

# Community Based Study of Spontaneous Abortions in Rural, Tribal Women of Low Resource Communities

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## Abstract

Spontaneous abortions (SA) occur in 10-15% of clinical pregnancies, but still are subject to continuing investigations because of paucity of rural, community based information.

**Objectives:** To know demography, health seeking practices, opinions of rural tribal women.

**Material Methods:** Community based study was carried out by door to door visits in 118 villages, 65 in Melghat region of Amravati, 53 villages near Sewagram of Wardha, Maharashtra, India. Information from women of 15-44 years who had SA within 5 years was collected. Focus Group Discussions were also held in villages with women, irrespective of age, whether they had SA.

**Results:** In villages near Sewagram, of 549 women who had SA, 331 (60.29%) did not use health facility for SA care, 329 managed by family members, 2 traditional birth attendants, 218 used health facilities. (17.6% Medical college, 16.93% Private hospitals, 2.36% Sub-centers, 1.63% District Hospital, 1.09% Primary Health Centers, Private Specialists 11.83%). In Melghat, 1217 reported SA, and 1212 were managed by family, 5 used health facilities, [3DH, one MC, one PH]. In villages near Sewagram 72%, in Melghat region 99.58% said abortions were uneventful. Village vital records revealed 1.3 - 4.5% SA in Melghat, 2.6-5% in Sewagram villages. FGDs revealed women had ignorance, misconceptions, about abortions, more in Melghat. In their traditional wisdom, women had some scientific knowledge, but did not talk about need of care, prevention of complications and possibility of recurrence.

**Conclusion:** Research about traditional therapies, reverse pharmacology, private sector for abortion care, policies, programs and services, is needed.

**Keywords:** Spontaneous Abortion; Care Seeking; Home Management

## Background

Abortion is the most common adverse outcome of pregnancy. The reported occurrence of spontaneous abortions (SA) is around 10 to 15% of clinically recognized pregnancies [1,2]. Yet its occurrence, underlying causes and sequelae are subject to continuing investigations, and understanding. Sometimes SA occurs so early in pregnancy that the woman

herself is not aware of her own abortion. If a woman aborts before missing or near her menstrual period dates or if her periods are not regular, she might not even know that she was pregnant, so never knowing that she aborted and so abortion is neither reported nor recorded. So the numbers of SA are much higher than known even by women and much higher than recorded. The role of demographic factors is also not obvious. Whatever the reasons when abortion occurs

woman needs to seek care because of immediate dangers, sequelae and problems of recurrence. It is essential that the woman's health does not get affected adversely because of bleeding or other complications, which affect her health and also recurrence needs to be prevented. However not much is known about community based burden of SA in rural tribal women and their health seeking practices. Women's perceptions about abortion care also need to be known for policies, programs and services for abortion care.

## Objective

Present community based study about SA was carried out to know about magnitude, sociodemographic factors, places of abortions, care sought and views of rural tribal women.

## Material and Methods

Community based study was carried out after approval of ethics committee of the institute in 53 villages near Sevagram in Wardha District and 65 of Melghat region in Amravati District, in Maharashtra province of India, making a total of 118, with population around one lac ten thousands. In the villages of Melghat, hilly forestry region, there were access problems, lack of infrastructure, scarce health services and extreme poverty. A pretested tool was used in local language, which had some closed ended questions, for yes and no answers and other open ended. In each village every fourth house was visited to interview women of 15-44 years, so as to get study subjects, who had SA in last 5 years, to try cut down on memory bias. Advantage of visiting every fourth house was that the information could be used for comparison of demography of women who had abortion with those who did not have abortion. Also because every house was not visited, a lot of time was saved without compromising the sample size needed for the study. Disadvantage was that real burden of SA had to be found from other sources, which of course could be less than the real, because of under reporting. Informed consent for recording information on the tool was taken before inclusion in the study. One to one, face to face interviews were conducted in the villages. Total 3940 subjects were interviewed. Women were asked about their age, parity, economic class and education. Those women who had SA, were asked about abortion, numbers, duration of pregnancy at which abortion occurred, care sought, place of care, private or public health facility.

It was decided to ask about 2 SA if women had more abortions. However there were only 6 such cases amongst all the women interviewed in both the sets of villages, with no special issues in the 6 cases. Focus group discussions (FGDs) were also held. Women were asked about their perceptions and common beliefs about SA. In FGDs there was neither age nor abortion criteria. All those women who were willing were

invited, 10-15 in a group, irrespective of age and whether they had abortion or not.

## Results

In villages near Sewagram 549 women with SA (including 80 with 2 SA, 4 with 3 and one with 4) were interviewed. In villages of Melghat 1217 women with SA (including 91 with 2 SA and one with 3SA) were interviewed. In villages near Sewagram 23% women were of 20-24 years and 43% of 25-29 years, and in Melghat region 42% women were of 20-24 years and 39% of 25-29 years, significant difference (p value- 0.0018) in villages of two districts of the same province, more young women in villages of Melghat, which had more poverty than villages near Sewagram. Teenage girls were significantly more in villages of Melghat region (4%) compared to those in villages near Sewagram (0.6%) (P value = 0.0014). More women were of advanced age (35-39yrs and 40-44years) in villages near Sewagram (7%) than in Melghat (2.6%) (Pvalue<0.05). However age groups were similar whether they had abortion or not in both the sets. Over all in both the sets of villages, most of the women had only schooling but significantly more women were illiterate in the villages of Melghat (19%) compared to villages around Sewagram (2.6%) (P value <0.05). There was no difference in education whether women had abortion or not in both the sets of villages. Overall second, third gravida were of almost similar numbers in both the districts, however fourth gravida were more in Melghat region (6.4%) compared to villages near Sewagram (1.1%). There was significant difference in parity of women between two sets of villages of same province. In villages near Sewagram, 45% women had two births and two live children, 0.8% had four births and 4 live children, and in Melghat region 27% women had two births, 6.5% had 4 births, and 6% had 4 live children. In villages near Sevagram in 15% cases first pregnancy ended in SA and in Melghat region 24% had their first pregnancy ending as SA, (P value 0.0012). Women with two births and SA were more (46%) in villages near Sevagram compared to those in villages of Melghat (28%). Over all parity was similar whether they had abortion or not. In Melghat region, out of 1217 women who reported SA, 33 (2.71%) had aborted pregnancy of less than 6 weeks, 530(43.54%) pregnancy of 6-9 weeks, 419 (34.42%) 10-13 weeks, 174 (14.29%) 14-17 weeks and 61 (5.01%) 18-20 weeks. Ratio of 4:1 of first trimester and second trimester abortions was similar to what was known since years and similar to women of villages near Sevagram. In Melghat region, almost all, 1212 (99.58% of 1217) women aborted at home and did not go to any health facility, significantly more than those in villages near Sevagram. Only 3 women (0.24%) went to District hospital and were managed by Medical officers, one (0.082%) by Nurse Midwife at private hospital and one (0.082%) by specialist at Medical College. All 92 women who had two

SA, stayed at home, one (1.08 %) of 92 women had aborted less than 6 weeks pregnancy, 28(30.43%) of 6-9 weeks, 36(39.13%) 10-13 weeks, 24(26.08%) between 14-17 weeks and 3(03.26%) aborted 18-20 weeks pregnancy. FGDS were also conducted in the villages for better understanding of the rural tribal women's awareness, perceptions related to abortions and care seeking. No one said that there could be a detectable medical cause for abortion which could be treated for preventing recurrence. Only around 20% women had some awareness about SA that too only in villages near Sewagram. Some women who themselves had abortions had complete ignorance. They said whatever and whenever happened was God's will and needed to be accepted.

## Discussion

Community based study of "Magnitude of SA and Care Sought by Rural Tribal women of two Districts of Maharashtra, India," was carried out to know the ground realities related to SA. In Melghat region there were access problems, lack of resources, and lack of awareness, scarce health services and extreme poverty. Study revealed that women with or without abortion did not have differences in demographic features. However there were significant differences between SA cases of villages of two districts of the same province. In a study association between education and SA was found in urban but not in rural women and there was no difference between the two subgroups with respect to the occupation [3]. SA have been reported to occur in 10-15% of clinically recognized pregnancies in studies [4,5]. Fifty percent of SA is caused by fetal chromosomal anomalies. Maternal causes included maternal age, structural anomalies of the genital tract, infections, maternal disease, and environmental factors [6]. Since meiotic chromosome segregation errors in oocytes account for the majority of embryonicaneuploidies which increased with age, it was believed that the risk of having a miscarriage was strongly influenced by age of woman [4]. A woman who has never aborted has an increasing risk of aborting as she grows older. It was revealed that of the women in villages near Sewagram 23% women were of 20-24 years and 43% were of 25-29 years, and in Melghat region 42% were of 20-24 years and 39% women of 25-29 years with significant differences in two regions, but most women were young. Teenage girls were significantly more in Melghat region (4%) compared to those in villages near Sewagram (0.6%), as in Melghat region many more women had their first pregnancy ending in SA. Advanced age (35-39yrs and 40-44years) women were more in villages near Sewagram (7%) than in Melghat region (2.6%),but not many beyond 35 years. In Melghat region, of 1217 study subjects 33 (2.71%) SA were of less than 6 weeks pregnancy, 530 (43.54%) of 6-9 weeks, 419 (34.42%) 10-13 weeks, 174 (14.29%) 14-17 weeks and 61 (5.01%) 18-20 weeks, ratio of 4:1 of first trimester and second trimester SA, similar to

women of villages near Sevagram and similar to what was known since years. In villages near Sewagram most of the women, (60.29%) aborted at home used traditional items and did not use health facility, but 39.7% women did seek services from health facilities, 2.36% from Sub-centers, 1.09% from PHCs, 1.63% DH, 16.93% from PH, and 17.66% from MC. But in Melghat region only 0.4% women sought care from health providers and 99.58% women stayed at home. There was no severely ill woman, no near miss, and no death due to abortion in these villages during this period. So whatever was done by family members did help them. It is essential that service providers, program managers and policy makers are aware and try to learn lessons. Women who had SA mostly stayed at home. There is also need for research on traditional therapies and reverse pharmacology. Research should also be done for future abortion care. Those few women who used health facilities, quite a few used private facilities even with low resources. Need of privacy for abortion care seemed deep rooted.

There were neither differences in age nor education in women with or without abortion, but there were differences in study subjects of villages of two regions of the same province. Analysis also revealed disparity in education, profession, economic status of study subjects in both the regions but not in women with or without abortion. In FGDS about knowledge and common beliefs of SA in rural tribal women, wide range of views were reported which was difficult in personal interviews. In FGDS though the number of women who talked about SA was small, there was some scientific wisdom in women about their views on which health providers could built. Wilcox, et al. [7] reported that the fact that one of every four recorded SA was not recalled later suggested that "recall bias" could be a problem in retrospective studies. We had, kept duration of five years to curtail on memory bias. During FGDS in villages near Sewagram, only 29% women opined abortion as break down of 2-3 months of pregnancy, anything like abortion, generally called 'GarbhaPaat' in India. In villages in Melghat region 18% were completely ignorant of SA and said that they never experienced and had no idea of whether there was anything like 'abortion'. Only 9% women talked of abortion as "Paetgirna", Pet usually meant 'abdomen/ stomach', they meant pregnancy, 'girna' meant falling. So while there was a lot of ignorance with a lot of difference in awareness about SA in general, in women of villages of Melghat region where there was more poverty with illiteracy, access problems, less health facilities compared to villages near Sewagram, there was some knowledge about SA, something to do with technicalities of SA. It is essential that women know that some disorders could cause SA, for at least thinking about taking advice for abortion care and future prevention. Though they could not exactly tell, many had their logics of causes of abortions and care like avoiding heavy work, sexual

relations, some food items but, these numbers were much smaller in Melghat region. Even worldly wisdom which could be linked to science was much less and in small numbers of women in Melghat region. There were more misconceptions. Normal tissue change does take six months, which was said by one third of women as the interval for next pregnancy. If health care from health facilities was sought, it was mostly private sector. Women need to know that there are medical reasons of abortions, complications, possibility of recurrence and so need of care. Also policy makers, program managers and service providers need to know various aspects and behavior of women about abortion, causes as well as care seeking.

## Conclusion

Study revealed that women with or without abortion did

not have differences in demographic features. However there were significant differences between SA cases of villages of two districts of the same province. Most women were young in Melghat and many had their first pregnancy ending in SA. More than 60% women, aborted at home, in Sewagram region, In Melghat region almost all stayed at home used traditional items. There was a lot of ignorance, lack of awareness in Melghat region. There was more poverty with illiteracy, access problems, less health facilities. Women did not know that there are medical reasons of abortions, complications, possibility of recurrence and need of care. There was no severely ill woman, no near miss, no death due to abortion in these villages during this period. So whatever was done by family did help them. It is essential that service providers, program managers and policy makers are aware and try to learn lessons. There is also need for research on traditional therapies, and reverse pharmacology.

Pregnancy in Weeks	≤6wks	>6-≤9wks	≥10-≤13wks	≥14≤17wks	≥18-	Total	
					≤20wks		
No.	16	205	208	67	53	549	
%	2.9	37.34	37.8	12.2	9.6	100	
Place	Home	Sub-center	PHC	District Hospital	Private Hospital	Medical College	Total
No.	331	13	6	9	93	97	549
%	60.29	2.36	1.09	1.63	16.93	17.66	100
Care Provider	Family	TBA	ANM/ASHA	Doctor	Specialist	Total	
No.	329	2	1	152	65	549	
%	59.9	0.36	0.18	27.68	11.83	100	

**Table 1:** Spontaneous Abortions in Villages near Sewagram in Wardha District Maharashtra.

Total- 549

**PHC-** Primary Health Centre; **TBA-** Traditional Birth Attendant

**ANM-** Auxiliary Nursing Midwife; **ASHA-** Accredited Social Health Activist

Total-1217							
Pregnancy in weeks	≤6wks	>≥6-≤9wks	≥10-	≥14-	≥18-≤20wks	Total	
			≤13wks	≤17wks			
Number	33	530	419	174	61	1217	
%	2.71	43.54	34.42	14.29	5.01	100	
Place	Home	Sub-centre	PHC	District Hospital	Private Hospital	Medical College	Total
Number	1212	-	-	3	1	1	1217
%	99.58			0.24	0.082	0.082	100
Care Provider	Family	TBA	ANM/ASHA	Doctor	Specialist	Total	
Number	1212	-	1	3	1	1217	
%	99.58		0.082	0.24	0.082	100	

**Table 2:** Spontaneous Abortions in Villages in Melghat Region of Amravati District of Maharashtra.

**PHC:** Primary Health Centre; **TBA:** Traditional Birth Attendant

**ANM:** Auxiliary Nursing Midwife; **ASHA:** Accredited Social Health Activist

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