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# Effect of Females in Leadership Roles on Menstrual Sanitation in Rural Jamkhed, India

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EFFECT OF FEMALES IN LEADERSHIP ROLES ON MENSTRUAL SANITATION IN  
RURAL JAMKHEDE, INDIA

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India: Public Health, Policy Advocacy, and Community

Spring 2015

## Table of Contents

<b>Abstract</b> .....	4
<b>Acknowledgements</b> .....	5
<b>Glossary</b> .....	6
<b>Introduction</b> .....	7
<b>Background</b> .....	7
<b>Menstruation</b> .....	7
<i>Puberty and Menarche</i> .....	7
<i>Puberty: Physical Changes</i> .....	7
<i>Puberty: Psychosocial Changes</i> .....	8
<i>Menarche</i> .....	9
<i>Menstruation in a Cultural Context</i> .....	9
<b>Menstruation In India</b> .....	9
<i>Information, Knowledge and Beliefs Surrounding Menstruation.</i> .....	9
<i>Cultural Practices During Menstruation.</i> .....	11
<b>Gynecological Education</b> .....	13
<i>Menstrual Sanitation and Women’s Health</i> .....	13
<i>Comprehensive Rural Health Project Model</i> .....	14
<i>Government Model</i> .....	15
<b>Women’s Empowerment</b> .....	18
<b>Summary</b> .....	18
<b>Purpose</b> .....	19
<b>Study Setting</b> .....	20
<b>Methods</b> .....	20
<i>Determining A Site Location</i> .....	20
<i>Secondary Data: Research and Organizational Documents</i> .....	21
<i>Benefits and Drawback of Using Documented Information</i> .....	21
<i>Planning and Organization of Research</i> .....	21
<i>Benefits and Drawbacks of Involving CRHP’s staff in the planning process</i> .....	22
<i>Data Collection: In- Depth Interviews</i> .....	22

*Benefits and Drawbacks of Interviews* .....24

**Results** .....24

**First Education about Menstruation**.....24

**Confidant at time of Menarche** .....27

**Additional Sources of Information**.....28

**Superstitious Behaviors** .....29

**Health Educators** .....31

**Pathways** .....33

**Discussion**.....34

**Recommendations for Further Study** .....37

**References** .....38

**Bibliography** .....39

**Appendices**.....41

**1. Guideline of Interview Questions**.....41

**2. Tables** .....43

## Abstract

**Introduction:** Menstruation is integral to puberty and maturation of adolescent girls. Education about menstruation and menstrual hygiene affects a woman's physical and psychosocial health through the majority of her life.

**Purpose:** This study seeks to answer the following questions: Who is providing information to girls before or after their first menstruation? Is this information timely, appropriate and accurate? Is the information effective enough to see changes in menstrual practices through a family and community? In answering these questions, the study attempts to determine the pathways of communications regarding menstruation and menstrual health in the Jamkhed area of the Ahmednagar district in Maharashtra, India.

**Methodology:** Semi-constructed interviews were conducted with 3 Village Health Workers from Comprehensive Rural Health Project, 1 Village Health Worker trainer, 2 government-employed nurses, 3 ASHA, and 11 rural village women. A pre-designed guideline of questions was used, but interview continued in a conversational manner.

### Results:

**Conclusions:** In project villages, young women were more aware of and more informed about menstruation as compared to women in non-project villages. Village health workers had more success in educating all ages of women while ASHA and government-employed nurses struggled to educate older generations. There was a varying degree of superstitions surrounding menstruation in non-project villages.

### **Acknowledgements**

Throughout the process of learning about India, healthcare, rights to health and menstruation, I have come into contact with an enumerable amount of role models and teachers, all of whom I could not begin to name nor express adequate praise or appreciation for.

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## Glossary

<b>Abbreviations</b>	
Accredited Social Health Activist	ASHA
Comprehensive Rural Health Project	CRHP
<i>Mahila Vikas Mandali</i> (Women's Group)	MVM
National Health Mission	NHM
National Urban Health Mission	NUHM
Non-Project Village	NPV
Project Village	PV
Village Health Worker	VHW

## **Introduction**

### **Background**

#### **Menstruation**

Menstruation is a natural, biological process which is common to all physiologically normally functioning women. Menstruation begins after a girl experiences many internal and external bodily changes during the time of her life termed puberty. Though most women experience menstruation, it is not a simple and equal event for all. There are distinct differences in menstruation between women, and a woman may experience dissimilarities between one of her own menstrual cycles and the next (Jones, 1982). Additionally, some women may have differing levels of symptoms and may or may not experience pain (Omidvar & Begum, 2010). There is a wide range of ages (8-16 y) during which a girl may begin her menstruation. For some duration of time after menarche, menstruation may not be regular due to fluctuating hormone levels (as cited in Tyler and Woodall, 1982).

#### *Puberty and Menarche*

Apart from the first 2 y of life, there is no time when the body and mind develop as much as in early adolescence (as cited in Rembeck, Moller & Gunnarsson, 2006). The female body endures the changes of puberty, which alter both her physical and psychological states. Eventually, an adolescent girl will experience menarche and her reproductive years, including monthly menstruation, will begin immediately or after a short duration.

#### *Puberty: Physical Changes*

During puberty, there is a clearly noticeable change in adolescent girls' appearance. Almost all parts of the body are included in this growth; internal and external. Primary changes that occur

during puberty for females are as listed: growth spurt which includes growth of skeletal dimensions and internal organs, development of gonads, development of secondary reproductive organs and secondary sex characteristics, and changes in body composition related to distributions of fat (as cited in Tyler and Woodall, 1982, pg 116). Many of these changes are outwardly evident, to both a girl and her family and friends. Therefore, puberty and sexual maturity is the burden of the girl yet is public knowledge of her community.

*Puberty: Psychosocial Changes*

During this time of bodily changes, there are also changes in personal and societal perceptions of the girl. A girl begins to evaluate herself as a female in her society; she must form an adult identity. An adolescent girl will use many facets of society to determine the value of her gender and become acquainted with her expected role in society.

Tyler and Woodall (1982) describe how a girl develops her self-esteem in adolescence: “She will take into consideration the values she sees her mother and other close adult women hold about themselves. She will learn the value and worth that society hold for her sex. By sifting through this information, she will form or herself a concept of her own worth as a woman. This, in turn, will serve as a basis for her overall regard for herself as a human being (page 121).”

The beliefs and understandings of menstruation within each culture strongly shape the way an adolescent female experiences puberty and how she continues to understand and internalize her own reproductive years from menarche through menopause. Specifically, a girl will note how the adult females in her community regard their own sexuality and thence construct an image of herself also as an adult female (Tyler and Woodall, 1982). The way that a girl interacts with her

environment during puberty and menses impacts her mental health throughout each menstrual period and for the duration of her reproductive years.

### *Menarche*

The first menstruation, menarche, is exceptionally important to an adolescent girl's life as it marks the physiological point of her reproductive maturity (Fakhri, Hamzehgardeshi, Golchin & Komili, 2012). In some cultures, menarche is celebrated and worshipped while in others it goes without much notice. It may mark a time at which a girl is fit to marry or may simply be a part of the 'growing up' process. The effect of the community is heavily ingrained during this transitional time.

### *Menstruation in a Cultural Context*

Although there is a definite clinical definition of menstruation and menarche, each culture may understand these events in any number of ways. Often, the way a culture views menstruation is at least partially indicative and/or causative of the status of women in that culture. It is also probable that practices surrounding menstruation can affect the lifestyle, health and education of women.

### **Menstruation in India**

In India, perceptions of menstruation and menstrual practices vary widely between regions. However, overall perceptions of menstruation and menstrual practices can be tied to gender inequities and the socio-economic status of women in India. "The female child having survived the hazards of childhood and infancy as an unwanted or neglected child; is now exposed to aftereffects of poor nutrition in addition to insanitary facilities and unhygienic practices."

(Kendre & Ghattegi, 2013).

*Information, Knowledge and Beliefs Surrounding Menstruation.*

When examining the actions of an individual or of a culture, it is important to first consider the source and validity of information, knowledge and awareness available to them. Indicative of the general trend of inadequate information about menstruation are statistics regarding girls' knowledge of menarche. In many cases, adolescent girls are not aware of menstruation before their own menarche. In Anand district, Gujrat a survey of 900 school girls aged 11-17 y, showed that 37.2 percent had not been informed about menarche before its onset. This explains the fact that 16.9 percent of the girls initially thought menstruation was a life threatening disease or symptom of illness. Additionally, 48.2 percent of these girls answered "no" to a questions asking if they felt mentally prepared for their first menstruation (Tiwari and Oza, 2006). In Singur, West Bengal a survey of 160 adolescent secondary school girls showed 32.5 percent of the girls had not been informed about menstruation prior to menarche and further, 97.5 percent did not know the source of menstrual bleeding (Dasgupta and Sarkar, 2008). This indicates that there is little to no open discussion about menstruation in these girls' families or external sources, and that information which is provided is incorrect, inadequate and/or inaccurate.

Adolescent girls may have no formal source of education about their menstruation, leaving them completely reliant on local information and cultural beliefs. For the girls in the previously noted studies who had received information about menstruation, the main sources of information were mothers, elder sisters and friends (Tiwari & Oza 2006 , Dasgupta & Sarkar, 2008). If the primary source(s) of information for young girls have incorrect or negative perceptions of menstruation and engage in harmful and unsanitary practices due to misconceptions, they will naturally and inevitably pass these practices to younger generations. If there are no other sources

of information available, it is not likely that an adolescent girl will come to change her perception of menstruation over time, perpetuating incorrect ideas and unsafe practices.

In addition to the lack of information surrounding this topic, is the burden of incorrect information which was briefly introduced already. Misconceptions about menstruation have been readily accepted and shared throughout India, particularly in rural areas. In her book, *Voices of South Asian Woman*, Arole shares the coming of age story of a Meena who found her menarche to be a difficult time as there were suddenly many rules regarding where she could or could not go inside her own house, that she must not touch communal food or vegetables and that she was not allowed to sit near her family, in addition to exclusion from religious events. In some areas of India, the concept of a 'polluting touch' exists (Mahon & Fernandes, 2010). In Kumaoni, Uttarakhand, India, the majority of women who stayed in isolation during their menstruation said it was because they felt they were unclean at the time (Capila, 2004).

Misinformation and taboos surrounding menstruation lead to harmful and unsanitary practices. Some girls may be missing some of the most rudimentary information about menstruation and hold very incorrect and harmful information in its place. Shanbag *et. al.* (2012) report that some girls consider menstruation may be the curse of a god. Believing that menstruation is a curse forces a natural phenomenon into an extremely negative light. In addition to degrading a natural process, it logically follows that a woman must be, during these times, shameful and unworthy. During adolescence and puberty, a time when a girl is developing her individual identity and beginning to fit into the society mold for her gender, she is being presented with negative views of women and of menstruation.

### *Cultural Practices During Menstruation.*

In households where menstruation is considered dirty or impure, women may suffer physical and mental stressors and abuses. During menstruation women may be expected to remain segregated from other members of the family, either partially or entirely. A woman will have up to a week of little to no contact with family and friends. These changes are often enforced by the mother of the household (Mahon and Fernandes 2010). Capila (2004) reports that in her study, 100 percent of women from villages without health interventions were isolated to a cattle-shed during menstruation. These ideas are strongly entrenched in the culture of the region, shown by the fact that 100 percent of women from villages with health intervention were also segregated; 50 percent to a cattle-shed and 50 percent in some other form. Actions which degrade a woman during her menstrual period teach that a woman's natural state is impure and that menstruation itself is the cause of this impurity.

Further, a woman may be given a different, less adequate diet during her menstruation. In Capila's study (2004) out of 60 women from six villages in Kumaon, 35 percent stated that they ate less than normal during their menstrual period. Women also tended to eat food made by other women as they were not allowed in the kitchen. The women who consumed normal amounts of food were more likely to be from a village where there were previous health intervention programs (Capila, 2004). In other locations, 58.1 percent of women reported that they consumed less food during menstruation and most women (79.9 percent) said that nutritional advice had been given by their mother (Shanbhag *et.al*, 2012).

A woman herself may engage in actions which are harmful and unhealthy during her period. A woman may go without bathing during this period. In Gujjar communities, 98 percent of girls believed that no regular bath should be taken during menstruation (Mahon & Fernandes, 2010).

Though other studies show that girls take varying numbers of baths during their menstrual period, it is important to note the diversity of cultural beliefs and misconceptions which plague women.

A woman may also store her pads or clothes in a place out of view of the family; this location may be dirty or damp and liable to cause bacterial growths (Mahon and Fernandes, 2010). The impact of bacterial growth on sanitary pads is discussed in the next section.

Despite the range of attitudes and behaviors surrounding menstruation in the home, there remains a constant restriction for menstruating women in the religious context. All of India's religions (excluding Sikhism) consider women 'ritually unclean' during their menstrual period (Bhartiya, 2013).

### **Gynecological Education**

*Menstrual Sanitation and Women's Health.* To ensure a healthy and dignified menstrual cycle, a woman needs access to clean facilities and effective and safe sanitary products. Millions of women in India suffer from reproductive tract infections (RTIs) and complication, and such infection can be passed on from mother to child (Dasgupta & Sarkar, 2008). Poor menstrual health is related to the onset of RTIs thus in order to ensure the physical health of women, they must maintain sanitary procedures (Dasgupta & Sarkar, 2008). In a study covering 1033 menstruating women in India, only 12 percent used sanitary napkins (Nielsen, 2011). In some areas, commercial sanitary products are not available or affordable, and so homemade versions may be improvised (Capila, 2004). A woman may use reusable rough cotton cloth, ash or husks and/or a combination of these as an alternative absorption material (Capila, 2004, Nielsen, 2011). If these clothes are not washed thoroughly and dried completely in the sunlight and stored in dry location, they encourage the growth of bacteria (Mahon & Fernandes, 2010). There are high rates

of RTIs in India which can be related to women using improper and unclean absorption materials during their menstrual period. RTIs in women using alternatives to commercial sanitary napkins are 70 percent more common (Nielsen, 2011). Further, 70 percent of women will experience some kind of RTI during their lifetime (Nielsen, 2011).

Currently, the Indian government has a scheme which offers sanitary pads at a subsidized rate for girls who are Below Poverty Level (BPL). However, women who are using sanitary pads have a different but important set of problems to deal with. Women need a private place to dispose of and change their sanitary pads. According to the Indian Census (2011), more than half (53.1 percent) of India's household do not have a toilet and 49.8 percent of Indians defecate in the open. Thus, a woman may need to wait until she has the privacy to dig a hole or until she has access to a toilet to change her sanitary pad or absorption material. She is not free from stigma or anxiety surrounding her menstruation during the entirety of the process.

Bhatt and Bhatt (2005) state that "Menstruation is responsible for menorrhagia, dysmenorrhea, pelvic inflammatory disease, premenstrual syndrome, and endometriosis. Medical conditions, such as epilepsy, migraine, depression, porphyria, arthritis, and more, are known to be aggravated during menstruation." In a situation where discussing menstruation is not considered culturally appropriate, a woman may needlessly suffer from related ailments.

Mental health of women during their menstrual period and through the reproductive ages is also of primary concern. Many adolescent girls feel conflicting emotions surrounding menstruation such as "excited but scared" or "happy and embarrassed" (Oza & Tiwari, 2006). Additionally, girls may feel negative emotions such as anxiety or low self-esteem during the changes of adolescence which are connected to menstruation (Sinhaand & Modi, 2014). In Bangalore City,

44.1 percent of girls reported that they experienced fear during their menarche and only 14.07 percent showed a 'positive attitude' towards menstruation based on the study's scale (Shanbhag *et. Al*, 2012). Counseling and support are not options for girls struggling with the bodily and psychological changes of adolescence as the resources are not available (Sinha & Modi, 2014) .

#### *Comprehensive Rural Health Project Model*

Comprehensive Rural Health Project (CRHP) was created by Drs. Rajanikant and Mabelle Arole in 1970 to introduce a new model of community development. The Aroles attended medical school in India and completed their medical and surgical residencies in the United States, going on to obtain their Masters in Public Health at Johns Hopkins University. Unhappy with their experiences in medicine and health care, they were determined to find a holistic and sustainable means of empowering underprivileged communities (Annual Report, 2012-2013).

The CRHP mission states "By mobilizing and building the capacity of communities, all can achieve access to healthcare and freedom from poverty, hunger, and violence" (Annual Report 2012-2013). CRHP's approach is sometimes called the "Jamkhed Model". It involves three components: community participation, a mobile health clinic and team, and a private hospital. At each stage, among many other topics, menstrual health and education is available; the main educators are the Village Health Workers (VHWs). In 45 villages in the Jamkhed area there are a total of 55 VHWs. These women are volunteers selected by their communities who receive on-going, weekly training from CRHP. They are the women that connect their communities to the project staff on the CRHP campus (Chitnis, 2005). "VHWs not only act as health workers and midwives, but they also mobilize their communities to achieve better sanitation, hygiene, and family planning" (Annual Report 2012-2013).

In many communities where CRHP's VHWs were present, they yearned for more support from the women in their communities. VHW arranged weekly gathering of any women interested (from any caste) to convene and review the health and development problems in their village in addition to financial struggles of married women. The product of these initial meetings is *mahila vikas mandal* (MVM) (women's group) which continue weekly in PVs (Arole & Arole, 1994).

VHWs are provided with multiple training tools such as rubber models and painted aprons which show the female anatomy, posters, flip-books and flash cards describing anatomy and menstruation. (Annual Report, 2012-2013). The VHW training manual includes information on anemia related to excessive bleeding and poor nutrient intake (Chaitanyaa, n.d.).

CRHP also holds an Adolescent Girls' Program (AGP) which is a two-tiered approach to tackling many issues faced by adolescent girls. At the village level, groups of adolescent girls meet with VHW and members of MVM to learn and play. On CRHP's campus, groups from several villages meet for an overnight stay where there are informal learning sessions and free time for playing, dancing and other recreational games. Menstruation and gynecological hygiene are both covered during these sessions, as well as confidence building and empowerment activities (Yan, 2005).

#### *Government Model: National Health Mission*

The central government of India, under the Ministry of Health & Family Welfare, provides health care and health education under their National Health Mission (NHM). This can be broken down into two sub-missions: National Urban Health Mission (NUHM) and the National Rural Health Mission. "The NHM envisages achievement of universal access to equitable, affordable

& quality health care services that are accountable and responsive to people's needs" ("National Health Mission", 2013).

Under the health mission, the central government provides financial assistance to states in order for them to create or strengthen health infrastructure for the public, including staffing. There are three levels of facilities: Sub Centre (1 per 5,000 population in general areas (GA) and 1 per 3,000 population in difficult terrain/ tribal areas (DTTA)), Primary health Centre (1 per 30,000 population in GA and 1 per 20,000 population in DTTA), Community Health Centre (1 per 120,000 population in GA and 1 per 80,000 population in DTTA) ("National Health Mission", 2013). According to the Rural Health Statistics (2014), these standards have not been fully met for any of the three facilities.

In addition to infrastructure, the NHM attempts to provide every village with an Accredited Social Health Activist (ASHA) who will be a female trained in and an advocate for community health. She will be chosen by a selection process which involves community members, political officers and her village Health Committee. After selection, she will receive a series of trainings which will prepare her both academically and emotionally for her work; this includes education in menstrual health and hygiene. She receives performance-based incentives for certain tasks such as "promoting universal immunization, referral and escort services for Reproductive & Child Health (RCH) and other healthcare programmes, and construction of household toilets" ("National Health Mission", 2013).

NHM has introduced a Menstrual Hygiene Scheme. This scheme is meant to promote menstrual knowledge and hygiene for adolescent girls ages 10-19 y in rural areas. In pilot areas, it provides high quality, safe sanitary pads at a fixed rate of Rs. 6 per pack of 6 pads. The ASHA of the

community will sell them, earning a profit of Re. 1 per pack and will also be provided with a free pack of sanitary napkins per month (“National Health Mission”, 2013).

### **Women’s Empowerment.**

The overarching negative perceptions of menstruation leading to negative emotions during menstruation have far-reaching implications for girls’ empowerment and gender inequities in the Indian context. There are high dropout rates for females in after menstruation begins (Mahon & Fernandes, 2010). Many girls do not attend school while they are menstruating due to lack of privacy and the struggle of changing their absorption material in a location with poor or no toilets (Mahon & Fernandes, 2010). On average, girls miss 5 days of school a month (50 days annually) (Nielsen, 2011). Missing school each month makes it hard, if not impossible, to keep up with school work. As a result, 23 percent of girls drop out of school after they begin menstruation (Nielsen, 2011). Additionally, many girls are withdrawn by their parents after menstruation for the purpose of marriage (Mahon & Fernandes, 2010). Thus, menstruation is preventing girls from getting an education, one of the pillars of women’s empowerment.

When women are shunned for a normal bodily process, their natural state is being degraded. They are shown and told that their own body and its functions are not acceptable in society and certainly are not acceptable to god(s). Menstruation is unique to females, so men have no time in which they are considered impure; impurity due to biological processes is only the unique plight of women in India.

### **Summary**

Perceptions of menstruation in India cannot be neatly summed up into a few categories – there is a wide spectrum of beliefs and practices that surround menstruation over the subcontinent and

attitudes can vary even between family members of the same household. However, it can be said with certainty that there are girls and women in this country who know little to nothing about menstruation, and that negative perceptions held by their own and many other communities will hinder women in India from an education and from fair and equal treatment in all sectors of their society.

### **Purpose**

The objective of this study is to determine the role of females in leadership positions, either in the family or the larger community structure, in menstrual health and hygiene education. The importance of menstrual health both physically and psychologically has been explored in-depth, but a point of intervention remains somewhat unclear. In order to best promote menstrual health and hygiene, there must be a proper channel of communication and the education provided must be factual, clear and most importantly, must be accepted by those being educated. Of course, there are many resources for information but this study seeks to answer specific questions which will reveal the most common pathway for menstrual beliefs, be them factual or not, to be passed through a community. Questions this study seeks to answer are:

- Who is providing information to girls before or after their first menstruation?
- Is this information timely, appropriate and accurate?
- Is the information effective enough to see changes in menstrual practices through a family and community?

Further, this study specifies females as they alone experience menstruation and thus can provide more accurate and firsthand accounts of their own experiences, and are in a more informed

position to educate adolescent girls. Additionally, it has been well documented in many cultures that girls are most likely to approach either a mother or close female relative when they experience their first period, although they may or may not be the initial source of information.

Perhaps in deciphering the progression of information, it will be clearer where interventions ought to be made to best improve the quality of menstrual health in India and other regions of the world struggling with similar issues.

### **Study Setting**

The study was conducted in rural villages in the Jamkhed area of the Ahmednagar district in Maharashtra, India.

This area was purposely selected as there is a long standing health intervention program through CRHP. It was important to have a site that could access villages which had varying degrees of health interventions in order to compare the ways pathways of communication change with certain health interventions. CRHP provided transportation to both their Project Villages (PVs) which have either only CRHP or both CRHP and governmental interventions, and to Non-Project Villages (NPVs) which had only regular government health and education interventions.

### **Methods**

#### *Determining a Site Location*

Prior to beginning research in the Jamkhed area, the researcher spent 1 week on CRHP's campus learning their model, visiting their project villages and other program sites, and attending one VHW training session. It was clear that CRHP had a long standing, working model which was well accepted by the communities it was involved with as well as by many reputable outside

sources. It is due to these experiences that the researcher decided to return to Jamkhed to use as the site of research.

### *Secondary Data: Research and Organizational Documents*

Also before beginning field work, the researcher conducted detailed secondary data and literature reviews. Journals and published papers were accessed via Tulane University's online library database. The purpose of this analysis was to explore the current knowledge of menstruation practices and understand fully the importance of menstrual practices on the mental and physical wellbeing of adolescent girls and women. At CRHP, documents pertaining to the organization were available and provided qualitative and quantitative data on the CRHP's programs, PVs, VHWs, menstrual education tools and health outcomes of their work.

### *Benefits and Drawback of Using Documented Information*

It was important for the researcher to have a complete view of the importance of menstrual practices on the health of an individual. Also, India has a diverse set of religious beliefs which have a profound effect on the actions of an individual and a community – the impact of which could not be understood without research. Further, to clearly understand the programs in place at CRHP the researcher needed to look specifically at the reports and training manuals produced by CRHP. However, the information could not be considered completely accurate as often times the expectations of a program on paper are not equal to the results in the field. Additionally, this information could not provide a current picture of the actual methods and pathways of communications women were using to gain information on their menstrual period and as such, in-depth interviews are used as primary sources of data.

### *Planning and Organization of Research*

After returning to Jamkhed with the intention of beginning field work in April 2015, the researcher met with the director of CRHP and a social worker at CRHP, Ravi Arole and Jayesh Kamble respectively, to share the intentions of the study and to review the questions expected to be used during the interviews. It was important that the staff of CRHP reviewed the questions to avoid tense or awkward interview situations wherein the researcher, translator or subject may feel uncomfortable leading to poor research results. A tentative interview and travel schedule was also determined. The questions were translated from English to the local language, Mahrati, by a member of CRHP's staff and reviewed again by Kamble.

### *Benefits and Drawbacks of Involving CRHP's staff in the planning process*

Without the help of CRHP, the researcher would not have had access to the villages in this community and would have found it hard if not impossible to communicate on the topic of menstruation in NPVs. CRHP is well versed in the structure and communities in PVs and NPVs, as well as the customs and norms of this area. It was crucial that the researcher have a credible translator and team to assist in gaining trust with the subjects as there was minimal interaction with these communities prior to beginning research.

### *Data Collection: In- Depth Interviews*

The study was designed to gather qualitative data regarding women's experiences with menstruation, changes in family and community beliefs surrounding menstruation and the pathways through which information surrounding menstruation was and is disseminated. Interviews were conducted with a variety of women throughout the Jamkhed area of the Ahmednagar district in Maharashtra, India. Categories of women interviews are as follows:

VHW (3 interviews), VHW trainer (1), government nurse (2 interviews, 1 PV and 1 NPV), AHSA (3 interviews, 2 NPV and 1 PV), village woman 18 – 30 y (5 interviews, 3 PV and 2 NPV), village woman 31 + y (6 interviews, 3 PV and 3 NPV)<sup>1</sup>. Village women are separated into the two age categories because most women in PVs above the age of 30 have some experience with menstruation before or in the early stages of CRHP interventions. Villages in Jamkhed can be categorized into project villages and non-project villages<sup>2</sup> in regards to the involvement of CRHP within them. Interviews were conducted in 2 NPVs, 4 PVs and on CRHP's campus. Women were interviewed in both categories of villages in order to compare the effect of CRHP's model of health education to the effect of having only government workers<sup>2</sup> in the community. There were no cases in which a village lacked intervention from both types of community health workers.

The study consists of 21 interviews conducted over a two week span. All interviews were semi-constructed; a general guideline of questions was followed<sup>3</sup> but the interviews progressed in a conversational manner. The majority of interviews required a translator<sup>4</sup> who spoke both English and Mahrati as the researcher speaks only English but most subjects spoke primarily Mahrati. Due to the topic of this research, the translator was female in most cases, in order to provide a level of comfort to the subjects who were unused to openly discussing menstruation in front of males.

On CRHP's campus, VHWs and the VHW trainer were interviewed. Village women were interviewed in their homes or just outside of them. These interviews were not always exclusively

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<sup>1</sup> See Table 1 in Appendix 2

<sup>2</sup> Government Workers include ASHA and nurses employed at government healthcare facilities

<sup>3</sup> Questions are available in Appendix 1

<sup>4</sup> All translations of VHWs were done by Surekha Sonawane. All other translation were done by Ratna Kamble unless otherwise stated.

private; it was common for friends, mothers-in-law and small children to sit near the interview, however they did not engage in the interview and their presence can be considered to have little to no effect on the answers given. Typically, age groups were separated i.e. when an elder woman was being interviewed younger family members or friends who might be interviewed later were asked to give privacy so that answers would remain individualized.

### *Benefits and Drawbacks of Interviews*

Interviews allowed the researcher and subject to communicate in a conversational style. Because menstruation can be an uneasy or uncommon topic for some women to discuss, the interview process allowed the researcher and translator to share openly their experiences with menstruation, setting subjects more at ease. Though there were some objectives in the interview, this style of data collection allows unknown or unexpected points and trends to emerge which may have been missed in a more formal data collection method.

It must be made clear that as PVs have had extensive health care, health education and other interventions and as such, the women might be more frank in speaking and more comfortable with the topic of menstruation. In NPVs it was slightly more difficult to find women willing to speak frankly or openly at length about their experiences with menstruation.

## **Results**

### **First Education about Menstruation**

Distinct differences between age groups in PVs regarding when women were first told about menstruation exist (See Table 2, Appendix 2). Women in the younger age group from PVs all had experience learning about their period before it occurred. This information came entirely

from the Adolescent Girls' Program in the village and on CRHP's campus which was led by their VHWs or other CRHP staff. They had been taught about personal hygiene, proper use and storage of pads and the biologic background of menstruation all via rubber models, painted aprons, flashcards, pictures and other interactive teaching tools such as songs and dramas. A 19 y PV woman describes her menstruation hygiene knowledge, "I also attended once in CRHP. There they teach all things and because of that I have sufficient knowledge of all the things... Wash the pad with the soap and water, keep it in a neat carry bag. Plenty of water, bathing, every day (Interview)." CRHP also provides girls with books to read about menstruation (Interview).

It is important to note that elder woman from the PVs all experienced their first menstruation before CRHP was present in their village. All women aged 31+ y had not known any information about their period before it occurred (Interviews).

In NPVs neither of the women interviewed in the younger age category had any information about their menstruation before menarche; they were not aware of its existence.

In the older age category, one NPV woman had no knowledge of menstruation and one had known about it beforehand. The older woman who was aware of her menstruation before it occurred described her experience. "I learned from my friends before my period because in the school the girls would say "Oh, don't touch her," ...so then I understood (Interview)." She learned of superstitious beliefs surrounding menstruation from her friends but had not received any formal education on menstruation or menstrual hygiene before her menarche.

Both of the older women interviewed in NPVs believed that their grandchildren and the younger generations in the village may have received education about menstruation from a nurse, ASHA or other community health worker in their village, but all noted that this information had not

been shared in front of themselves (Interview). It was not made clear what type of education this might have been.

All 3 VHWs interviewed found it important to talk to girls about menstruation before it occurred. Additionally, the VHW trainer agreed with their statements. When asked where and when they would educate girls about menstruation, they all replied that they would educate any woman of any age at any time. “Anytime, anywhere. In the bus, in car, when we are carrying a patient here [to Julia Hospital] or bringing relative to the market –so, start the information (VHW Trainer, Interview).”

Nurses and ASHAs from NPV also educated young girls before their menstruation and during their earlier years of menstruation. They taught specifically about nutrition and cleanliness during the menstrual period. One AHSA working in a PV had not yet received training but when interviewed believed it was important to educate women and adolescent girls on menstrual health, and also believed she would educate the women and girls in her village. 2 other ASHAs, both working in NPVs, stated that they educated girls and mothers about these topics during home visits. A government nurse working in a NPV noted that she shared information with the women of the families who came to her immunization camps. The day of the interview was an immunization camp but no families were present. A government nurse working in a PV taught about menstrual education in the government school located in her village. She also taught the same information in a group setting to girls who did not attend that school.

All of the women in the younger age group interviewed said they had told their younger sisters about menstruation before it occurred for them. Women in the younger age category who were

already mothers from NPV had or would educate their daughters about menstruation before it occurred for them.

### **Confidant at time of Menarche**

All women in all age groups interviewed choose to confide in a female relative during at the time of menarche. For most (6) women, this was their mother (See Table 3, Appendix 2). This is consistent with studies across India and internationally. For one elder woman from a now-PV this was not possible as she was already married and living with their mother in law. One PV woman in the younger age category confided in her sister first, as they were together at school at the time. They returned home and informed their grandma because their mother had migrated for work. One NPV woman in the younger age category confided in her sister only as she felt too shy to share this information with her mother. 2 women from PV (which were not PV at the time of their menarche) had to confide in an aunt and a sister-in-law respectively. In one case, the woman was living with her aunt and in the other her mother was in the hospital.

In each case, it was the confidant that gave additional information and pads, cloth or other absorbent material that was available such as a ripped sari when they were in a field working.

It was the confidant who taught all women what, if any, new rules existed during menstruation. Examples of new rules or behavior changes include not going to the temple or not touching food that other will eat. These expectations varied widely between families and in some cases changed after marriage, after the intervention of CRHP or naturally overtime. These are covered in more detail in the ‘Superstitious Behaviors’ section below.

None of the girls suggested that they had shared the information with any males in the family. However, one woman in the older age category mother had held a household ceremony wherein

the family worshipped her after her first menstruation which inevitably made it obvious to the males in the family that she had reached 'womanhood'.

### **Additional Sources of Information**

There were multiple additional sources of information about menstruation found in each village and sources were diverse between families. In PVs, women from the younger age group all talked with their friends about their menstruation period. Elder girls and sisters acted as important informants. In PV villages, girls who had attended AGPs together discussed what their periods were and how to take care of themselves during their menstruation, as well as misunderstanding in their villages surrounding menstruation including religious restrictions. Additionally, girls who went to the AGP also read books about their menstruation. VHW were another source of information for girls in the younger age category in PVs. VHWs taught the same information given at the AGPs including biology of the period, cleanliness of the body and sanitary use and disposal of pads or other material and also declined the importance of superstitious behaviors and other harmful cultural beliefs (Interviews). A woman in the elder age category explained how menstrual education was given to young girls in her village, "Our VHW only teaches in this village. Government nurse never told anything about this. Every now and then Akila [VHW] comes and she collects the adolescent girls and she talks about it. Only the VHWs tells them. ASHA never talks, and nurse never talks (Interview)." Although some PVs have both VHWs and government workers such as nurses and ASHAs, the VHW are doing the bulk of the work in this category.

In PVs, VHWs were also sources of information for older women who had no access to a community health worker during their younger years. PV women in the older age category noted that they had learned about personal hygiene (specifically, bathing each day with soap during the

menstrual period was a common topic) and about proper use and storage of sanitary pads after VHWs started work in their village. “Akila [VHW] was not there, but there was one government nurse... once she visited during the pregnancy and gave iron tablets to me. That’s all. She didn’t say anything about the period. Then Akila started coming she told us about the cleanliness (Interview).” One woman specifically knew that her VHW had only taught her about cleanliness during menstruation, but over the years began to counsel younger girls on superstitions in their village (Interviews).

In NPVs, no girls in the younger age category had talked to anyone aside from their confidant at the time of menarche. Though their villages had community health workers such as nurses and ASHAs, no women interviewed had received additional information from them (Interviews).

In NPVs, woman in the older age category had not had any additional training about menstruation. All mentioned that they believed a nurse or ASHA may have given information to their daughters or granddaughters, but they did not know what type of education it was. One woman said that she had begun to bathe every day, including during her period, after some time with her in-laws. She explained it as a religious belief and did not state this behavior change had been due to menstrual education.

### **Superstitious Behaviors**

Superstitious behaviors still exist on a gradient in all villages, despite the distinct, differing levels of education. In NPVs all women but one “changed their daily routine” during their menstrual period. The one village woman who did not was a self-described well-educated teacher who had not learned any such behaviors from her mother and who lived with her educated husband who worked as a teacher and did not have any objections to any of her actions during her period.

However, other women in NPVs, including all ASHAs the government nurse interviewed did not

eat with their families during menstruation and did not cook, gather water or pray during their menstrual period. Women from the younger age category and community health workers all specified that they did not agree with this behavior and had decided they would not teach their own daughters or daughters in law to observe these customs (Interviews).

Conversely, many VHWs shared stories of success in educating elder women and seeing a change in exclusionary practices. One VHW recalled visiting a family where a young mother was not cooking for her children during her menstruation at the order of her mother in law. After a year of multiple counseling talks with the mother-in-law, she resigned her beliefs and allowed her daughter-in-law to go about her regular day during her menstrual period. A PV woman in the older age category explained her situation as a young girl: she was married very young and her first period did not occur until she was at her in-laws' house. She told her mother-in-law immediately after her menstrual bleeding began. She was made to sit apart from her new family every menstrual period, not allowed touch food or water vessels and not allowed to engage in religious activities. Additionally, she had 4 children. During her menstrual period, her own children were not allowed to come near her. However, after her fourth child, CRHP interventions began in her village. Her own mother-in law attended women's groups and eventually became a VHW. In her home after her mother-in-law began working with CRHP, all of the superstitions were eradicated and during her menstrual period she did not change her daily routine at all. Then, she became pregnant with her fifth child. When that child was born, it was always allowed near her and her menstrual period was of no offense to anyone in the household thus her daily routine stayed the same. She went on to teach her own daughters that their periods were natural and she shared no superstitions with them (Interview).

A woman from the younger age group in a PV recalled that her menarche occurred she was in 9<sup>th</sup> standard, and it was final exam day. Her grandmother gave her a pad and she went to school to take her exam normally. She also noted that she sat aside during the day in her home because she was in pain or feeling lazy.

### **Health Educators**

VHWs give health education to girls and women of any age. They educate about puberty, menstruation, reproduction and menopause. One VHW gave a good overview of the menstrual education she provides. She answers the questions: “What is happening? What is meant by menstruation? What do you have to do in that period? (Interview).”

All 3 VHWs interviewed were trained in the anatomy and physiology of the female reproductive system as well as characteristics of adolescence. They share this information clearly with individual girls and in girls’ groups. Additionally, they provide moral support for adolescent girls going through puberty and their first menstruation. One VHW tells girls bluntly, “If menstruation is there, then don’t get afraid (Interview).” While another VHW expands on that idea, saying “Menstruation is there in each and every village in our community. There is no difference. It is natural (Interview).”

VHWs also willingly educate men. They use science to describe why women experience menstrual pain and provide suggestions to couples about what is healthy behavior during the menstrual period. “We are convincing the husband that during menstruation the fallopian tube, the movement is there. The continuous movement is there and that’s why the pain is there and so take some rest or do work as usual. It is not like a disease, use some exercises and nice nutrition and don’t sleep all the day (Interview).” One VHW tells men “If your mother is not having

menstruation then you would not be here (interview).” Another VHW explained that in the past, males in her village also harbored many superstitions but after health education became prominent, the superstitions were gone and men now discuss the topic among themselves in mens’ groups (Interview).

VHW are aware that new girls marrying into their village, from NPVs, may not have health education. VHWs will specifically visit them and share health education to the couple. New women are well supported and health education is offered to them by VHWs but also by new friends and relatives (Interviews).

One ASHA from a NPV had not received any training yet but said yes when asked if she thought that her village needed more education about menstrual health and also said yes when asked if she thought she would provide them with that education and again said yes, she would talk to men about menstruation. The second ASHA from a NPV did teach about menstruation in her village to adolescent girls and women, including to girls before their first period. However, she said most women in her village still followed superstitions and that she had not had much success in changing their minds, especially older women. Additionally, she said very few women are using washable or reusable sanitary napkins (in preference of disposable pads) but that the women who did use them were not drying them in the sunlight. She did not speak to men about menstruation.

The government nurse working in a PV taught girls about cleanliness and nutrition during their menstruation period. She also had models, pictures and flashcards for explaining the biological bases of menstruation. She teaches girls at the government school in the village and also to groups of girls who do not go to school. She believes “Some teachers are very shy. They will

never talk about [menstruation]. Only nurses and [the VHW in this village] they will talk about it (Interview).” In her village only she and the VHW are providing menstrual education. There is also an ASHA working in this village. The ASHA does not give out menstrual education, but does attend the lectures given by the nurse to the girls of the village.

All village women interviewed were agreed that there should be some additional source of information about menstruation for their daughters. Sources included government ASHA or nurses, school teachers, or in PVs, VHWs.

### **Pathways**

The pathway in PV is thus made clear; before menstruation, a girl learns about menstruation from CRHP’s AGP and her VHW, and in some cases also from her mother and sister. After her first period, she tells her mother or a close female relative who provides pads and more information as needed. Women from these villages who had their menstruation before CRHP’s intervention remember that they also asked their mother’s or close female relatives for help when their first period came, but knew nothing beforehand and were not given any health education from their mothers; strong cultural beliefs were given in place.

In NPVs, there has been no major shift in thinking. There are various female health educators working in NPVs. Some information is being taught, but it is not as encompassing as in PVs. Some girls have adopted healthier habits such as bathing and using proper abortion material during their menstrual period, the grip of religious superstitions regarding this time remain strong in all generations and health educators have not had success in breaking them down in their own families or outside of them.

## Discussion

Mothers, sisters, female relatives and female health educators all play a role in developing and educating the adolescent girl in the Jamkhed area about menstruation. In PV, there is adequate and comprehensive menstrual education. VHWs work hard to and have mostly succeeded in educating both women and men about multiple aspects of menstruation. There has been a clear shift in beliefs surrounding menstruation over the generations that CRHP has been involved with these villages. Girls in these villages have a reliable source of menstrual and reproductive education through the AGP and VHWs, and the information is being shared and spread through confident friends and sister who are unashamed of their menstruation. Additionally, superstitious behaviors have significantly decreased due to the health education provided in these villages. All generations have access to the information at many different points such as women's groups, self-help groups, AGPs, men's groups and farmers groups and CRHP's campus – all of the information being shared is standard and scientifically based. There is a greater understanding of the biology of menstruation and of the regular and irregular symptoms of menstruation in PVs.

However, many VHWs still justify the importance of menstruation as being the ability to get married and bear children. While it is true that menstruation is a tell-tale sign that a woman is entering her reproductive age, it can be damaging to pin all importance on this. Many of these girls are also going on to get a college education before marriage and should not be expecting that their period marks the time for them to immediately think of marriage and children, if this is not their desire. More importantly, in a society where the parents play a large role in the marriages of their children, the mothers and fathers being educated should not associate menstruation only with marriage and childbirth as menarche naturally comes much earlier than

the legal age of 18 when a girl can be married and even though menarche occurs, a girl is going through the changes of puberty and is not yet ready to bear children.

As has been well documented in many cultures, mothers still act as the primary confidant at the time of menarche. This seems both expected and natural as a girl relies heavily on the mother first for survival in infancy and toddler years and later through adolescence, when she has come to know she is a distinctly different gender than her brothers and father, for understanding her own body and role in society. It will not be possible in every case to speak with the mother at the time of menarche, but most women looked to a close female relative. However, there is clearly some disruption in the system as one subject from a NPV noted she was too shy to speak with her mother about the topic of menstruation and instead relied only on her sister. This is an unexpected result and additionally is concerning as that means if menstrual complications, pains or other symptoms were to arise it would be difficult for this subject to seek medical care without the accompaniment of her mother. Also, though puberty can be an awkward and uncomfortable time for some girls, this should not reach the point of silence on menstruation. This subject was uncomfortable approaching her mother about the topic, and her mother also did not attempt to educate her daughter leaving the subject without menstrual education. The channels of communication should be open, at least between females in a family, because menstruation is a large and important change which can be hard to understand without support and guidance in the first few years.

Cultural beliefs may always surround important points in the lives of community members; from birth to marriage and beyond there are ceremonies and ‘superstitions’ in all cultures. However, in NPVs the societal expectations during menstruation are rigorous and harmful to girls and women. All of the village women from NPVs engaged in daily changes that alienated them from

surrounding family and friends and implied they were too dirty or impure to touch other's food and water during their menstrual period. Further, even well-educated health care providers engaged in these behaviors. This shows a failure of the education system in NPVs. It is unfortunate that the government model has not had success more similar to that of the VHWs in PVs where VHW do not engage in superstitious behaviors in their own homes nor with their in-laws. Though nurses and ASHAs are providing health education, they are not able to set a healthy example for those they are educating. Even though the health workers all stated they did not agree with specific menstruation-related behaviors, they are acting in a way that abides by old traditional beliefs. All health workers have or plan to educate their own daughters in a way that does not include superstitious behavior, their actions will inevitably be a clear model to their daughters and other young girls in the village. It will be a tough job to encourage women to take control of their menstrual period and to be safe and sanitary at the time if the educators are not also visual model of it – if they cannot “practice what they preach”.

The actions of CRHP have made a significant impact on the menstrual education and health of the PVs when compared to the government interventions and education programs occurring in NPVs. VHWs have had more success, specifically in educating older generations than have ASHA or government nurses. This success is likely due in part to their multi-level strategy which includes high levels of involvement with communities and support for adolescent girls and women's empowerment from many community members and in many forms. NPVs lack the infrastructure and HR support that has allowed for the empowerment of female leaders to become effective educators the taboo topic of menstruation. The most important aspect remains to educator mothers who can pass on education and be role models for their daughters which will continue through new generations.

### *Recommendations for Further Study*

This study was considerably small, though enlightening. It is exceptionally important to expand the number of participants to gain a more accurate picture of the situation in this area. CRHP has had influence in many villages in the Jamkhed area, for varying lengths of time. It would be prudent to look more specifically at the history of each village. Additionally, it could be interesting to consider the interaction of female educators with the men in their villages. All VHWs noted they would be comfortable speaking with males about this topic, but it was not made clear by other workers or village women.

Many female leaders in NPVs stated they would educate their daughters to behave differently than they themselves were taught as they do not believe or approve of superstitious behaviors surrounding menstruation. Returning in 10-20 years to repeat the research, potentially on a much larger scale, would show the success of these women with newer generations.

This study could also be replicated in any area of India, or internationally. It was a simple process which quickly showed the means in which women received menstrual health education and information. This could be implemented in any community which was excelling in menstrual hygiene to explore the education process or in communities suffering from taboos and stigmas to understand where education programs could be added to facilitate better menstrual health practices.

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## Appendix 1.

### Guideline of Interview Questions.

#### *Doctor/ Health Care Professional*

1. What is your name?
2. What is your position at the hospital?
3. How long have you worked in this position?
4. What is a typical visit with a patient like for you?
5. How do you feel about the state of menstrual health / hygiene in the patients you see?
6. Tell me about issues or diseases related to poor menstrual hygiene that you tend to see?
7. What kinds of misconceptions do your patients have about menstruation?
8. What do you tell a woman after birth about her menstrual period or hygiene?
9. What ages of women do you talk to about menstruation? Will you tell a girl who has not gotten her period about menstruation?
10. What do you say to men (husbands or fathers) about menstruation?
  - a. Do you talk about menstruation near them / while they are within earshot?
11. Where do you think women are getting their information about menstrual practices from?

#### *ASHA /ANM/VHW*

1. What is your name?
2. How old are you?
3. Do you have children?
4. Describe an average visit to a family.
5. Since beginning your work, what have you learned about menstruation?
6. What misconceptions do women you have met had about their period?
7. Describe some of the times when you have counseled women who have become sick due to something related to menstruation practices?
8. When do you talk to women about their menstruation?
9. What do you tell a woman after birth about her menstrual period or hygiene?
10. What ages of women / girls do you talk to about menstruation?
  - a. Do you talk to girls before their first period about menstruation?
11. In your opinion, what do the women you meet need to know more about related to menstruation?
12. What do you think are the most important aspects of menstrual hygiene?
13. How could the women in this village have healthier and happier menstruation?
14. What do you say to men (husband or fathers about menstruation)?

- a. Do you talk about menstruation near them / while they are within earshot?

*Mother*

1. What is your name?
2. How old are you?
3. How many children do you have?
4. Tell me about the first time you got your period?
5. Who talked to you about menstruation first?
6. How did you feel about getting your period?
7. When you lived at home and you were menstruating, did you change your daily routine at all?
8. When you started menstruation, did you make any big life changes?
9. Who taught you more about menstruation as you grew older and what did you learn from them?
10. Now when you menstruate, do you need to change your daily routine at all?
11. When you are menstruating how do you stay and your family stay clean / sanitary / healthy?
12. How do you feel about your menstruation now?
13. When you are menstruating do you attend religious ceremonies or go into temples?
14. What will you / have you told your daughters about menstruation?
15. Do you want other women to teach your daughters about menstruation? Do you want them to learn about menstruation from ANMs/ASHAs/School?

*18+ Unwed*

1. What is your name?
2. How old are you?
3. How many siblings do you have?
4. Tell me about the first time you got your period?
5. When you are menstruating, do you change your daily routine at all?
6. Who first taught you about menstruation and what did you learn?
7. Who else taught you about menstruation and what did you learn?
8. Has anyone told you why you menstruate?
9. How do you feel about menstruation?
10. Do you think menstruation is dirty? What taboos do feel surround menstruation?
11. When you are menstruating how do you stay clean / sanitary?
12. Do you have access to sanitary pads? Who buys them for you? Do you have access?
13. Who will teach your younger sisters about menstruation?
14. What do you want your younger sisters to know about menstruation?

## Appendix 2

**Table 1. Interviews Completed.**

Project Village		Non-Project Village	
	# of interviews		# of interviews
VHW	3	VHW	N/A*
VHW Trainer	1	VHW Trainer	N/A*
Government Employed Nurse	1	Government Employed Nurse	2
Government Employed ASHA	1	Government Employed ASHA	2
Women 18-30 y	3	Women 18-30 y	2
Women 31+	4	Women 31+	3

\* NPVs do not have VHWs

**Table 2. Awareness of Menstruation before Menarche.**

Age	Aware of menstruation before menarche		Not aware of menstruation before menarche	
	PV	NPV	PV	NPV
18-30	3	0	0	2
31+	0	1	4	1

**Table 3. Confidant at the time of Menarche.**

Age	Confided in Mother or Mother in Law		Confided in Sister		Confided in other Female Figure	
	PV	NPV	PV	NPV	PV	NPV
18-30	2	1	1	1	0	0
31+	2	2	0	0	2	0