scientific roots of such knowledge (Krishna et al., 2017). With levels of education increasing among women from the Indian subcontinent, and as they move away from their home and cultural

context, it is crucial to explain the scientific rationale for some of these practices, thereby ensuring traditional knowledge is not lost.

Culturally specific health promotion must be created and disseminated that values culture, current practices, and religion, among other aspects. Such culturally specific health promotion will be more acceptable to the community (Kumar & Preetha, 2012). Furthermore, culturally appropriate health promotion will increase health literacy. Health literacy is vital as it can lead to a reduction of health inequality and improve health outcomes (Dias et al., 2021)

Health promotion has largely been undertaken through the distribution of posters and pamphlets. These measures are mainly vertical with the information provided by public health experts. They provide an opportunity for the community to obtain health information but do not encourage discussions. However, the rise in popularity of the internet and the availability of social media platforms present a unique new opportunity. Users of internet-based tools can now interact and exchange information across geographical boundaries that previously may not have been plausible. These interactions are largely discrete and can allow better engagement in taboo issues such as SRH (Hawkey et al., 2021). Therefore, the SRH framework proposes that the content for health promotion must be culturally appropriate, aimed at increasing SRH literacy of the community, disseminated through internet-based tools.

7.4.2. SRH promotion and the role of co-creation

This empirical study has highlighted that young women diaspora are interested in their health. This interest can be utilised to improve their health outcomes and those of the

community. Co-creation, a participatory method, places significant value on the participants' lived experiences and allows young women diaspora to create contextual SRH promotion.

Previous research has shown that the Indian diaspora shares a powerful sense of community (Nayar et al., 2012). It includes working at specific locations with fellow diaspora and having closer social circles within the community. Also, literature has highlighted that Indian women maintain customs and traditions by glorifying the notion of an ideal woman (Mitra & Knottnerus, 2008). Women, therefore, uphold these traditional practices for fear of criticism by other women. This sense of community among diaspora could be tapped for shaping social change through co-creation projects. Such projects could empower women to uplift their communities by recognising their SRH rights and realising a decision-making ability.

While participatory co-creation methods have been in use in the pre-digital world, the increasing availability of the internet has created more avenues for engagement. The internet also enables the recruitment of desired team members, allows for collaboration on projects, and reduces the cost of resources required. Community-led prosumer initiatives have been shown to improve health outcomes as they are more acceptable to the community (Haldane et al., 2019). Such initiatives can also increase engagement within the community resulting in greater community support networks for young women (Brown et al., 2020).

7.4.3. Need for transformative internet-based SRH promotion

Traditional methods consisted of printed material such as pamphlets and posters. These took time to create and disseminate. This study explored the growing role of the internet in public health information and advocacy. It includes internet-based tools for health promotion and other newer methods resulting in more contemporary transformative health promotion. Internet-based tools allow information to be shared in real-time. It also offers an advantage as they are usually free to use, barring costs for data usage. It also means that information is now available to large populations as the internet has a more extensive reach than traditional health promotion methods.

Furthermore, the rise in the use of internet technology has resulted in increased use of social media platforms. It has created new profiles such as “Influencers” and “YouTubers”. These persons usually have large audiences that relate to them and their work. Social media platforms like Instagram or TikTok allow a humanisation of the information, making it more relatable. So far, these users have been disseminating health promotion but may not have the right tools to provide accurate information.

However, such dissemination may be more acceptable to the community as it was created by its own. The way forward would be for the government and non-government agencies to engage with users of these social media platforms, and others, especially those with new skills in ehealth, in a co-creation model. It would ensure that the disseminated information would be quality controlled, disseminated in real-time, and reach a large proportion of the population. It would also benefit these users to increase their audiences through co-branding with the government and other agencies.

Furthermore, the SRH framework suggests SRH promotion will lead to more proactive health-seeking behaviour.

7.5. The SRH framework – A tool for transformative internet-based SRH promotion

A SRH framework was developed through this project as a means of capturing the key ideas of this study (See Figure 6.6, p 109). Frameworks are excellent tools for informing the creation and planning of future SRH promotion. Furthermore, internet-based tools developed through co-creation projects are becoming an essential ingredient of enabling empowered communities. This SRH framework is an excellent tool for transformative internet-based SRH promotion as it draws on the needs of the young women and considers how their interest in their health could be used to the advantage of the community.

This framework proposes that whilst the target group is central to the exercise, their experiences will inform the contents of the other layers. Also, the theoretical and methodological perspectives of this study consider women to be experts of their experiences; therefore, a choice was made to place them central to the framework.

The framework has three layers. The first considers how the SRH needs of young women could be addressed by SRH promotion. The second layer reflects on how they might be empowered to co-create SRH promotion; while the third and outermost layer refers to the tools required for the creation of transformational health promotion. Although these are three separate layers, they are not autonomous and are dependent

on each other with each informing the other, and each layer extrapolating from the knowledge gained.

The first layer identifies the content of health promotion, the empowerment of communities through health literacy, and the reduction of inequalities of health as its central themes. These were drawn from the fieldwork with the young women diaspora. These central themes extend to and inform the other two layers, suggesting the use of prosumer models to create health promotion that is culturally appropriate and acceptable by the community. It targets the interest of young women in their own health to support them to increase their SRH literacy and enable them to engage in co-creation projects.

The outer layer suggests factors that are important for the creation of contemporary transformative health promotion. These include the selection of appropriate internet-based tools that support discrete discussions and engagement between the young women diasporas. Such engagement will be crucial to create better support networks in New Zealand for the young women diasporas from the Indian subcontinent. Furthermore, this outer layer suggests engaging with users of internet-based social media platforms to broadcast the information via their channels; therefore, advocating for the community and increasing health literacy. All these measures will improve outcomes of SRH for the young women diasporas which, in turn, will impact the overall public health outcomes in New Zealand.

7.6. Recommendations for future research

This project explored the SRH needs of young women diaspora from the Indian subcontinent. Due to financial and time constraints, only one action research cycle was completed. Further research may be conducted using more cycles to achieve the desired outcome. This study also highlighted the importance of the composition of the research team for such co-creation projects and included a discussion of the advantages and disadvantages of the primary researcher being an insider versus an outsider to the community. Further research in similar settings may be required to contribute to this debate.

This study undertook the first cycle in the PAR process and, as such, would provide a good basis for further development incorporating further steps in co-creation including the additional skills in digital design not possessed by the team. As previously highlighted, the practice of co-creation may benefit from inquiry as to the composition of co-creation teams. Additionally, further research on the long-term impact of the co-creation process could measure if social change was occurring within this population group. Such studies will evaluate the costs for value analysis of co-creation research, which could inform future practices. However, the context of such inquiries is important following advances in internet technology and their impact on co-creation research.

7.7. Closing remarks

While this study was undertaken to fulfil an academic qualification, it was not the only rationale for its conduction. It has been an opportunity to identify the SRH needs of women primarily marginalised in a patriarchal society. This project provided the

young women team with a chance to discover their sexual rights, express their needs, and shape health outcomes for the community.

Community-led prosumer initiatives have shown to improve informed decision making and health outcomes. Co-creation projects, such as this one, are likely to produce material specific to its context and relevant to the population group. However, this study also identified that young women from the Indian subcontinent are less likely to have sufficient knowledge of SRH. Lack of knowledge can lead to a lack of discourse on the subject, continuing the taboo surrounding SRH (Beck et al., 2005; Bhatt, 2018).

Furthermore, the dissemination of traditional health promotion has been completed through pamphlets and posters. However, the increased availability of internet technologies provides far greater opportunities for SRH promotion. Internet-based tools allow for information to be disseminated at a faster pace. The popularity of social media platforms also provides an opportunity to personify health promotion. These factors create an exciting future for SRH promotion.

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Appendix A: Ethics Approval

Auckland University of Technology Ethics Committee (AUTEC)
Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

2 September 2019

Cath Conn
Faculty of Health and Environmental Sciences

Dear Cath

Re Ethics Application: **19/235 Co-design of sexual and reproduction ehealth promotion among young women from the Indian Subcontinent in New Zealand**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 30 August 2022.

Non-Standard Conditions of Approval

1. Currently the Information Sheet mentions only audio recording, not video or photographs. Please ensure that participants understand the researcher's intentions around taking visual recordings prior to consent.

Non-standard conditions must be completed before commencing your study. Non-standard conditions do not need to be submitted to or reviewed by AUTEC before commencing your study.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.

3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted. When the research is undertaken outside New Zealand, you need to meet all ethical, legal, and locality obligations or requirements for those jurisdictions.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through http://www.aut.ac.nz/research/researchethics

Yours sincerely,

Kate O'Connor
Executive Manager
Auckland University of Technology Ethics Committee

Cc: dr.darinkasousa@gmail.com; Radilaite Cammock

Appendix B: Advertisement

Call for Participants for a Research study

"Co-creation of an artefact* for sexual and reproductive ehealth promotion"

Required criteria:

- Young women from India, Bangladesh, Pakistan, Sri Lanka and Nepal, who have been living in New Zealand for a period of less than 5 years
- Aged between 20 – 30 years
- Fluent in English
- Interesting in working with other young women in a team and available to provide 6 – 10 hours towards the research

If you would like to participate in the study or have any questions that are holding you back, feel free to contact Darinka Sousa on:
Mobile – 0274430590 or email – dr.darinkasousa@gmail.com

(Refreshments will be provided for each focus group along with koha on completion of the study)

* the artefact may be a mobile application/ a webpage or any other form of presentation decided by all participants through the focus groups

Appendix C: Participant Information Sheet

Date Information Sheet Produced:

22/04/2019

Project Title

Participatory action research to co-design sexual and reproduction ehealth promotion among young women from the Indian Subcontinent in New Zealand

An Invitation

My name is Darinka Sousa and I am undertaking this research study for the purpose of obtaining a master's in philosophy degree with the Auckland University of Technology. The study involves us working as a team to design an artefact/ a tool that will be culturally sensitive and provide young women from India, Bangladesh, Sri Lanka, Nepal and Pakistan with information about sexual and reproductive health.

What is the purpose of this research?

The purpose of this research is to provide young women from the Indian Subcontinent with a safe space to design an eHealth promotion, to be used on a smartphone, artefact or tool that will help them to make informed choices about their sexual and reproductive health. A tool might be an app, or a social media site, or some other idea. As a participant of this research, you will have the opportunity to shape this artefact as well as gain skills required to conduct research.

The findings of this research may be used for academic publications and presentations.

How was I identified and why am I being invited to participate in this research?

The participants that I am looking for in this study include young migrant women between the ages of 20 – 30 years from the Indian Subcontinent i.e. from India, Pakistan, Bangladesh, Nepal and Sri Lanka; who came to New Zealand within

the last 5 years. The artefact would be prepared in English and therefore requires you to be fluent in the language.

How do I agree to participate in this research?

You will receive a consent form along with this information sheet. After you have read through this information sheet, please feel free to contact me in case you have any queries or concerns. If you are happy to participate in this study, please complete the consent form and email it back to us. Also, please note that your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are also able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What will happen in this research?

The study involves 6-8 participants working closely as a team through Participatory Action Research (PAR) to co- design a tool, one that can be used on a smartphone, that benefits young women from the Indian Subcontinent to make informed decisions about their sexual and reproductive health. Data will be collected via 3-5 focus groups, each of about 1-2 hours. These FGDs will be held at AUT's City campus. The FGDs will be audio – recorded and transcribed later. The FGDs will take place over a period at the time and venue which is convenient to the group. On completion of the FGDs; the records of the transcribed FGDs will be sent to the co-researchers for finalisation and to rectify or clarify any issues that need to be addressed.

What are the discomforts and risks?

You may initially feel some level of discomfort as you may not used to openly discussing sexual and reproductive health.

How will these discomforts and risks be alleviated?

The initial focus group discussion, or two, will form the basis of creating a comfortable and safe space for the discussion and co-design.

What are the benefits?

The potential benefits to you include the opportunity to co-design an ehealth promotion artefact, collaborating with other women, and sharing your views and ideas. The potential benefit to the wider community is that this study will also provide the women from these communities with more information on sexual and reproductive health (SRH) and therefore aid informed decision making for SRH.

How will my privacy be protected?

As a participant in this research study, you will be a co-researcher working together with the other participants and myself as a team. However, the report prepared at the end of the study will not contain any personal identifiable information about you.

What are the costs of participating in this research?

The costs involved would be the time spent for the focus group discussions. Refreshments for each focus group discussion and a "thank you" $25 Westfield voucher will be provided at the end of the last focus group discussion as koha.

What opportunity do I have to consider this invitation?

You will have 2 weeks to respond to this invitation.

Will I receive feedback on the results of this research?

This study involves you as a co-researcher and therefore the summary of the findings will be shared with you.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Cath Conn, cath.conn@aut.ac.nz, 64+ 9 921 9999 Ext 7407.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz* , 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Darinka Sousa, dr.darinkasousa@gmail.com

Project Supervisor Contact Details:

Cath Conn, cath.conn@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on 2 Sept 2019, AUTEC Reference number 19/235.

Appendix D: Consent forms

Consent Form

For use when focus groups are involved.

Project title: **Co-design of sexual and reproduction ehealth promotion among young women from the Indian Subcontinent in New Zealand**

Project Supervisor: ***Cath Conn***

Researcher: ***Darinka Sousa***

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 24/04/2019.
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.
- ○ I understand that notes will be taken during the focus group and that it will also be audio-taped and transcribed.
- ○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ○ I understand that if I withdraw from the study then, while it may not be possible to destroy all records of the focus group discussion of which I was part, I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ○ I agree to take part in this research.

○ I wish to receive a summary of the research findings (please tick one): Yes○ No○

Participant's signature: .....

Participant's name: .....

Participant's Contact Details (if appropriate):

……..

……..

……..

……..

Date:

Approved by the Auckland University of Technology Ethics Committee on 2 Sept 2018, AUTEC Reference number 19/235.

Note: The Participant should retain a copy of this form.

Consent and Release Form

For use when photographs, videos or other image recording is being used

Project title: **Co-design of sexual and reproduction ehealth promotion among young women from the Indian Subcontinent in New Zealand**

Project Supervisor: **Cath Conn**

Researcher: **Darinka Sousa**

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 24/04/2019.
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ○ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ○ I permit the researcher | artist to use the photographs that are part of this project and/or any drawings from them and any other reproductions or adaptations from them, either complete or in part, alone or in conjunction with any wording and/or drawings solely and exclusively for (a) the researcher's | artist's portfolio; and (b) educational exhibition and examination purposes and related design works.
- ○ I understand that the photographs will be used for academic purposes only and will not be published in any form outside of this project without my written permission.

- ○ I understand that any copyright material created by the photographic sessions is deemed to be owned by the researcher | artist and that I do not own copyright of any of the photographs.
- ○ I agree to take part in this research.

Participant's signature: .....

Participant's name: .....

Participant's Contact Details (if appropriate):

……..

……..

……..

……..

Date:

Approved by the Auckland University of Technology Ethics Committee on 2 Sept 2019 AUTEC Reference number 19/235

Note: The Participant should retain a copy of this form.