Mother and child health in Swat, Pakistan: A qualitative study to explore the perspectives of mothers who received home visits for antenatal and postnatal care and to understand their views on the community health worker program by Swat Relief Initiative

BY

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DECLARATION

No portion of this work has been submitted in support of an application for degree or qualification of this or any other University or institute of learning.

Name

DR.AMBREEN NAVEED HAQ

DEDICATION

"This research is dedicated

With love to

Zebu & Arshad Jilani"

The two gentle souls who are changing lives of the disadvantaged Women and Children in Swat

ABSTRACT

TITLE: Mother and child health in Swat, Pakistan: A qualitative study to explore the perspectives of mothers who received home visits for antenatal and postnatal care and to understand their views on the Community Health Worker Program by Swat Relief Initiative (SRI-CHW).

INTRODUCTION: Pakistan has an alarmingly high maternal mortality infant mortality rate. This is worse in the Northern areas of Pakistan and in places like Swat where extremism and terrorism have traumatized the communities. Swat relief initiative is an NGO operating multiple programs that target the welfare of women and children since ten years in Swat. Health workers from the SRI Healthcare Program have been providing basic antenatal, postnatal services including vaccination and family planning.

AIM: To explore the perspectives of mothers who received antenatal and postnatal care, and to explore their views on the SRI Healthcare Program. This study aims to understand the community perception regarding this program and to gauge its effectiveness as a public health intervention, and provide suggestions for improvements.

METHODS: Qualitative methods were employed to conduct the research. Eighteen moderate length interviews were undertaken from the recipients of the SRI Healthcare Program. Purposeful sampling was employed and interview guide was used to conduct the interviews. Thematic content analysis of data was performed to obtain the results. An interpretivist's epistemological approach was used to interpret the results.

RESULTS: Four themes were identified as following: Care during delivery, delivery, postnatal care and maternal mortality in the area. Areas such as care before and after the program was noted, advice by the SRI Healthcare Workers and dietary advice were explored. Community perceptions regarding choices for delivery and their experiences were explored.

CONCLUSION: A highly positive attitude of the community was noted towards the SRI Healthcare Program. Therefore, future research is suggested to study this model to advocate its replication in Pakistan and other similar contexts.

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ABBREVIATIONS

MMR	Maternal Mortality Rate
NIPS	National institute of population studies
UN	United Nations
WHO	World Health Organization
LHV	Lady Health visitor (government of Pakistan employee)
CHW	Community Health Worker
SRI-CHW	Swat Relief Initiative – Community Health Worker
WALI	Last Ruler of Swat when it was a Princely state
KPK	Khyber Pakhtunkhuwa Province
SRI	Swat Relief Initiative
CHARM	Chief Minister's initiative for attainment and realization of Millennium development goals
BIBI	The Last Wali`s granddaughter
MNCH	Maternal and Child health
GRAVIDA	Pregnant woman
PARA	Woman with children
TBA	Traditional birth attendant

CONTENTS

(NOT INCLUDED IN WORD COUNT)

CHAPTER 1 INTRODUCTION

1.1 GLOBAL PERSPECTIVE ON CHILD AND MATERNAL BIRTH OUTCOMES

Pakistan became signatory to the United Nations Millennium Development goals particularly MDGs 4& 5, that were set to reduce the global burden of maternal mortality and infant mortality to as low as seventy percent by Year 2015 (WHO, 2012). According to a WHO report the global maternal mortality rate (MMR) reduced from 385 deaths per 100,000 live births in 1990 to 216 per 100,000 in 2015. This shows a decline of 43.9%. The target set for maternal mortality reduction by United Nations is 70% from the present rate (Alkema. et al., 2016). Globally the child mortality under five years has declined to 53%, from 91 per 1000 live births to 43 in 2015. (UN IGME, 2015, p 3).

1.2 PAKSITAN PERSPECTIVE

1.2.1 PAKISTAN GEOGRAPHY

Pakistan is situated in the northwestern part of the south Asian subcontinent. It comprises of a total land area of 796,096 square kilometers, it features a diversified terrain and topography. It is divided into five provinces namely Sindh, Punjab, Khyber Pakhutunkhwa and Federally Administrative Tribal Areas (FATA, Baluchistan and Gilgit Baltistan). Pakistan is predominantly an agricultural country, and about 64 percent of its population lives in rural areas. It is the sixth most populous country in the world. (GOP, 2013).

1.2.2 MATERNAL AND INFANT MORTALITY IN PAKISTAN:

The estimated maternal mortality rate for year 2015 in Pakistan is 178 deaths/100,000 live births (WHO, 2015). This reaches up to 500/100,000 live births in rural areas especially in the North (Rehman, Ahmed et al., 2015). Infant mortality rate is 66/1,000 births (UN Children`s Fund, 2015).

1.2.3 COMMUNITY HEALTH WORKERS AN OVERVIEW OF THE HEALTH WORKERS FUNCTIONS AND UTILIY AS HEALTH SERVICE PROVIDERS

1.2.3a HISTORICAL BACKGROUND

Community health workers (CHWS), lady health workers, volunteer health workers, and voluntary health workers, are all synonyms of a cadre of health care providers who are selected and trained to work in the communities they belong. (Sanders & Lehmann,. 2007 p 3).

Health workers include doctors, paramedics, nurses, midwives and community health workers. Over all there is a shortage of doctors. This is especially more defined in the developing world. It is estimated that there is a shortage of almost 4.25 million health workers in Africa and Asia. There is also an unequal distribution of these workers in the developed world as compared to the developing world. Similar is the case of rural versus urban areas (WHO; 2006 p 11-14). CHWs form the basic work force which can help communities in providing primary health care. According to WHO: “Community Health Workers should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers” (World Health Organization,

1989. p 6). In United States these are defined as workers who assist and advocate to individuals and communities to adopt healthy behaviors. (US Dep. Labor Bur. Labor Stat. 2013).

The concept has been known since over half a century. In 1920 “The Bare foot doctors” of China were illiterate individuals who were provided training in health for three months and made to serve their communities. Their job was to provide first aid, vaccination, maintain birth and death registers, provided health education and basic medical care. (Rifkin, 2008), (Taylor-Ide, Taylor, 2002). These workers were expected to perform both their duties towards agriculture and healthcare provision. By 1972 there were almost 800 CHWs in providing services to their communities in China. (Siedal,1972). Similar was the village health volunteer program from Thialand. (Kauffman & Myers, 1997; Srigernyuang, Hongvivatana & Pradabmuk, 1995). This concept was replicated by other countries facing shortage of trained health care workers (Sanders, 1985). The role of these workers was undermined by the economic recession of the 1980`s. The main factors responsible were economic crises, political changes, policy shifts, decolonization, democratization, self reliance and this approach of fulfilling basic needs was affected by newer economic targets. Despite all this Non Governmental and faith based organizations continued their investment in small scale community health projects (Gilson et al., 1989).). Many successful examples of this program exist in various parts of the world. These include Bangladesh (Perry , 2000), Brazil (Rice-Marquez, Baker, & Fischer. 1998) Indonesia (Yahya, 1990), Ghana (Morrow, 1983) and Niger (Fournier and Djermakoye, 1975).

1.2.3b SCOPE OF WORK

The scope of work and utility of these workers range from providing advocacy from improving mother and child health (Rowe and Samantha, 2007), improving maternal and infant mortality through uptake of antenatal care and postnatal care (Tesfaye etal., 2014) and safer child birth practices (Andereson etal .,2013) (Dhingra etal ., 2014) . To name a few initiatives these workers have been utilized in prevention and treatment of Malaria (Druetz et al., 2015) Tuberculosis (Nathavitharana etal., 2016), HIV programs (Thomson etal., 2014), Polio eradication programs (Kamso et al., 2016), and Ebola programs (Perry, Dhillon et al., 2016) . However advocacy and bringing health care knowledge to the doorsteps of communities remains their main function (Gilbert etal., 2014).

1.2.4 SWAT

Swat is river valley situated in KPK, Pakistan. It is situated in the North-West Frontier Province of British India and later Pakistan. It was once a princely state which was later handed over to the Government of Pakistan in 1969. Swat was an internally independent state till 1969 ruled by the “Wali” or ruler. It had "its own ruler, laws, its own system of justice, army, police and administration, budget and taxes. (Sultan –i- Rome, 2000). Swat has been called the Switzerland of east by Queen Elizabeth owing to the natural scenic beauty of the valley.

1.2.5 SWAT RELIEF INITIATIVE (SRI). A NON GOVERNMENT ORGANIZATION

Swat has undergone several disasters including the Taliban insurgency of 2009, large-scale flooding, and recently, a devastating earthquake. In this backdrop Swat Relief Initiative (SRI) a non-government organization was launched by the granddaughter of the Last ruler of Swat in 2010. SRI works in the area to improve the lives of women and children through various initiatives all targeted for community development. The main components of the program include social mobilization, preventive health program, economic development and education. The health program relies mainly upon the community health workers, these have been recruited directly by utilizing the influence and personal dedicated efforts of the granddaughter of the Last ruler of Swat (Bodakowski et al., 2010).

1.2.6 COMMUNITY HEALTH WORKERS WITH SWAT RELIEF INITIATIVE

The SRI-CHWS provide antenatal care and postnatal services to women in their own homes. In addition, they pick up high-risk cases and provide timely referrals. This study aims to explore the perspectives of the recipients of this community health worker program. It aims to understand end-user opinion on this public health intervention, thereby gauging its effectiveness, as a public health intervention.

CHAPTER 2 LITERATURE REVIEW

2.1 LITERATURE SEARCH

2.1.1 SEARCH STRATEGY

Using the PICO search criteria (Schardt, et.al, 2007). Key words were identified for utilization in the literature search. The Acronym of PICO was applied to the search strategy as described below: **P**- Problem and Population (Maternal and Child health in Swat , Pakistan) ; **I**- Intervention (Community Health workers or lady health visitor program), **C**- Comparison (Places where the community health worker programs do not exist or before such programs were in place), **O**- Outcome (the benefits of the program from community perspectives; or benefits in delivering better health care; or improving maternal and child mortality in the area all through the perceptions of the community or the recipients).

2.1.2 DATA BASE SEARCH

The key words search was entered in the University of Liverpool online library search tool Discover. The Boolean term "AND" was applied between the key words and combinations to remain focused to the research question. Boolean term "OR" was applied amongst synonyms to widen the research effort. Refined search was also undertaken from search engines like Google Scholar, SCOPUS, Science Direct and PUBMED. Searches were conducted between 2006-2016.

Google search engine was used to gather statistics and relevant reports related to the topic. These sites included WHO sites, UN web sites and Government of Pakistan Official sites e.g. Pakistan demographic survey. All these were employed to gather relevant facts, history and background of the topic.

2.1.3 KEYWORDS:

"Community Health Workers" AND Maternal and Child health; "Community perspectives" OR "experiences"; AND "Community preventive health care program"; OR "Community health workers"*; OR "Lady health workers"*;OR "Community Health Workers" AND "Communities". Community Health workers and "Swat District" OR "Khyber Pakhtunkhuwa Province" OR "Northern areas of Pakistan" OR "Pakistan" ; OR "Global experience"; AND "Qualitative research" OR "Interview" OR " Focus group discussions" .

2.1.4 INCLUSION CRITERIA

- Qualitative Research, conducted on the subject globally.
- Title matching the research question or relevant to the research question, and studies considered as relevant to the research.
- Date range of publications was from 2006-2016.

2.1.5 EXCLUSION CRITERIA:

- Studies published in languages other than English.
- Studies irrelevant to researched question.
- Duplication

2.1.6 SEARCH REVIEW RESULTS:

Online library of university of Liverpool was used for data search. Following search engines have been employed. Google Scholar, Pub Med, Science Direct, SCOPUS. Key words and phrases were used and relevant papers were identified by matching the search question. Refined search includes qualitative studies. Using the search strategy described above following results were obtained. Eleven studies were included in literature review. It also included one report from World health organization, and one assessment of CHARM project in Punjab, Pakistan.

SEARCH ENGINE	TOTAL NUMBER OF PAPERS	INCLUDED	EXCLUDED
DISCOVER	182 (after removal of duplicates) 114	6	176
SCIENCE DIRECT	46 (filters: 2006-2016)	2	44
PUB MED	4	1	3
SCOPUS	55	1	54

2.2 LITERATURE REVIEW

2.2.1 COMMUNITY HEALTH WORKERS IN PAKISTAN & SWAT

The healthcare sector in Pakistan, comprises of a rural-urban mixture. There are shortages of health personnel in each cadre ranging from doctors, nurses, para- medics and skilled birth attendants. Lady health worker cadre was formed in 1994 by the government of Pakistan for Family planning and primary health care. It was aimed to target the unmet need of the masses. These lady health workers were trained at a government hospital facility for a period of fifteen months and then sent to their home stations to serve the population. Their education limits were set as level of grade eight. The workers were chosen from the target communities. After completion of training they are sent to the districts where their working is supervised by the district health officers and community health workers supervisors (Glenton et al., 2013). A study done by Oxford Policy Management in year 2000 concluded that the populations served by the lady health workers were significantly healthier than those un-served by this cadre of health work force. Almost 100,000 lady health workers have been trained and are in the health care system yet they are still needed (WHO ; 2008).

The role of community health workers cannot be emphasized enough in remote mountainous areas (Haq, Iqbal and Rahman, 2008). It was documented that in the Khyber Paktunkhwa Province (KPK), it was difficult to recruit community health workers. (Haines et al., 2007). Matters were made worse in areas like Swat where extremism was rampant; community health workers have been threatened and killed by terrorists for advocating the use of contraception and

vaccination (Din, Mumtaz and Attaullah, 2012). This was a key assumption in the mind of the researcher regarding potential difficulties to be encountered in conducting research in Swat.

2.2.2 COMMUNITY PERSPECTIVES REGARDING COMMUNITY HEALTH WORKERS IN PAKISTAN

An evaluation report of the Chief Minister's Initiative for Attainment & Realization of Millennium Development Goals (CHARM), in Punjab, employed mixed methodology to evaluate the CHARM facilities, services and Community health workers services to the targeted population. A component of this assessment was to gain community perspectives on the working of community health workers and other facilities. This was a large scale assessment, performed to evaluate the initiative taken in Punjab to improve the seven districts hard hit by 2010 floods. The whole assessment included both quantitative and qualitative methods. A component of the assessment included community perspectives of the beneficiary community. The method of data collection used by CHARM team was focus group discussions with the community beneficiaries. The communities expressed their satisfaction with the lady health workers however wanted more to facilities to be provided through them. (CHARM 2012-2013). These findings though pertinent cannot be generalized to Swat as the CHARM initiative is a specially funded project in seven districts of Punjab. Although, project was conducted in similar conditions like post flood times it included funding for up-gradation of hospital facilities and ambulance network as well.

Vaccination is a major activity carried out by the community health workers. High resistance has been recorded in Swat against injectable vaccines and polio vaccination. These negative community perceptions have led to brutal killings of the health workers in this area. A qualitative

study was undertaken in Swat on community perceptions regarding oral polio vaccination, showed deep seated religious and cultural barriers which undermined attempts to eradicate polio. Murakami, Kobayashi et al., undertook six focus group discussions with the community, and six interviews with lady health visitors. This was a mixed method study and was conducted in three districts of Swat, to view the community perceptions regarding vaccination and why is there a high rate of refusal. The study results showed that a conspiracy theory is associated with vaccination. It is believed that the locals associate vaccination with sterilization of their future generation. Another reason was strong opposition by the religious leaders in the area who call vaccination "HARAAM" (forbidden) due to addition of pork byproducts. (Murakami, Kobayashi etal., 2014) . This study had limitations and one of which was a lot of attention to the perspective of health workers as compared to the community opinion, owing to design of the study. However, results of this study are pertinent and relevant to this study as these community beliefs can be assessed and interventions can be targeted to dismiss these ideas, through the community health workers program. In addition, such views can be explored during the interviews.

In Punjab, a qualitative study tested on a varied sample of 21 health workers and 27 community members, showed, that patriarchal norms in the society hampered the work and appointment of the community health workers. The unwarranted perception of CHWs to bear a promiscuous character was noted. Those workers who were selected were from the poorest segment of the society. It showed that maximum benefit was attained by members of the same family as the appointed health worker visited their family members more as compared to non-members. It also suggested that since these workers were selected from the poorest of communities so by default the poorest population was attended more and provided better service by this cadre of health

workers (Mumtaz., Salway et al., 2013). Assuming this was the community perception of CHWs in another province, it would be interesting to note how these workers are perceived by the people of Swat, KPK.

A qualitative research article published in BMJ in 2012, studied the problems faced by health workers of Swat, shows they have been brutally treated by the Taliban and the local population during the conflict. Negative perceptions still exist in Post Taliban era. These brutalities were part of the campaign run by extremists to undermine and degrade health care program for women. This attitude was supported by certain "FATWAS" (religious decrees) by the head of the Taliban leader Mullah Fazullah. (Din., Mumtaz, & Ataullahjan,. 2012). In this light the community perception is a point to explore on a deeper note.

A similar research was conducted in Uganda. The Recipient's perspectives studied in Uganda demonstrated high appreciation of maternal and child interventions conducted by community health visitors. The study included interviews and focus group discussions including health workers, community leaders and mothers (Okuga et al., 2014). There are similarities in conditions in Uganda and Pakistan to some extent, but in Pakistan cultural values and tribal norms are different, therefore the results cannot be generalized for this population.

Antenatal and postnatal services are important for ensuring safe childbirth and infant care. They have a role in preventing maternal mortality and infant mortality and reducing morbidity. A qualitative study of community members to explore community perspectives in Garut, Sukabumi and Ciamis districts of West Java Province, Indonesia was conducted in July 2009 in six villages and three districts of West Java Province of Indonesia. The researchers carried out 20 Focus group discussions and 165 in-depth interviews. Results showed that the main reason why women

attended antenatal and postnatal services was to ensure their safety. However some women failed to attend these services because of poverty, long distances and lack of awareness about the importance of such services. It was concluded from this study that advocacy programs for creating awareness in communities is the possible solution of this issue. (Titaley et al., 2010). Although these results are from another part of the world, they do seem to be similar to the general problems seen in Pakistani societies as far as MNCH services are concerned.

A systemic review utilizing qualitative techniques of thematic data analysis aimed to view factors which affect or influence the community health worker performance. It included socio cultural factors, health seeking behavior of the communities, acceptance of CHWs, responsiveness to advice, social class of CHWs as a motivating factor, gender norms of the society, mobility of CHWs and their safety. All of the above assumed importance and relevance in the work of CHWs. This implicates that community perspective when sought prior to starting or initiating a CHW program can help in providing successes from start. (Kok et al., 2015). The results of above study are an important basis for conducting this research in Swat, Pakistan. No study has been conducted previously to explore the community perspectives.

SUMMARY:

It can be seen from the few identified studies above that there is paucity of literature on this subject, therefore this research aims to fill in the gaps in public health literature regarding community perceptions on community health workers programs in the Northern areas of Pakistan. This is important, as published materials reports violence against the health worker and it undermines all possible interventions aimed to help women and children of the area.

Importance will be given to general attitude of the recipients of this program, their understanding and relationship with the health workers and their viewpoints on family planning and vaccination. In addition, attitudes and mindset of the communities will be explored regarding their acceptance of community health workers.

CHAPTER 3 METHODOLOGY

3.1 RESEARCH QUESTION

What are the perspectives of mothers who received antenatal and postnatal care, and how do they view the community health worker program run by Swat relief Initiative (SRI-CHW program)?

3.2 AIM

This study aims to explore the perspectives of mothers who received antenatal and postnatal care, by the SRI-CHW program and to view their experience of child birth in Swat. It aims to understand the community perception regarding this program, to gauge its effectiveness as a public health intervention, and to provide suggestions for improvements.

3.3 OBJECTIVES

1. To review literature regarding the role of community health workers in improving maternal and child health and reducing maternal and infant mortality.

2. To conduct 18 moderate length semi-structured interviews to explore the perspectives of mothers receiving antenatal and postnatal visits, to explore their perspectives on SRI-CHW program, and to look at their experience of child birth in Swat.

3. To identify emerging and recurring themes during data analysis and to explore the community

Perspective using thematic content analysis.

4. To disseminate the results of the study to the NGO, to help them design research based policies.

3.4 EPISTEMIOLOGICAL APPROACH

An interpretivist`s approach was used in this research. It assumes that people are influenced by their socio-cultural beliefs and every day activity is linked to the freedom of choices they make (O`Donoghue, 2006). Forming themes and codes is the basis of identifying an interpretation of reality presented by research subjects and also the presumptions of the researcher. This forms the core of interpretivist`s approach. Once done, findings are interpreted in the light of literature (Elliot & Timulac, 2005).

The use of qualitative research is termed as rejection of a positivist approach to problems and subjects, as it aims to uncover social realities and constructs descriptive theories requiring interpretation. This is in contrast to a positivist approach, where one looks at rather shallow data and interprets the results in statistical terms. Data obtained from a positivist approach can be applied in future applications based upon significance of results. In addition, a positivist approach tends to attain a result, reduce diversity and divergence, whereas social constructions in interpretivism, seek to understand divergences as well and interpret the lessons gained. (Braun & Clarke, 2013). Apart from this, in interpretevism the knowledge is constructed through a lived experience whereas in positivism, it is the objective reality which already exists and can be replicated through same experimentation (Goldkuhl, 2012). The values of the researchers are also negotiated in all phases of research. Most of all interpretations are stationed in a particular context and moment (Cohen & Crabtree; 2008). So, in light of the above evidence it is clear that the researcher`s aim here is to seek the individual perspectives of Swati women who are recipients of SRI-CHW program. Interpretivism has a disadvantage of interpreter bias (Mühl,

2014). Bias has been a sore point of interpretivists paradigm. However, one researcher has termed this as researcher subjectivity used through the research process as a hallmark of creativity (Cohen & Crabtree; 2008). Bias can be minimized through journal keeping field notes, and voice recordings. Open ended questioning and pilot testing (Green & Thorogood, 2013). Bias has been minimized in this research by using open ended questions and pilot testing. Positionality of an "insider" or "outsider" are important concepts in qualitative research (Dwyer & Buckle, 2009). I have been working in Swat, and providing services as a volunteer obstetrician and gynecologist Therefore, I view myself as an insider and able to understand and relate to their experiences. This positionality despite the language barrier makes me more of an "insider" who is welcomed by the community rather than a complete stranger. As a clinician being engaged with these communities, I formally reiterated and redefined my role as a researcher. I also reflected upon my position to ensure that this did not affect data collection or interpretation. I encouraged the participants, to ask questions. Bias, was minimized by undertaking the following steps. Firstly, despite having read the information sheet at the time of consent, at the beginning of each formal interview, I briefly defined my role as a researcher. Secondly, recorded each interview and transcribed these word by word. Finally, the interpretation is based upon literature review.

3.5 METHODS

Study Design

The design is that of a qualitative study. Qualitative methods fill in a gap which can help us understand behaviors, attitudes and perceptions (Ulin, Robinson and Tolley, 2012). It is these perspectives which are important in gaining deeper insights into the program. Qualitative study

designs are particularly important in medical research as these methods rely upon linguistic information rather than numeric data it also helps in understanding the phenomenon better (Elliot & Timulac, 2005). Moderate length interviews using a semi-structured interview guide were used to collect information from the community. These perspectives are important as they come from the Swati women who are beneficiaries of this program. The aim was to uncover perceptions of these women, and their views about the SRI-CHW program.

Setting

Swat valley is situated in the north of Khyber Pukhtunkhwa province of Pakistan. The total area of the district is 5337 (Sq.Km) Square Kilometers. The total population is 2137,000. It is a mountainous region varying altitudes beginning from average height of600 meters above sea level originating in the South and rising up to 6000 meters towards North. The region also consists of Swat River, houses lush green valleys, meadows, orchids, winding roads, snow covered mountains and forests. The people living in Swat are comprised mainly of Pukhtuns majority belonging to the Yousafzai tribe, the other minorities include Kohistani (Dardic) and Gujjars. Pushto is the main language of the area. (PPAF ; 2015 p .7)

Swat Relief Initiative operates in nine villages of District Swat, Pakistan. Six villages are located in Saidu Sharif Union council and three in Islampur Union council. In Islampur Union council the villages are Sarkari Cham, Kasher Khel, and Katair. In Saidu Sharif Union council these include Chail Shagai, Baligram, Shaheenabad, Akhun Baba, Barkalay and Miangano Cham. Two hundred and fifty households are represented in each village. Swat relief initiative works in five sectors including health, education, vocational training, and provision of clean drinking water

and managing a destitute women's shelter (Bodakowski etal 2010). Interviews have been conducted in community homes to enable participants feel to feel at ease during the interviews.

Sampling

SRI-CHWS were asked to identify twenty women from each village, based upon the inclusion criteria. These households were identified through random selection in each village by CHWs. The CHWs were explained purpose of the study, inclusion and exclusion criteria. A visit was made by the researcher to each of the twenty community homes. Intention and purpose of the interview was explained to the participants. Two participants were finally selected from each village; according to the selection criteria. In addition, various points like age of the lady and her parity (number of children) were also kept in mind. Purposive sampling was utilized to identify the information rich participants in order to increase the credibility of the study (Patton, 2002).

3.6 INCLUSION CRITERIA

- The interviewee should be able to understand and communicate in Urdu as Pashto is the local language.
- Women who had been visited by the lady health workers in the last six months to receive antenatal and postnatal visits.

3.7 EXCLUSION CRITERIA

- Those mothers who declined to provide informed written consent.
- All vulnerable groups who are mentally handicapped or are uncomfortable due to term pregnancy.

- Those women who are aged 18 years or less.

3.8 RECRUITMENT

The potential participants were identified and introduced by the SRI-CHWs. However final selection was made by the researcher upon personally visiting each home. The potential participants were provided a participant information sheet. If they were unable to read, then it was read out to them and explained by the researcher. They were given one week to decide if they wanted to participate and discuss with their families. Almost all families who were contacted agreed to participate. A visit to community homes was made to make a preliminary assessment of the potential participants. The researcher visited their homes and decided on final participant selection depending upon their social status, parity and communication skills. This enabled the researcher to obtain a blend and variety of women for the interviews. During this process they were encouraged to ask questions regarding the study. Table I. shows the demographic characteristics of each participant.

TABLE I: PARTICIPANT CHARACTERISTICS

IDENTITY	**AGE in Years**	**AGE (at Marriage in Years)**	**PARITY**	**EDUCATION**	**SKILL**	**Training or skill gained (training institutes if any)**	**Independent Income**
P1	25-29	23	Para 3	Masters in Pakistan	Cooking, house	Wants a job in college as	Nil

				studies and diploma in education	management	a teacher	
P2	20-24	19	Para 1	Grade 10	Embroidery and stitching	VTC run by SRI	Yes
P3	15-19	19	Gravida 1	Grade 10	Embroidery and stitching	Sister	No
P4	20-24	18	Para 3	Grade 4	Embroidery and cooking and stitching	Mother	No
P5	20-24	19	Para 1	Grade 9	Embroidery, Crochet, stitching	Mother in law	No
P6	Not Known	13	Para 3	Nil Quran	Knitting, crochet and embroidery	Mother	No
P7	20-24	15	Para 1	Grade 9	Stitching	Sister in law	No
P8	20-24	18	Para 3	Nil	Stitching, embroidery	VTC run by SRI	No
P9	20-24	16	Para 1	Grade 3	Stitching	VTC run by SRI	Yes
P10	25-29	15	Para 6	Nil	Embroidery and stitching	VTC run by Bait-ul-mal	Nil

P11	15-19	13	Para 1	Grade 5	Nil	Nil	Nil
P12	20-24	17	Para 2	Matric (10)	Housekeeping stitching , embroidery	Self-taught	Nil
P13	25-29	18	Para 4	First year (11)	All	All self-taught	Nil
P14	25-29	18	Para 4	Matric	Embroidery and stitching	Mother in law taught	Nil
P15	25-29	15	Para 6	Quran	Stitching	Self	Nil
P16	20-24	15	Para 3	Nil	Stitching	Mother	Nil
P17	19-24	19	Para 4	Grade 5	Embroidery and Stitching	VTC run by SRI	Yes
P18	20-24	13	Para 5	Grade 3	Stitching	Mother	Yes

ABBRIVIATIONS:

P- Participants

Parity : Number of Children

NGO: Non-Government Organization

SRI: Swat Relief Initiative

VTC: Vocational Training Centre

3.9 DATA COLLECTION METHOD

Interviews were the primary method used. The researcher conducted and transcribed all interviews. Semi structured interview guide was used. Eighteen interviews were taken. Each Interview lasted approximately 25- 40 minutes. Semi structured interview`s help in exploring key areas. They are flexible and expand on information important to participant (Gill et al.,., 2008). The interviews were conducted in Urdu. They were tape-recorded, and later transcribed, checked and rechecked. Interviews, complementary field notes and observations were also recorded during visits to the community homes.

3.10 INSTRUMENT

The interview guide was designed based upon the researchers work as a volunteer Obstetrician and trainer of community health workers in the area since 2013 and upon literature review. It was designed with an aim to explore the experiences of antenatal care, child birth, postnatal care, breast feeding advice and contraceptive advice provided to the recipients SRI-CHW program. It investigated problems faced at the community level, especially related to community health worker visits and how they are perceived by the community. It explored help and guidance provided by the community health visitors, and vaccination uptake by the community. It focused on their perceptions and expectations regarding the SRI-CHW program. Interview guide is attached as APPENDIX G.

3.11 PILOT TESTING

Two pilot interviews from the community were undertaken initially. Pilot testing helped in the development and testing of interview guide. It also assessed the feasibility of the study. In addition, it helped in identifying the logistics and security issues involved (van Teijlingen and

Hundley, 2002). Since there were minor changes to the interview guide, these interviews were included in the sample.

3.12 ANALYSIS

Thematic content analysis was used. Data was analyzed by first gaining familiarization with the data, generation of initial codes, search for themes, review and definition of themes and then final results. Thematic analysis offers flexibility and provides rich and detailed account of data for interpretation (Braun and Clark 2006). A code book was developed based upon the coding framework. All transcribed interviews and responses were coded according to the code book. Coding frame work was reorganized to produce coherent and clear results. Sample transcribed interviews are also provided in the Appendices. See APPENDIX G.

TABLE II: CODE BOOK

THEMES/CATEGORIES	SUBTHEMES/SUBCATEGORIES	CODES
1.0 CARE DURING PREGNANCY	1.1 Antenatal and postnatal care prior to SRI-CHW program	1.1.1 Antenatal and postnatal care prior to SRI-CHW program, GOVT –CHWs program
	1.2 Home visits by CHW	1.2.1 Home Visits by SRI-CHWS
		1.2.2 Advice by the SRI-CHWs
		1.2.3 Supplements and Medications given by the health

		workers
		1.2.4 Knowledge of complications of pregnancy
		1.2.5 Relationship with the SRI-CHWs
	1.3 Financial Advice	1.3.1 Who bears the expenses of labour
		1.3.2 Importance of saving for delivery
		1.3.3 Perception on saving for delivery
	1.4 Transport Arrangements	1.4.1 Advice by CHW Transport Arrangements
	1.5 Nutrition	1.5.1 Nutrition Advice
		1.5.2 Any Change from the previous practices
		1.5.3 Use of Oil or Fat for cooking
		1.5.4 Use of Micronutrients
2.0 Delivery	2.1 Reasons for choosing the venue for delivery	2.1.1 Venue for delivery 2.1.2 Reasons for choosing
	2.2 Problems encountered	2.2.1 Problems related to delivery

		2.2.2 Money Spent
		2.2.3 Problems faced
		2.2.4 Comparison of Private versus government facility
		2.2.5 Preferred place of delivery
3.0 Postnatal follow up	3.1 Community perception of postnatal visits	3.1.1 Postnatal visits importance
	3.2 Infant feeding practices	3.2.1 Help in Infant feeding
	3.3 Vaccination perceptions by the community	3.3.1 Perceptions regarding vaccination
	3.4 Understanding of importance of family planning	3.4.1 Ideal family size
		3.4.2 Understanding of birth spacing

3.13 ETHICAL CONSIERATIONS

Written approval from the Swat Relief Initiative administration was obtained. See APPENDIX B. No other local approval was required. Approval was obtained from the ethics committee of University of Liverpool See Appendix C. Participants were provided a participant information sheet by the researcher, if they were unable to read the content, it was read to them by the researcher. They were given over one week to think about the research, and decide about their participation. Once contacted almost all were ready to participate. Upon final selection of the participants a witnessed thumb impression was obtained as written consent. The community visits were organized by Swat Relief Initiative, and security was provided by them. Dress code of the tribal area was abided. The participants were identified by codes to ensure their anonymity. Confidentiality was maintained through password protection on the computer used by the researcher and data will be held for five years. Appendices include: Approved Proposal, Approval by President of Swat Relief Initiative, Ethics committee approval by University of Liverpool, Sample participant information sheet, Consent sheet and Interview guide. Please refer to Appendix A, B, C, D, E and F.

CHAPTER 4 RESULTS

4.0 RESULTS

An overall look at the participant`s characteristics show a trend of teenage marriage for almost all participants and low level of education. However, all the participants were skilled in various local handicrafts. Data was analyzed using a thematic framework and the following themes were identified:

1) Care during pregnancy
2) Delivery
3) Postnatal follow up

4.1 CARE DURING PREGNANCY

In this theme the working of community health workers from Swat Relief Initiative (SRI- CHW) has been explored, through the lens of community perceptions. Antenatal visits and advice on various subjects deemed to be important in improving maternal and child health have been focused upon.

4.1.1 ANTENATAL AND POSTNATAL CARE PRIOR TO SRI-CHW PROGRAM

This sub theme was adopted to explore the views of women prior to the SRI- CHW program in their target area. Most women stated that before the SRI-CHWs program there were no regular home visits by health workers. Some women mentioned home visits by Government Lady Health

Workers (GOVT-CHWs), during the Polio campaign. The majority of participants in the study, reported greater feelings of satisfaction with the knowledge and care provided to them now by SRI-CHWs compared to the GOVT-CHWs program, also they told that GOVT-CHWs do not pay regular visits.

This is shown by the following responses:

P 14: " ……. from the government program they only come for polio vaccination".

P1 : "This program (SRI-CHW) is run by *Bibi*, it is run on time but the government lady health worker does not do her work sincerely and is *kam Chor*". (Translation: *Bibi* -Founder of SRI; *Kam Chor*– Slacker).

Regarding the GOVT-CHWs all participants commented that these workers do not visit regularly and neither do they provide health information. This was irrespective of their demographic particulars.

P10: "No, she does not come and if she does then she does not give us any information"

4.1.2 HOME VISITS BY CHWS

Regarding the working of the SRI-CHW program, it was described as useful by all the participants. Most respondents described almost five to six visits by the SRI-CHWs in each pregnancy, the pregnant ladies were provided with supplements, given vaccination and advice on danger signs of pregnancy and blood pressure was checked. Some of the recorded statements are given below:

P17: ..…... They give us injections and it is a lot useful. They weigh the babies, when we are pregnant we get tablets (supplements) check our weight, receive education for cleanliness, and hygiene……..When I was pregnant for the first time, she was there to check my weight, blood pressure and advised me on what to eat”..…... “When we go to see the doctors in hospitals….. We have to wait a lot….. for the doctor to see us”.

P4: “there is a lot of difference….. , in my first pregnancy I used to have a lot of pain I used to go to the hospital every month, and I used to feel that my body was always aching , …I feel in my other pregnancies (SRI-CHW support) I did not have any problem. We never got home injections no blood pressure checkups”.

When asked that if they are comfortable with CHW`s coming to their homes, all participants responded that they always welcomed the CHWs. They described cordial and friendly relationships with the CHWs in their area. In fact, participants were surprised by this question. In some instances, the CHWs were their relatives or neighbors.

P2: “NO, NO …….. I was so happy with her work, that at one point I wanted to join them, but my husband did not allow”.

4.1.3 FINANCIAL ADVICE

Saving for the event of delivery is important. The SRI-CHWs have advised the pregnant ladies to save a little bit each month so that are able to easily afford delivery expenses.

For example:

P6: **“**She told us to save money to be used in emergency; anything can happen”.

P3: “We save in case of emergency, ……SRI-CHW and other people also tell us to save”

4.1.4 TRANSPORT ARRANGEMENTS

Women are advised by SRI-CHWs to make transport arrangements for the event of delivery. Almost all ladies were aware of the importance of transport arrangements at the time of delivery. Most described it as readily available in the area and some families owned a car, others used a rickshaw or taxi in the time of need. Participants reported having mobile phone numbers of people who could drive them to the hospital in time of need. Transport was not considered a problem at all.

4.1.5 NUTRITION

Nutritional advice to the community is a very important component of the SRI-CHW program. According to the participants it has brought about a lot of awareness among community members regarding the need for a healthy diet. All participants quoted the benefits of using their own kitchen gardens, consuming flax seed, milkshakes, cooking oil as opposed to ghee and fruits.

P17 : "We have started oil instead of *GHEE* (hydrogenated oil) , And we have received a lot of dietary training here. We find the program very useful and have changed our habits. We use more vegetables like radish and fruits and have planted vegetables outside our house. This brings about savings".

P1: "Yes ……she keeps telling us if one woman eats one Roti (local bread), you should consume more than one. Take milk and juices at home".

P3: "After CHWs there is big change in our diet we use ULSI (Flax seed) and oil.

All but two participants confessed awareness about the benefits of cooking oil, but did not use in their diet because their husbands did not agree to the change.

4.2 DELIVERY

During the antenatal period, plans for delivery are usually discussed by the CHWs with the pregnant ladies, and sometimes they are escorted to the clinic/hospital. Experience of delivery was explored during the interviews. The aim was to be able to find out more about the services available in the area and how these are utilized by the community. Only a few ladies were delivered by local community midwives. The majority of respondents preferred delivery at the government hospital or private clinics. Some seemed satisfied and some who were slightly more aware and educated, disliked both government and private hospitals.

4.2.1 REASONS FOR CHOOSING PLACE OF DELIVERY

Most important reason to choose a facility was economic feasibility, and not SRI- CHW guidance. Those who chose to deliver with a traditional birth attendant described their ease and comfort level with traditional birth attendant. They also commented that the hospitals lack privacy. A normal delivery in a private hospital costs around Rs 2500 -4000/- almost equivalent to USD 25-40/- Where as a Caesarean section cost Rs 8000/- USD 80/-.

Some of the recorded responses are as follows:

P14: “The experience in government hospital was horrific; those who have money for private hospital go there,…. others who cannot afford private care go to government hospital”. (Which are practically free).

When asked why a TBA was chosen instead of hospital the response was:

P 8: I have never been to hospital. …… We face a lot of difficulties in the hospital”.

P10: “In hospital they charge a lot of money and we cannot afford it”.

4.2.2 PROBLEMS ENCOUNTERED

One participant who was most educated among the group severely criticized healthcare in the area including the private hospitals.

PI: “We are discharged within two hours of delivery…….no one bothers about us in the hospital, and the hospital in Swat is terrible and dirty and our children die of sepsis and land in neonatal intensive care unit as they cut the umbilical cord too early. When we see deliveries on internet and we compare, with what happens to us it is sickening”.

Others described private hospital care as better than government hospital (TEACHING HOSPITAL), but un-affordable.

Some responses of women who talked teaching hospital are illustrated below:

P6: “The hospital is very dirty and *bey haya* (lacks privacy), we went in the morning and no one saw us till evening …… there is so much dirt”

P2: “As I told you nursing care and cleanliness is not good in the hospital and the attitude of nurses is no good. No one cares only one *JAAN* (like a lifeless body) is lying down there, government hospital is like that”.

4.3 POSTNATAL FOLLOW UP

Postnatal visits by CHWs include postnatal examination, advice and support on breast feeding, vaccination and contraception. All women expressed this support as very useful and described it as a very positive activity.

4.3.1 POSTNATAL FOLLOW UP BY CHWS

All participants expressed their satisfaction about the postnatal visits by SRI-CHWs and found their visits very useful. They described that their babies were weighed, growth charts of each child was made and were provided vaccination. In addition, mothers were taught how manage diarrhea.

P8: "They came and weigh our babies and ……. Provide child vaccination and checkup".

P2: "Yes it is useful, they weigh our babies, if the babies have weight loss then they show us on growth chart, and advice to give supplements, they tell us how to give NIMKOL (oral rehydration therapy) to our children when they have diarrhea".

4.3.2 INFANT FEEDING ADVICE

All participants talked about the importance of breast feeding and some also described postnatal visits by SRI-CHWs to be very useful as they were well supported during this important phase. Some described exclusive breastfeeding information as useful. Some expressed their satisfaction over the help in technique of breast feeding. Others described benefits of breastfeeding. Examples are given below:

P11: "They (CHW) told me to feed the baby for six months at a stretch and then continue for a total of two years."

P13: "Yes she (CHW) trained us in breast feeding. I used to previously breastfeed the baby after every four or five hours, but she told me to feed frequently, and that helped my baby".

P1: "She (CHW) told us that breast feed is a natural vaccine, safeguards the baby".

P2: “We give our own milk to babies (because of that)…….. Baby doesn’t get diarrhea ……..baby doesn’t get infection, baby is intelligent… they (CHW) told all this”.

4.3.3 VACCINATION

All women and children in the program area are provided with mandatory vaccination within their homes. In addition, all women felt very satisfied and happy over their children being seen by the SRI-CHW on a regular basis and felt happy to see their children`s growth charts. One lady described the taboos that men folk had against Polio vaccine. However, these misconceptions were cleared by the health workers and social workers of SRI.

P14: “When we go to the hospital we waste money, we spend time as well and it takes too long. When my brother had a son, after three girls there was a big celebration and then my brother in law called and said “don’t give the baby any injections or polio drops”. He said don’t let them (CHW`s) in the house as they are American agents”. Finally, we were convinced by the SRI-CHW`s regarding the importance of Polio vaccination.

4.3.3 FAMILY PLANNING

SRI-CHWS provide family planning advice. All participants said they were given family planning advice. Most of them knew about family planning methods. However, some wanted the SRI-CHWs to provide them contraceptive pills and injections. The most popular method of contraception was injections. Despite this awareness a small minority of participants described an ideal family size being four or five children.

Example of this is given below:

P14: I will put injection

When asked does she know of any other methods. The reply was as given below:

P14: Yes, intrauterine contraceptive device and injections …….. but I will use injections.

They should (CHWs) provide us contraceptives".

SUMMARY

The results of this research show that all the participants viewed SRI-CHWs intervention as a useful activity. In comparison to the parallel program run by the Government of Pakistan, most participants replied that GOVT-CHWs do not visit them regularly and are only seen on Polio day when they give vaccine. They described SRI-CHW program to be more efficiently administered. They appreciated supplements provided to them by the health workers. While conducting the interviews I felt that the participants were very friendly, welcoming and full of life and had an excellent sense of humor. They realized the importance of savings for delivery, and need of emergency transportation. The majority women were receiving parallel care by doctors and SRI-CHWs. They were sharp to listen to the advice and adapted the lifestyle changes advised to them by the CHWs. Regarding nutritional advice they fully understood the importance of a healthy diet plan, and actually tried to adapt it according to their economic affordability. They appreciated the postnatal visits and started to breastfeed their children on the advice of SRI-CHWS. They were also complying to vaccinate their children regularly. Most women realized the importance of family planning, and they were currently using appropriate family methods.

The community was well aware and sensitized to danger signs of pregnancy. They generally understood the importance of avoiding delays in seeking timely help and knew the importance of antenatal care and postnatal care, vaccination and family planning.

CHAPTER 5 DISCUSSION

5.1 IMPLICATIONS OF THE FINDINGS

According to Din, Mumtaz & Attaullahjan lady health workers have been threatened and assaulted by the Taliban in Swat. Owing to this, communities out of fear did not allow the health workers in their homes. All forms of family planning advice and vaccination activities had to be halted (Din, Mumtaz & Attaullahjan; 2012). A prevailing perception that people in Swat are hostile towards community health workers as gauged from review of literature was negated by the research. It was a general observation that all participants were friendly, and welcoming towards the researcher and SRI-CHWs.

5.1.1 CARE DURING PREGNANCY

The SRI- CHW program seems to be well received by the participants of this study. It fulfills the intended benefits of creating awareness about danger signs of pregnancy. All participants are being regularly provided with iron supplements and vaccination during their antenatal period. A quantitative study Ahmed, Shah et al., showed significant improvement in the maternal and infant health in Swat District where a number of NGOS, are operating successful programs suited to the population. However, they concluded that the only drawback for these NGOs is that they are short termed and dependent on private funding; this is especially true for organizations not being run by the local population (Ahmed, Shah et al., 2012). If we consider SRI-CHW program from this angle we find that it has been running for over five years in the same villages.

Majority of the participants criticized the inefficient services provided to them by GOVT-CHWs. They mentioned that they only see the government health workers on special occasions. A similar impression has been reported by Bhutta & Memon who have severely criticized the

underutilization of the government community health workers. According to their estimate almost 30% of CHWs time is utilized in polio campaigns (Bhutta, Memon et al., 2008). This is an underutilization of an important work force which can bring about a major change in the health of a population.

The PDHS (PDHS 2012-13) strongly links lack of transportation, delay in decision making and poverty as the main causes of maternal mortality. All participants expressed no problems in arranging for transport in the time of emergency, saying that it was readily available in Swat. This could be a limitation of the sample as most villages in SRI-CHW program are located close to road networks.

Dietary advice to the community recipients is an intervention targeted to improve the overall dietary habits of the community. Globally nearly 800,000 neonates die annually due to maternal under nutrition. Small for gestational age, growth stunting and wasting and micronutrient deficiencies account for almost 3.1 million deaths each year. It is estimated that 15% of child mortality under 5 years can be reverted by nutritional improvements alone, some of these interventions include folic acid, Iron, calcium and micronutrient supplementation (Bhutta, Rizvi, et al; 2013) . A national survey conducted by Agha Khan University hospital showed the prevalence of anemia amongst pregnant women was 51%. In addition to that, more than half of all pregnant women were found to be deficient in Zinc, Vitamin A and D. Iron deficiency is related to preterm birth, hemorrhage, maternal depression and increased maternal and infant mortality (NNS ; 2011) . SRI-CHWs seem to be successful in implementing their nutritional program which includes messages on balanced food intake, micronutrient supplementation, kitchen gardens and use of flax seed.

5.1.2 DELIVERY

The decision of place of delivery rests on a number of community factors. These are related to traditional culture, lack of privacy, costs, fear of medicalization, perceptions regarding lack of quality care provided by the facilities and delays in referral (Bohren., Hunter etal ; 2014). All of the above factors are known to affect the overall outcome of delivery. Support by community health workers is important to address these issues. However, in this study in spite of there being a choice between government and private hospitals, participants reported dissatisfaction with both. This reflects upon the poor quality of care available in the area.

5.1.3 POSTNATAL FOLLOW UP

All participants were appreciative of the postnatal visits and information provided to them regarding breastfeeding, vaccination and infant growth monitoring. Many participants confessed changes in their neonatal and infant feeding practices. Breast feeding in itself is a huge step in reducing infant mortality and confers enormous benefits to the baby in terms of increased mother child bonding, prevention of infections, improvement in immunity and improved intellectual growth of the growing infant (Rollins, Bhandari et al., 2016). Low maternal confidence, poor breast feed positioning and latching, infant crying and lack of support are common reasons for abandoning this practice (Brown, Dodds et al., 2014). The role of community health workers in this domain has been shown to produce long lasting benefits upon the health of the communities (Perry, Zulliger, & Roger 2014).

All the participants showed relief regarding their children`s immunization by SRI-CHWs. A secondary analysis of Pakistan Demographic Health Survey data, aimed to find the role of health workers in immunization. It showed that in the past 12 months, a lack of visit by lady health

worker was associated with incomplete vaccination of the infants, whereas a visit in the last 12 months was significantly associated with increased vaccination uptake (Afzal, Naeem et al., 2016).

Community health workers play a vital role in creating awareness regarding contraception awareness and choices. A number of participants pointed towards the lack of provision of contraceptives by SRI-CHWS, and desired that these may be provided to them.

5.2 RESEARCH PROCESS

5.2.1 RESEARCH QUESTIONS, AIMS AND OBJECTIVES

This study is the first of its kind in the area, regarding the community perceptions on the work of community health workers. Interviews were conducted inside community homes and participants provided thick descriptions of their experiences. Questions related to female reproduction are considered to be private matters interviews ensure privacy as compared to focus group discussions. (Ritchi etal; 2015). The strength of this study was the openness and willingness of the participants to share information with the researcher.

5.2.2 POSITIONALITY

As described earlier the researcher has been involved in providing volunteer health care services in this area. This positionality made the researcher familiar and comfortable, with the area and local population. However, the researcher clearly described the purpose of interview and research nature of the visit. In general, the interviewing process was one of the most enjoyable experiences for the researcher, as it provided a new dimension and insight into the participant`s

lives and improved the reflective thinking process of the researcher. It has been observed that interviewing process in itself confers an improvement of listening skills of the researcher, whereby they feel more open to the world of their clients and show greater empathy (Green, & Thorogood; 2013).

5.2.3 SAMPLING DECISIONS & RECRUITMENT

Use of informants to help in sampling procedures is a technique which is established in qualitative research. Purposive sampling technique was used based upon the predefined criteria for selection of participants (Mays, 1995). The sampling process was fairly convenient with the help of SRI-CHW workers. They identified 20 participants initially from every village that fulfilled the inclusion criteria. In order to prevent bias in sampling two participants were selected by the researcher from each group of twenty.

5.2.4 RIGOUR

In order to ensure methodological accuracy, the following measures were employed. These included member checking, transcription process, debriefing and reflective commentary. Member checking was performed by respondent validation; this was ensured at the end of each interview by broadly repeating the messages given by the interviewee to confirm an accurate interpretation. (Noble & Smith, 2015). Dependability and trustworthiness was ensured by keeping the records, audio records of the interviews and weight age was only given to the transcription process and thick descriptions by the participants. Each interview was recorded, transcribed and reviewed to ensure omission of errors. Reflective commentary was performed at the end of each section by the research advisor who provided critique over research documents in

the online classroom. However, peer checking by another researcher was not performed as the design did not permit this (Noble & Smith, 2015).

5.2.5 TRANSFERABILITY

Transferability of qualitative research has always been a sore point for qualitative researchers. However, rigor of the research process does make it easier to solve the abstract question of transferability of qualitative research which is typically based upon small samples. Sample characteristics of this research point to an important fact that except for one participant all women were teenage brides. Almost half of the women were married before the age of sixteen years. All the participants were skilled in local handicrafts and some had even received training from SRI-Vocational training centre. These two findings independently are important results, regarding the characteristics of sample population, and can be transferred to the rest of the parent population (Ritchie et al., 2013). The recipients described positive changes in their dietary habits and attitudes towards antenatal and post-natal care. However, it is important to acknowledge that participants of the study were selected by SRI-CHWs, it is possible that they selected women who had only good things to say about the program, and this could have potentially introduced bias in the sample. However, if we compare responses by Participant (1) who was the most educated participant, with other participants one can feel the same level of positivity in all the responses.

5.2.6 LESSONS LEARNT

A peer reviewer or an associate researcher`s presence could help in researcher triangulation and validate the findings, by eliminating the potential bias as described above. Spending more time in the field and conducting the interviews by also observing the participant’s behavior over a longer

period might theoretically have resulted in a different outcome. In depth interviews could have provided longer periods of engagement with in the community.

CHAPTER 6 PUBLIC HEALTH RELEVANCE RECOMMENDATIONS AND CONCLUSION

6.1 PUBLIC HEALTH RELAVANCE

This study is the first of its kind in Pakistan, especially in the Khyber Pukhtunkhwa province of Pakistan. A lot of literature has been published and research done on the perspectives of community health workers program (Haines et al., 2007). However, none has focused only on the communities exclusively, the few studies which have been quoted have had community perspectives as a minor component and as part of a mixed study design.

Inequalities in health are a major global problem, especially in disadvantaged communities. Cultural and religious barriers make these problems worse. A qualitative study carried out in the Sindh Province of Pakistan revealed that the maternal and infant mortality in the surveyed area was very high, and the reason for this was socio cultural barriers which led to poor health seeking behavior among women (Khowaja, Qureshi, Sheikh, et al., 2016). Interventions such as SRI-CHW program appear to be attractive in conservative socio-cultural settings such as these since through trained community health workers this mindset can be addressed.

It is well known that health policies need to concentrate on serving people; these policies can only be effective if marginalized societies are studied and their perspectives are taken into account through research (Sheikh, George, & Gilson, 2014, p. 3) this study hence provides a platform for expressing community members perspectives on health intervention effectiveness as these are then evaluated by the people they are meant to serve.

6.2 RECOMMENDATIONS

FOR THE DONOR AGENICIES

- NGOs such as SRI that operate in certain remote areas such as Swat, can be strengthened by international donor organizations partnerships.
- The nutrition program adopted by SRI-CHWs seems to be well received by the recipients; however, its wider impact and compliance can be researched upon further. Messages like regular use of flax seed and saturated oils are unique to this program, in addition to provision of micronutrients and advice on maintaining a balanced diet and kitchen gardens. Similar messages can be used by other agencies, especially those working to improve nutrition.

FOR THE GOVERNMENT

- The government needs to have monitoring programs for the activities of the GOVT-CHWs to be able to gain more benefit from the existing system. It is suggested that communities in these areas be empowered to call on help lines and report to complaint cells. Monitoring and supervision of work by GOVT-CHWs needs to be evaluated using an evidence-based approach (Rabbani etal., 2016).
- It is well known that NGOs use a three C`s approach which is cooperation, collaboration and coordination. In addition, they use a bottoms-up strategy, which makes them more aware of the local problems; they employ local populations and establish grassroots linkages. This can greatly help the Government to implement reforms especially in remote areas like Swat, which has been conflict ridden territory as well. (Khan, Xiaoying, & Kanwal; 2016). The government can partner with organizations like Swat Relief

Initiative that are working to improve the lives of women and children in Swat, and according to this small sample, are appreciated by the recipient population.

- Hospitals in Swat, both in the Government and private sector, particularly labour rooms and maternity wards, need urgent up-gradation in their facilities and staffing systems. All the participants described the hospitals to be in a very pathetic state. Some of the descriptions actually presented them as unsafe places for delivery.
- The issue of teenage marriages needs to be studied further and this practice needs to be addressed within the communities.

FOR SWAT RELIEF INITIATIVE

- The NGO should form partnerships with the government and international organizations for overall improvement of health care in the area.
- As described by some of the participants, contraceptives should be provided to the communities. In order to do so it is suggested that SRI can officially collaborate with the health department in Swat.
- Engagement of men-folk in the communities for advocacy of nutritional issues can be planned in future.

6.3 FUTURE RESEARCH

In order to eliminate bias introduced by the positive attitude of the researcher, quantitative research on this program is suggested to find out the overall impact of SRI-CHWs in the lives of women and children in the target villages.

A quantitative study to see the impact of nutrition and dietary advice, and compliance by the recipients of the program, would provide evidence regarding the significance of this advice, in actually improving people`s nutritional standing.

6.4 CONCLUSION

An overall good impression of the people of Swat, the welcoming and positive attitude in homes visited and a positive report on the working of Swat Relief Initiative cannot be over stated. Since this was an exploratory study conducted on a small scale, further quantitative research can be performed to find out the impact of the SRI-CHW program.

It appears from this sample that the key functions of community health workers like community mobilization, statistical data collection, antenatal and postnatal visits, breastfeeding and infant feeding advice, high risk pregnancy identification, contraception and family planning advice, vaccination, growth monitoring and nutritional improvement messages, are all being performed efficiently by the SRI-CHW workers. The progress in creating health awareness can be enhanced by using culturally sensitive, pictorial manuals and village apps like multimedia, predesigned innovative culturally sensitive messages on maternal and child health, talking book, video viewing clubs e.g. On subjects like danger signs of pregnancy, growth charts and benefits of vaccination etc (Ghaznavi, Muneer et al.,; 2015). An Oxfam report on community health worker program in Baluchistan shows an overall beneficial effect upon women and children. However, identified several pitfalls, including less than one third of desired population coverage by the CHWs, failure to provide high quality services to the population served, which raises serious questions on its long-term continuity and cost effectiveness (OXFAM ; 2002). This finding is

somewhat similar to the GOVT- CHW performance in Swat. Although this is a small-scale study, it is suggested that Swat relief initiative working model may be studied in greater detail through further research to advocate implementation and replication of similar models in other communities in Pakistan and similar countries.

In the end it is important to note that Swat Relief initiative is being run on philanthropic and volunteer basis by the Princess of Swat (Bodakowski et al.,., 2010). The participants of this study were appreciative of this fact. She has broken the traditional rules of the "Pukhtun Women Nobility", by mobilizing communities in Swat. Improvement in health status of women and children in the remote areas of Pakistan can be brought about through investments in health and education, and also concentrated social and cultural efforts. As explained by T.Z Naqvi, in her Masters dissertation on Leadership roles of women, very few Pukhtun families allow their women folk even when the women are educated, to work outside their homes. Another important fact to note is that the conservative nature of Pukhtun society deepens with increasing social status and nobility (Naqvi, 2017, p.21). It must be emphasized that this study provides a thought-provoking example for other noble and high-status women in Pakistan who like *Bibi* (the founder of SRI) can be brought into the arena of development in order to speedboat a much desired social and cultural break for the disadvantaged Pakistani women and children.

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APPENDIX A: STUDY PROPOSAL

TITLE

Mother and child health in Swat, Pakistan: A qualitative studyto explore the perspectives of mothers who received home visits for antenatal and postnatal care and to understand their views on the community health worker programme by Swat Relief Initiative.

INTRODUCTION

The estimated maternal mortality rate in Pakistan is 276 deaths/100,000 live births (NIPS Pakistan, 2008). This reaches up to 500/100,000 live births in rural areas (Rehman et al.,., 2015).Infant mortality rate is 66/1,000 births (UN Children`s Fund, 2015). Advocacy among the community to foster understanding of danger symptoms during pregnancy is critical in preventing maternal mortality and morbidity. Conversely, a lack of such awareness gives rise to higher mortality and morbidity rates (Khan et al.,., 2013). According to WHO: "Community Health Workers should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers" (World Health Organization, 1989). The role of these workers cannot be emphasized enough in remote mountainous areas (Haq, Iqbal and Rahman, 2008). In Pakistan, community health workers are known as lady health workers. It was documented that in the Khyber Pakhtunkhwa Province (KPK), it was difficult to recruit community health workers. (Haines et al.,, 2007). Matters are made worse in areas like Swat where extremism is rampant; community health workers have been threatened and killed by terrorists for advocating the use of contraception and vaccination(Din, Mumtaz and Attaullah, 2012). A river valley situated in KPK, Pakistan-Swat has undergone several disasters including the Taliban insurgency of 2009, large-scale flooding, and recently, a devastating earthquake. In this backdrop Swat Relief Initiative (SRI), a non-government organization was launched.SRI works in the area to improve the lives of women and children through the promotion of education, healthcare, and sustainable environmental and economic growth.Lady health workerswere recruited directly by utilizing theinfluence of the granddaughter of the Wali (local ruler) (Bodakowski et al.,., 2010).These Lady Health Workersprovide antenatal care and postnatal services to women in their own homes. In addition, pickup high risk cases and provide timely referrals. This study aims to explore the perspectives of the recipients, of this community health worker programme.It aims to understandend-user opinion onthis public health intervention, thereby gauging its effectiveness, as an intervention that may be applied in other similar settings.

LITERATURE REVIEW:

A number of studies have been conducted to cover the working of community health workers in Pakistan. These studies mainly concentrate on the barriers community health workers are forced to face (Rehman et al.,., 2015), (Diwan, 2013). Recipient's perspectives studied in Uganda demonstrated high appreciation of maternal and child interventions conducted by community health visitors. The study included interviews and focus group discussions including health workers, community leaders and mothers (Okuga et al.,., 2014). In Pakistan a national level study utilizing the mixed method approach and a large sample of 4,277 women showed that the use of reversible contraceptive uptake was much higher in areas served by lady health visitors, than in areas where community health workers were not available (Douthwaite, Ward. 2005). A qualitative study, undertaken in Swat,on community perceptions of oral polio vaccinations showed deep seated religious and cultural barriers which undermined attempts to eradicate polio. Researchers utilized six focus group discussions with the community, and six interviewswith lady health visitors. (Murakami etal., 2014).In Punjab, a qualitative study tested on a varied sample of 18 pregnant women utilized over a hundred interviews with various family members, and revealed that caste affiliations, and mother-in-laws, significantly impacted domestic health. Women of lower castereceive little or no care, similarly uptake of maternal health services is hugely dependent upon social status of the family (Mumtaz etal., 2013). Studies by Murakami etal. (2014) and Mumtaz etal. (2013) show that community health workers can be utilized to create a change in the mindsets which affect the uptake of health interventions. This study is aimed to explore the experiences and perceptions of the recipient women who have benefited from the program, as a public health intervention. Community perspectives of the Pakhtun society especially in Swat regarding the role of health workers have not been recorded in literature. This study is expected to fill this gap.

RESEARCH QUESTION

What are the perspectives of mothers who received antenatal and postnatal care, and how do they view the community health worker programme run by Swat relief Initiative operated in nine villages of Swat?

AIM

This study aims to explore the perspectives of mothers who received antenatal and postnatal care,and to record their views on the community health worker programme operated by Swat Relief Initiative, which targets to improvement of mother and child health in nine villages of Swat. This study aims to understandthe community perception regarding this program, to gauge its effectiveness as a public health intervention,and provide evidence-based suggestions for improvements.

OBJECTIVES

1. To review literature regarding the role of community health workers in improving maternal and child health and reducing maternal and infant mortality.

2. To conduct 18 moderate length semi-structured interviews to explore the perspectives of mothers receiving antenatal and postnatal visits, to explore their perspectives on the community health worker initiative.

3. To identify emerging and recurring themes during data analysis and to explore the community perspectives, using thematic content analysis.

4. To disseminate the results of the study to the NGO, to help them design evidence based policies.

EPISTEMIOLOGICAL APPROACH

This is a qualitative study. An interpretivist's approach will be used to explore the perspectives of the community members who are recipients of this programme. It assumes that people are influenced by their socio- cultural beliefs and every day activity is linked to the freedom choices they make (Donoghue, 2006). It has a disadvantage of interpreter bias (Mühl, 2014). Bias will be minimized by using open ended questions and pilot testing (Green & Thorogood, 2013).

POSITIONALITY

I have been in working in Swat,and providing services as a volunteer obstetrician and gynecologist.Therefore, I view myself as an insider and to be able to understand and relate to their experiences. This positionality despite the language barrier is more of an "insider" who is welcomed by the community than a complete stranger (Dwyer & Buckle, 2009). As a clinician being engaged with these communities, I will need to formally reiterate my role as a researcher to encourage openness, and will make them comfortable to ask questions. In addition I will reflect upon my position as a researcher and not let any bias as a clinician to affect the results.

METHODS

Design

The design is that of a qualitative study.Qualitative methods fill in a gap which help us understand behaviours, attitude and perceptions. It is these perspectives which are important in gaining deeper insights into the programme (Ulin, Robinson and Tolley, 2012).

SETTING

Swat Relief Initiative operates in nine villages of District Swat, Pakistan. Six located in Saidu Sharif Union council and three in Islampur Union council. Interviews will be conducted in the community homes to enable participants to feel at ease during the interviews.

Sampling

Community health visitors will be asked to identify twenty women from each village, based upon the inclusion criteria. These women would have been visited by the community health visitors in the past six months. These women will be asked to participate in the study and provided with the participant information sheet by the researcher. Upon the agreement, two participants will be finally selected from each of the nine villages for the interviews. Purposive sampling to identify appropriate candidates will be performed. (Marshall, 1996).

INCLUSION CRITERIA

- The interviwee should be able to understand and communicate in Urdu as Pashto is the local language.
- Women who have been visited by the lady health workers in the last six months to receive antenatal and postnatal visits.

EXCLUSION CRITERIA

- Those mothers who decline to provide informed written consent.
- All vulnerable groups, i.e. mentally handicapped and those uncomfortable due to term pregnancy.
- Those women who are aged 18 years or less.

RECRUITMENT

The potential participants will be identified and introduced by the community health workers. However the final selection will be made by the researcher upon personally visiting each home. The potential participants will be provided a participant information sheet. If they are unable to read, then it will be read out to them by the researcher. If they willfully decide to participate, only then they will be recruited. If they agree to participate then they will be contacted. They will be encouraged to ask questions regarding the study.

DATA COLLECTION METHOD

Interviews will be the primary method used. The researcher will conduct and transcribe all interviews. Semi structured interviews guide will be used. Eighteen interviews will be taken. Each Interview will last approximately 25- 40 minutes. Semi structured interviews help in exploring key areas. They are flexible and expand on information important to participant (Gill et al.,., 2008). The interviews will be conducted in Urdu. They will be tape-recorded, and later transcribed and checked and rechecked. Interviews, complementary field notes and observations will be recorded during visits to the community homes.

INSTRUMENT

The interview guide will consist of the following points. It will aim to explore the experiences of antenatal care, child birth, postnatal care, breast feeding advice and contraceptive advice provided to the recipients. It will investigate problems faced at community level, especially related to community health worker visits and how they are perceived by the community, help and guidance provided by the community health visitors, vaccination uptake. It will focus on barriers which they face socially to seek timely help and suggestions for improvement, perceptions and expectations of the community members.

PILOT TESTING

Two pilot interviews from the community will be undertaken initially. Pilot testing will help in the development and testing of interview guide. It will also assess the feasibility of the study. It will also help in identifying the logistics and security issues involved (van Teijlingen and Hundley, 2002). If there are no or minor changes to the interview guide, then these interviews will be included in the sample.

ANALYSIS

Thematic content analysis will be used. Data will analyzed by first gaining familiarization with the data, generation of initial codes, searching for themes, review and definition of themes and then finalresults.

Thematic analysis offers flexibility and provides rich and detailed account of data for interpretation. (Braun and Clark , 2006).

ETHICAL CONSIDERATIONS

Written approval from the Swat Relief Initiative administration will be obtained. No other local approval is required. Approval from ethics committee of the University of Liverpool. Participants will be provided a participants information sheet in Urdu by the researcher. If they are unable to read the content, it will be read to them by the researcher, and thumb impression will be obtained.The community visits will be organized by Swat Relief Initiative, and security will be provided by them. Dress code of the tribal area will be abided. In addition the cultural norms of the area will be observed. The participants will be identified by codes, and not their names to ensure anonymity. Confidentiality will be maintained through secure data storage for five years.

RESEARCH OUTCOME:

The outcomes will be an understanding of the perceived benefits or disadvantages, of this program in reducing maternal and infant mortality in the target villages. In addition it will provide Swati community perceptions, and insight into the communityregarding their reproductive lives. It will provide suggestions for further improvement of the program.

COST Travel cost US$ 200/-; Translation services US$ 300/-; boarding and lodging US $ 800/-; Printing and Courier US$ 300/-. Total cost US$ 1600/- . Self funded .

TIME

Proposal approval: July 2016, Ethical approval: July 2016, Literature review, pilot testing, data collection& analysis: Aug – Sept` 2016, Full of Draft Dissertation: 28th Dec 2016, and Final Submission: 28th Jan 2017.

WORD COUNT: 1995

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APPENDIX B : APPROVAL BY SWAT RELIEF INITIATIVE

SWAT RELIEF INITIATIVE
PO BOX 860
PENNINGTON, NJ 08534

TO: THE INTERNATIONAL ONLINE RESEARCH ETHICS COMMITTEE
UNIVERSITY OF LIVERPOOL
UNITED KINGDOM

AUTHORIZATION FOR SUPPORT AND FACILITATION TO CONDUCT RESEARCH IN EIGHT VILLAGES OF SWAT

Swat Relief Initiative improves the lives of women and children in Pakistan through healthcare, education, economic growth and a sustainable environment. This nonprofit organization also empowers societies through community development, social mobilization and awareness programs to
help them achieve a better quality of life.

As President and founder of Swat Relief Initiative (SRI) I hereby extend my support and approval to Dr. Ambreen Naveed Haq to conduct research in our program villages in Swat. She is a volunteer with Swat Relief Initiative.

Our Community Health Workers and staff will provide all facilitation necessary for her visits and interviews. We will help connect her to the recipients of our program in order to conduct the proposed research. Our ground staff will be responsible for her security, and, in addition, we will provide her with logistical support, including help with recording data. I provide assurance regarding maintenance of the confidentiality of the data by Swat Relief Initiative staff. Dr. Haq does not require any other local or national approval, as Swat Relief Initiative is an independent NGO registered to operate in Swat.

Sincerely,
Zebunisa A. Jilani
President, Swat Relief Initiative
Email: zebu@swatreliefinitiative.org
Phone: +1 (440) 382-9188

APPENDIX C: APPROVAL BY UNIVERSITY OF LIVERPOOL:

ETHICS COMMITTEE APPROVAL

Hi Ambreen,
I am happy to inform you that your ethics application has been approved. Well done! You may now translate the relevant documents and begin your study.

It is very important that your study proceeds as you have described in your ethics application (approved documents are attached here). You must inform me immediately if there are any problems. If you wish to make any changes to any aspect of your study you must discuss this with me first.

Best wishes and well done again,

Caryl

Ambreen UoL ETHICS APPROVED DOCUMENTS.zip (385.933 KB)

APPENDIX D : PARTICIPANT INFORMATION SHEET

1. **Title of Study**

   Mother and child health in Swat, Pakistan: A qualitative studyto explore the perspectives of mothers who received home visits for antenatal and postnatal care and to understand their views on the community health worker programme by Swat Relief Initiative.

2. **Version Number and Date**

VERSION: **I**

DATE : 27th AUG 2016

3. **Invitation**

DEAR PARTICIPANT:

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read or listen to the following information carefully and feel free to ask me if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with your husband , relatives and friends if you wish. I would like to stress that you do not have to accept this invitation and should only agree to take part if you want to. Thank you for reading /listening to this.

YOURS SINCERELY

DR AMBREEN NAVEED HAQ

4. **What is the purpose of the study?**

This study aims to explore the perspectives of mothers like you who received antenatal and postnatal care, and to record your views on the community health worker programme operated by Swat Relief Initiative, currently operating in nine villages of Swat. This study aims to understand the community understanding regarding this program, to assess its effectiveness as a public health intervention, and provide suggestions for future improvements so that you can benefit more with such interventions.

5. Why have I been chosen to take part?

You have been chosen as you have been a recent beneficiary of this program, and other women from target villages will also be visited.

6. **Do I have to take part?**

No , your participation is entirely voluntary and you can stop at any point during the interview , you do not need to give an explanation for doing so.

7. What will happen if I take part?

I shall take your interview at your residence.We would require a quite atmosphere, you can have your family members present if you feel like. I will tape record this interview. I will ask questions about your views on the various components of the community health worker programme. I will also seek your suggestions regarding thisprogramme. I will be asking all these questions my self as this a part of my degree from University of Liverpool in Public health. The interviews will last for 30-45 min. You will be provided with a consent sheet which will be read out to you as well, and if you decide to participate then you will be asked to sign or provide your thumb impression, for record keeping.

8. Expenses and / or payments

There are no direct benefits of this study to you in the form of money or gifts , however your input will strengthen the existing programme which will eventually provide benefits to the whole community.

9. Are there any risks in taking part?

There are no imaginable risks involved , however if you feel uncomfortable at any point you may withdraw.

10. Are there any benefits in taking part?

There are no intended benefits to you directly. However your input will strengthen the existing programme which will eventually provide benefits to the whole community.

11. What if I am unhappy or if there is a problem?

You can stop this interview at any point , I will not question you and neither it will affect your status as a beneficiary of future community health programme recipient of Swat Relief Initiative.

I would like to state clearly that "If you are unhappy, or if there is a problem, please feel free to let me know and I will provide all help. If you remain unhappy or have a complaint which you feel you cannot address to me then then you should contact the Research Participant Advocate (USA number 001-612-312-1210) or email address liverpoolethics@ohecampus.com). When contacting the Research Participant Advocate, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make."

12. **Will my participation be kept confidential?**

You will be interviewed, and this will be tape recorded, I might take photographs with your permission. Your names will be coded and so would be the village names. Confidentiality will be maintained through secure data storage for five years.

Disclosure of criminal activity

There is no SUCH PROBLEM

13. **Will my taking part be covered by an insurance scheme?**
    Participants taking part in a University of Liverpool ethically approved study will have cover.

14. **What will happen to the results of the study?**
    You can have the results of the study if you wish to read them or have a copy, I shall personally send you an electronic copy or hard copy upon request. The study will be published as dissertation by University of Liverpool, and if possible in a Public health journal. Since your identities will be masked you will not be identifiable in these publications.

15. **What will happen if I want to stop taking part?**
    You are free to withdraw at anytime, without explanation. Results up to the period of withdrawal may be used, if you are happy for this to be done. Otherwise you may request that They are destroyed and no further use is made of them.

Who can I contact if I have further questions?

DR AMBREEN NAVEED HAQ

Hno 8/1 , St 7 , Sec F-7/3 Islamabad

Ph : 92-0300-8562320

APPENDIX E

UNIVERSITY OF LIVERPOOL

in partnership with LAUREATE ONLINE EDUCATION

INFORMED CONSENT FORM FOR RESEARCH STUDIES

Title of Research: Mother and child health in Swat, Pakistan:

A qualitative studyto explore the perspectives of mothers who received home visits for antenatal and postnatal care and to understand their views on the community health worker programme by Swat Relief Initiative.

Project:Dissertation

Researcher: DR AMBREEN NAVEED HAQ

	Please initial box
1. I confirm that I have read and have understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected.	☐
3. I understand that, under the UK's Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.	☐
4. I understand that I will not be identified or identifiable in any report subsequently produced by the researcher	☐
5. I accept that taking part in an study intervention is voluntary and confirm that any risks associated with this have been explained to me	☐
6. I agree to take part in the above study.	☐

7. I agree to having the interview/ digitally recorded ☐

Participant Name	Date	Signature
Name of Person taking consent	Date	Signature
Researcher	Date	Signature

The contact details of lead Researcher is: **DR AMBREEN NAVEED HAQ**

Ph : 03008562320

APPENDIX F:

INTERVEW GUIDE

PARTICIPANT IDENTIFICATION: _____

DATE OF INTERVIEW: _____

START TIME: _____

END TIME: _____

INTRODUCTION

- Greeting
- Explanation of the procedure of interview. E.g :Recording and hand held notes.
- Reiteration of the fact that the interview can be stopped at any time if the respondant is uncomfortable , interview will either be stopped and resumed later at a suitable time or another respondent from list will be taken. .

PERSONAL CHARACTERISTICS

Age

- Age at Marriage
- If a teenage marriage (as is the custom), then please explain reasons.

Education & Skills

- Level of education
- Reason for leaving school
- Other skills
- Vocational skills ; If Yes
- How did you learn these?

SECTION I

CARE DURING PREGNANCY

- **PREVIOUS PREGNANCIES** Number of children
  ANTENATAL CARE BEFORE SWAT RELIEF INITIATIVE PROGRAMME
- Please describe your previous pregnancies in detail in relation to
  Antenatal care you received previously
- Were there home visits by community health workers.If yes, then how was your experience?
- If the community health workers came then please describe how did they care for you and where did they come from (government or private)
- Please describe any difficulties during your past pregnancies e,g HTN , Diabetes and other medical problems.
- Describe the event of delivery; including place of previous deliveries.
- Describe your post natal period, any difficulties if any faced.ANTENATAL CARE AFTER SWAT RELIEF INITIATIVE COMMUNITY HEALTH WORKERCan you explain how was your experience in the present pregnancy or recent pregnancy with SRI community health workers
- Describe any comparisons with the previous pregnancies(with or without support).
  Present Pregnancy
  - How did you find out your pregnancy (diagnosis of pregnancy)?
  - Who were the first people you informed about your pregnancy?
  - What made you decide to consult the community health worker or how did she find out about you?
  - What advice was given to you by the health worker?
  - Tell me about any medication given to you?
  - What was the advice given to you?
  - Do you think you knew this before knowing your health visitors?
  - Describe the frequency of visits you received
  - What happened at each visit
  - Describe your knowledge of what can go wrong during the pregnancy and at the time of delivery. E. g bleeding, fits, loss of fetal movement; fever post delivery
  - How do you know this?
  - Describe your relationship with the CHW

SECTION II

FINANCIAL RESOURCES AT THE TIME DELIVERY

- How do you bear the expenses of pregnancy and labour.

Do you think it is important to save for delivery? If yes Why ?If No Why not?

- Why do you think it is important to save for delivery?
- Please describe advice provided to you by the CHW in this area
- How do you save for delivery?

SECTION III :DELIVERY

Question for Postnatal Lady

- Describe your place of delivery
  If Home delivery reasons for choosing this place?
- If Hospital delivery reasons for choosing
- Describe problems faced, If any?

Questions for Antenatal Lady

If undelivered? What is you proposed place of delivery, please elaborate your future plan

SECTION IV :TRANSPORT

- Suppose in the event of an emergency like excessive bleeding; headache ; fits how would you manage to reach the hospital?
- Suppose in case there is an emergency, describe means of transport readily available in your in your village at odd hours ?
- Do you keep phone numbers of transporters ?
- What advice was given to you by the CHWs to arrange transport efficiently.

SECTION V: NUTRITION

DIETARY ADVICE

- Describe your diet starting from breakfast to dinner
- Is there a change in your dietary habits? How have you improved your diet after contact with the community health worker?
- Describe general benefits following the advice of the community health worker
- Have you changed dietary pattern including poor quality oils and spices

MICRONUTRIENTS

- Did you ever use supplements during your previous pregnancies ; If yes please describe?
- Please describe any tablets you were provided by Community health workers from Swat Relief initiative.

SECTION VI :POSTNATAL FOLLOW UP

- How would you rate the importance of postnatal visits you received?
- Describe your infant feeding practice
- Describe support provided by the health worker in helping you how to breast feed.
- How would you explain the importance of postnatal visits and contacts with the community health workers in the looking after of your babies?

  (care of cord , vaccination; feeding advice; temperature advice; ghutti)

- Please explain what did your other family members do before such visits , explain the problems faced from the experience of your older family members like sisters and relatives.
- Please narrate an incident where you were supported by the CHW

SECTION VII: VACCINATION

- Describe your understanding of vaccination practice for babies
- Describe support from the CHW in vaccination

SECTION VIII: FAMILY PLANNING

- Describe an ideal family size (number of children)
- Describe your understanding of birth spacing
- How were you guided by the CHWs on birth spacing?
  Are you using any method for family planning if postnatal
  If antenatal describe your plan to use a method of family planning
- Please describe steps taken to ensure birth spacing

SECTION IX: COMPARISON

- How would you compare the course of previous pregnancies without community health visitors advice as compared to the one/ones with CHWs advice ?

- Please explain your delivery experience, and if you have had previous experiences how would you rate this as compared to previous pregnancies ?

SECTION X: MATERNAL MORTALITY

- Can you recall a maternal death incident in your village or nearby village in the last one year
- Can you recall of a lady dying during child birth amongst your village ladies or nearby villages in the last five years , please tell more about it.

SECTION XI: SUGGESTIONS

- What do you think about Swat Relief Initiative community health worker programme , and do you have any suggestions for improvement.
- Any thing else you would like to tell me?

Thankyou for your time and participation.

Greeting .

APPENDIX G

TRANSCRIBED INTERVIEWS

CODE	PARTICIPANT ID P1	RESPONSES
		R : Previously did you receive any health workers
1.1.1.		P1: the government workers ah …….. used to come but not regularly. They never used to come regularly not before and not now . They some times come on polio vaccination days. Very occasionally
		R: What is the situation now?
1.2.1		P1: we feel really relaxed now. Our children are vaccinated on time and we don't even have to keep a track . and our caring lady checks our children`s weight , advices us to give panadol to children before vaccination. Checks our blood pressure and every thing happens at home.
		R: yes tell me about that time…
1.1.1		P1 : previously we had to visit the hospital a lot some time due to headache needed to go to the hospital after ten days or back ache after two weeks and again and again to private and government hospital , since the start of this program Mashallah we don't need to go out of the house and secondly when our caring lady come to our house then we have her number and we call her and discuss our problems. …… Now we don't visit the hospital so frequently some times we go after two months or three months. We go for antenatal checkup but blood pressure , weight and other minor problems we deal at home
		R : please tell me the benefits now
1.2.2		P1: you see in Our Pakistan the doctors donot provide care and personalized service to their patients which is the requirement of patients. And humans don't get better with medicine only , it is the doctors caring attitude and consolation which also helps in recovery. So when she comes to our homes and tells us to drink milk and eat apples do this do that then when we follow their advice we feel a lot of benefit

P1: interrupts …. look at my children the difference between the elder child and youngest the health of the younger child is much better than the elder child, since she has come we have started taking
1.2.2 fruit in the pregnancy . and taking medicines on time .

P1: I told her because I had three children already and these are enough, and I did not want to carry this baby , but she gave me reassurance that now nothing can happen and your life can be in danger soo---I decided to carry on.

R: so please tell me did she give you some medicine

1.2.3 P1: no no she gave me Fefol vit , panadol all these she gave me

R: How do you describe your relationship with the CHW friendly or not.

PI: When she works she becomes my teacher and tells us to do this do that do this do that---- and if she has told us any thing earlier she first listens to it and if we forget something she reminds us and tells us that this is like this and that after this when she is finished she
1.1.1 becomes our friend .

R: So that means shes like a friend and not an outsider… many years ago I read a paper about swat and over there it was said that in Swat lady health programme cannot be successful as the "lady health workers in Swat are considered to be not very nice women".

1.1.1 PI: (Appears shocked and asks) WHY

P1: this programme being run by Bibi is run on time , but the government lady health worker does not do her work sincerely and is
1.1.1 KAM CHOR I want to tell this.

R: how do you cater for the expenses of your delivery

PI : Our husbands usually know and they keep money aside. Our
1.3.1 husbands saves from the salary

R: Do you think it is important to save for the delivery

P1: Any emergency can happen

ANHAQ: Has she ever advised you regarding this

P1: Yes yes she tells us that keep savings in your house before delivery and if you know that you cannot afford we Mashallah don't have any problem…… but this is her way of telling that if you have any complication like delivery before time or any other problem then
1.3.3 one should have enough at home.

R: So …. Please tell me when did you have you last delivery …… you told me in private hospital

What were the charges ??

2.2.2	R1: 8000 for normal delivery
2.1.2	P1: ok for normal delivery so please tell me why did you chose this hospital for delivery like why this particular hospital
	P1: because this is the only hospital in Swat
	R: Is this the only hospital in Swat
2.1.2	P1: No there are more but this has more facilities
	R: like what facilities
2.1.2	R1: I mean if there is an emergency or any thing then there are doctors all are there and they contact other doctors as well, patients have their own luck as well my delivery went very well but this is the biggest hospital of Swat. one cannot go to the government hospital as government hospital is worse than Shifa hospital
	R: How do you arrange for transport?
1.4.1	P1 : they will phone the taxi etc…
	R : do you have arrangements for a taxi you can call for it
1.4.1	P1: No they will have to go out and get a cab
	R: are they present in odd hours
	P1: no there is one taxi stand and we can use rickshaw as well
1.4.1	P1: Rickshaw you get in the middle of night as well……
1.4.1	Yes one odd rickshaw is available but most people have phone numbers of the taxi drivers saved in their phones they call them and they come from hospital you easily find ambulance service outside the hospital we have EDHI ambulances they are very caring
	R: Do they charge
1.4.1	P1: Yes if others charge Rs 500 EdHI ambulances charge Rs 50
	R: This is good and they provide service in far flung areas as well
1.4.1	P1:Yes I think so.
	R: Do you feel that there is a change in your dietry habits after meeting the CHWs
1.5.2	P1: Yes there is an improvement. Yes she keeps telling us if one woman eats one Roti , you should consume more than one. Take milk and juices at home,
	R: So what do you drink at home
1.5.2	P1: Jeee….. I have banana shake , apple shake that's all
	R: ……. Do you think post natal visits are important or not?

P1. They are important for baby weight , and physical examination. feeding advice and bleeding , we come home after two hours of delivery no one bothers about us laughs ……. , and the hospital in Swat is terrible and dirty …….. laughs …… and our children die of sepsis and land in nursery as they cut the cord very early. ……..

2.3.1 Babies are kept in nurseries for days .

Place of Delivery

When we see delivery cases on internet and when we compare those videos and doctors with what happens to us and fresh minded people see these and see what happens to us ……..it is sickening , like over here one doctor comes does a P/V then another one comes and asks have you done p/v of this one and she repeats it , and third one comes and repeats p/v. When you are fully dilated then they call the doctor and tell you not to push…….. laughs …… because the doctor has not reached yet, and when the doctor comes they make you push, I know that I have one hour, they gave me two nalbain injections and she made me push too much. In private hospitals this is the state. I think this is not a nice way …… it is good that you have

2.2.3 told me this ……

I was thinking if I was a reporter I would write a report about this private hospital in the news paper.

R :Were you told about breast feeding and

P1: She told us that breast feed is the first vaccine , box milk is not good , it safeguards the baby. Don't give tin milk to the baby She tells us to keep the baby so warm that an adult feels warm in that

3.2.2 temperature

R: What does she tell you about ghutti

P1:No it is not good ,

R : Now tell me what did the previous family members do

P1: They used to give ghur, green tea to babies…

R: Do you feel previously it was good

R: No , This time is much better , my sisters delivery in the hospital was followed by nothing , I feel lucky Previously there as no service for mother or baby or check up.

R: What do you understand about vaccination

P1: It is very important , for both mother and the child , we are supported by CHWS since this programme our children are vaccinated

3.3.1 at home . we also know the benefits.

R: Do you feel supported regarding vaccination

		P1: Yes it happens all at home since this we don't need to go to
3.3.1		hospitals and don't need to remember about childrens vaccination
		R: What is your idea of ideal family size.
3.4.1		P1: Laughs …….. This is it . This is the best not more,
		R: what are you choosing?
3.4.2		P1: We are using condoms
		R: DO you think it is ideal
3.4.2		P1: No I don't like to use any they all failed
		P1: No my youngest son came by condom burst
		R: were you told about this
3.4.2		P1 : she tells me , but I take three months injection , don't take pills as my stomach is out of order , I get weight gain with injection, I had copper T and I had a baby with it, laughs …….it came with babies head. I don't get enough feed with pills. Laughs …….. doctor told me not to walk too much and I exerted with it and it slipped from its place.
		R: So how did you find out
3.4.2		P1 : I went to doctor and said that you told me chances are less but it happened.
3.4.2		P1: I went to the doctor and told her iam pregnant I had vomiting I told her I am alone and it has come with copper T when you said chances of pregnancy were low , I do all the work in the house , doctor said leave it to God now nothing can happen so I left to God.
		R: did your doctor r not remove IUCD
		P1: now I took three months injection and have amenorrhea
		R: Do you belong to this village only. Do you know of anyone who died in pregnancy in your knowledge in last one year or last five years.
4.1.1		P1: No cannot recall
		R: in last five years
		P1: No I don't know.

P10

PARTICIPANT	**CODE**	**RESPONSES**
P10		R: What can go wrong in pregnancy?
	1.2.4	P10: Blood pressure can go high ; one can have miscarriage . and heavy work can be a problem.

R: Who told you that

P10 : Rah (CHW) …. told me this …. Thinks …. and I also knew my self

R: Describe your relationship with chw .

1.2.5 P10 : She tells us good things and gives injections and advice…….

R: Please tell me weather other people in Swat welcoming to the lady health workers or they donot like them ?

1.2.5 P10 : People in Swat are good, we love to have chws and never object it is for our good

R : Savings: how do you save for emergency?

1.3.1 P10: We have no worries husband does all arrangement

R:We cannot save much , but husband does every thing .

1.3.1 P10:Laughs and says when there is no money so where do I save from. Laughs

R: Does CHW tell you

P10:No she has never told me any thing

R: What is the Place of delivery

2.1.1 P10:At TBA residence , dai

R: Why?

2.2.2 P10: In hospital they charge a lot of money and we cannot afford ,

R: What if there is a problem

2.2.2 P10: laughs out loud that when we very seriously get ill then our beds or (charpais) are carried to hospitals , laughs ha ha ha LOL) all laugh , its all about money

R: What if there is a complication,

P10 :"It never happens as it is the (barkat) or blessings of the (kalaam) of holy book and recitation that we are saved" . Laughs and Laughs.

R: Transport: What is the transport arrangement?

1.4.1 P10: What is the transport arrangement ?.....

P10: I went on foot , TBA residence is close by , walked (laughs)

R:What if there is an emergency what will you do? for example there is bleeding , headache , …… fits how will you reach the hospital?

1.4.1 P10: Laughs and says my husband will take me , there are rickshaws all night it is not a problem

R: Did the CHW tell you

1.4.1 No

R: What about dietry advice

1.5.1 P10: No she doesn't tell any thing about diet

P10: We just have tea and roti , vegetables and sometimes meat what ever is made
1.5.1 in the afternoon we have that.
P10:The CHW did not tell
P10 : Any change in ghee or spices
P10: Nothing I was not told about any thing
1.5.1 P10 : We were told about iodine salt

Did you take multivitamins
1.2.3 P10:Yes fefol vit
Do you have monthly visits ?
1.1.1 Yes monthly , R: is it government or CHW from SRI
P10: Run by Bibi,
What is the benefit of government CHW
1.1.1 P10 :No she does not come and does not tell any thing

P10: What feeding advice did she give you
3.1.1 No she did not tell me about any thing
Cord care , no she did not
R: Vaccinaton:
3.3.1 P10 :Yes gave injections all vaccines and
Never said or told any thing about any thing else.
P10: She does
3.1.1 Weight check , gives tablets and does vaccination
Prviously there were no injections

3.4.1 What did you do for family planning
P10:I took injections but had to leave as my body weight increased, now we plan to
3.4.1 use condoms
Who told you about these
3.4.2 P10:There is a bakht bilan babu clinic who told us about this
No one ever came
P10:I had two children after this programme and one before it

P10: The programme should continue , it is always a problem for us for me , so programme or no programme or doctor or no doctor we have to bear it our selves
But yes im happy with this programme
Maternal mortality
4.1.1 P10: Na na no one died , not that I know but I don't go any where