Incidence of Fetal Mortality and Abortion Among the Baiga Tribe of Chhattisgarh

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Abstract

It is a distinguishing human feature which separates man from the animal: just as use of contraception is found only in human society, abortion is also exclusive to it. It is the reason that human reproduction is not a bare biological process. Instead, biological process constitutes a fragmentary (though essential) part in the gamut of human reproductive system. The objectives of the study are to find out the incidences of fetal death and abortion and their associated bio-cultural factors. Objectives of the present study are to explore the incidence fetal death and abortion and to find out the associated causes of the incidence fetal death and abortion among the Baiga tribe of Chhattisgarh. Structured interview schedule and non-participant observation were used for collection and cross validation of data. The results were analyzed using the 16.0 SPSS package. 21.77% respondents, whose wives were pregnant in the past, had abortion. From the point of view of reproductive health, this figure is quite on a higher side and shows how serious is the situation regarding abortion in the Baiga tribe. Such a high rate of abortion is a pointer to stagnation in the population of the Baiga of Chhattisgarh. At least it can be said a major factor in its nonproliferation.75 abortion cases which actually come to 94.9% were the cases of miscarriage or what is called spontaneous abortion. The cases of induced or deliberate abortions were 4, which comes to 5.1%. On the basis of these facts, the possibilities mount up that malnutrition, anemia and morbidity among the Baiga women, are on an ascending scale. The gravity or seriousness of the prevailing condition makes the conjecture well- founded that the benefits of reproductive health facilities are perhaps not reaching the inmates directly and adequately.out of the group brought under study, one third respondents i.e. - 23.97%, whose wives had conception had delivered stillborn babies, such large number of stillbirths draws one attention to the seriousness of reproductive health problem in the Baiga. This also accounts for stagnation in their population growth.

Keywords: Incidence; Fetal; Mortality; Abortion; Miscarriage; The baiga.

Introduction

It is a distinguishing human feature which separates man from the animal: just as use of contraception is found only in human society, abortion is also exclusive to it. It is the reason that human reproduction is not a bare biological process. Instead, biological process constitutes a fragmentary (though essential) part in the gamut of human reproductive system. In human reproduction, like in many other fields of human life, socio- cultural ethos play quite a significant, even a decisive role, which in the major components of human reproduction - contraception and abortion, work as a controlling and directive force both implicitly and openly. For these very reasons,

abortion is a landmark parameter in reproductive health. And the male has a more effective role to play in it, such is the general feeling. Bain and Premi stated that "cultural anthropologists always focus on association between health and culture and suggest many a times to incorporate such socio-cultural norms and practices which have proved to be barrier in adopting modern medical health facilities".[1] "Fetal Death is death before the complete expulsion or extraction from the mother of a product of human conception, irrespective of the duration of pregnancy that is not an induced termination of pregnancy. The death is indicated by the fact that, after such expulsion or extraction, the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. Heartbeats are to be distinguished from transient cardiac contractions; respirations are to be distinguished from fleeting respiratory efforts or gasps".[2]

Chronological tendencies in late-fetal mortality in developed countries may have significant insinuations for equally the recent intensity and future trends in developing countries. In developing countries, the decline of child mortality remains one of the principal objectives for public health programmes, but little consideration is given to fetal mortality.[3,4] Around 2 million stillbirths – babies born with no sign of life at 28 weeks of pregnancy or later – occurred worldwide in 2019. Many of these might have been prevented with proper care. According to the latest data, the global stillbirth rate last year was 13.9 stillbirths per 1,000 total births. This equates to 1 in 72 total births resulting in a stillborn baby, or one every 16 seconds. Still, this number may be an underestimate, as stillbirths are often underreported.[5] Cutler et al. stated that infant mortality is a commonly used indicator of welfare in poor countries, where 30% of all deaths occur in childhood as against 1% in richer countries.[6] A large proportion of women still do not have service of skilled health professionals at the time of delivery. However, on average, skilled birth attendants cover 66% of births worldwide, while it is alarming low in some parts of Africa and Asia. The first hours, days and weeks after childbirth is a critical period for both mother and newborn infant. More than 500 000 women die each year due to complications of pregnancy and delivery.[7]

Objectives

The aims and objectives are as follows:

1. To explore the incidence fetal death and abortion among the Baiga tribe of Chhattisgarh.
2. To find out the associated causes of the incidence fetal death and abortion among the Baiga tribe of Chhattisgarh.

Methodology

This study is a retrospective, quantitative and exploratory and quasi qualitative research. Regarding the present study it has chosen the Baiga tribe. The Baiga is a tribe found in MadhyaPradesh and Chhattisgarh states of India. In Chhattisgarh state the largest number of Baigas is found in Kawardha (Kabirdham) district. According to Census of India (2011) their total population is 89,744 having 44,847 males and 44,897 females. Only 32.17% Baiga population are literate and 75.66% Baiga women are illiterate. Baiga tribe is considered one of the oldest tribes of India.

The universe of our sample is 363 married Baiga males belonging to age 18-49 years were selected through multistage random sampling. The widower, divorced and separated Baiga males were excluded from the present study because they lived without their spouses therefore, we were unable to assess their sexual health experiences. Decidedly concentrations of the Baiga tribe population are habituated at Bodla and Pandariya tehsils/development blocks of Kabirdham (Kawardha) district of Chhattisgarh. That is why, firstly selected Kabirdham (Kawardha) district of Chhattisgarh as a primary stage unit, then Bodla and Pandariya tehsils/development blocks selected as a secondary stage unit, after that 28 villages (19 villages from Bodla tehsil/development block and 9 villages from Pandariya tehsil/development block) selected as a tertiary stage unit. Finally, 363 married appropriate Baiga males i.e. 235 males from Bodla and 165 males from Pandariya tehsils/development blocks were randomly selected as the respondents in the manner of stratification by age, education, occupation etc. The villages were selected on the basis of higher density of Baiga population in the villages. The Baiga villages are found in scattered pattern, some villages are very small ranging from 20-30 households and some are having more than 30-60 households. Therefore, number of selected villages reached 28 villages for selecting 363 suitable Baiga males.Structured interview schedule and non-participant observation were used for collection and cross validation of data.The results were

analyzed using the 16.0 SPSS package. Pearson's chi-square test and multinomial logistic regression analysis were used to understand linkages between variables and to predict the responses of the incidences of fetal death and abortion among the Baiga tribe of Chhattisgarh.

Result and Discussion

Incidence of fetal mortality and abortion

Observation made in table no. 01show, 21.77% respondents, whose wives were pregnant in the past, had abortion. From the point of view of reproductive health, this figure is quite on a higher side and shows how serious is the situation regarding abortion in the Baiga tribe. Such a high rate of abortion is a pointer to stagnation in the population of the Baiga of Chhattisgarh. At least it can be said a major factor in its nonproliferation.

Table 1: Incidence of fetal mortality and abortions among the Baiga.

Status of incidence of abortions	No. of respondents' wives	Percent n=363
No	284	78.23
Yes	79	21.77
Total	363	100.0

The effect of various bio-cultural factors on incidence of abortion among the respondents' wives from chi-square test

Table 2: The effect of various bio-cultural factors on incidence of fetal mortality and abortion among the respondents' wives from correlation and chi-square test.

Independent variables	Pearson's Chi-square	
	χ^2	ρ
Type of family	4.107	.128
Age of the respondents	25.686	.691
Age of respondents' wives	40.375	.147
Educational status of the respondents	4.330	.363
Educational status of respondents' wives	1.049	.902
Total annual income	3.132	.391
Type of residence	10.190*	.017
Decision regarding number of children	1.165	.979

**Chi-square test is significant at the < 0.01 level (2-tailed).

*Chi-square test is significant at the < 0.05 level (2-tailed).

Table no. 02 also reveals that the incidents of abortion i.e. miscarriage of the Baiga women is found to be very meek and positively depended on their residential pattern i.e. mostly neolocal and patrilocal. It means these are unfavorable places for women, specially such bio-cultural problems compared to avenculocal and gharjamai type residential patterns among the Baiga.

Frequency of fetal mortality and abortion

Table 3: Frequency of fetal mortality and abortions among the Baiga.

No. of abortions	No. of respondents' wives	Percent n=79	Percent n=363
1time	55	69.6	15.15
2 times	21	26.6	5.78
3 times	1	1.3	.27
4 times	2	2.5	.55
Total	79	100.0	21.77
Mean & SD	1.36±0.64		

Table no. 03 proves the point that the mean number of fetal mortality and abortions in Baiga community is 1.36 ± 0.64. This implies that the couples that faced fetal loss and the mishap of abortion- per couple it might be once or more than once could be the possibility. From the medical point of view, this is a matter of serious concern. According to this table, 30.4% respondents, whose wives had miscarriage, had abortion two times or more than two times. 26.6% respondents' wives had to suffer the ordeal on two occasions, and (i.e. 5.78% respondents' even pregnant wives) had met with the mishap. One respondent's wife had abortion 3 times and two respondents' wives had 4 times abortion.

Miscarriage among the Baiga

Incidence of miscarriage or spontaneous abortion

As we all know, abortion can happen in two ways. The first is indeed or deliberate abortion. The second is miscarriage or spontaneous abortion. As far as folklife or bucolic society is concerned, the second kind of abortion – i.e. miscarriage- its chances and possibilities is more numerous and common. Its prevalence is wide spread. In the rural areas and villages, its reason is ascribed to the bane of gods and goddesses, evil spirits and ghosts, magic and witchcraft whose scourge is supposed to result in such ill- fated mishaps, such ungainly calamitous outcomes. However, the more candid and scientific explanation is general state of malnutrition among village women, their anemic condition, their serious ailments and, in a nutshell, the lack of health services and medical facilities, such problems, especially in countryside, are much too common, a fact accompli. With this perspective,

when investigation was carried out in the field of present study, the table no. 04 made it clear that 79 (21.77%) of Baiga respondents' wives had abortion.

Table 4: Miscarriage among the Baiga.

Status of incidence of miscarriage	No. of respondents' wives	Percent n=79	Percent n=363
No	4	5.1	1
Yes	75	94.9	20.66
Total	79	100.0	21.77

Out of this number, 75 abortion cases which actually come to 94.9% were the cases of miscarriage or what is called spontaneous abortion. The cases of induced or deliberate abortions were 4, which comes to 5.1%. On the basis of these facts, the possibilities mount up that malnutrition, anemia and morbidity among the Baiga women, are on an ascending scale. The gravity or seriousness of the prevailing condition makes the conjecture well-founded that the benefits of reproductive health facilities are perhaps not reaching the inmates directly and adequately.

The consequences of various bio-cultural factors on miscarriage among the respondents' wives from multinomial logistic regression analysis

Table no.05 shows, those Baiga couples who suffered miscarriage, what were those socio-economic and demographic conditions that could be possibly responsible for the mishap. The event of not occurring miscarriage was seen relative to incidences of miscarriage and under the various socio-economic and demographic characteristics as well as economic status, the respondents' wives reaching the age of motherhood, their intake of IFAT by them, their being beaten by the husbands during pregnancy, the recurrence of food taking during pregnancy, their age at marriage, their age group, the effects on them of their antenatal check-ups - all such phenomena were subjected to scrutiny. The results derived after analysis was - those Baiga couples who suffered miscarriage, upon the event, no socio-biological and demographic variables were found to have any significant effect. The main reason of such finding may be that the majority of couples had homogeneity of qualities in socio-economic and demographic characteristics, due to which no specific variables seem to show any significant effect.

Beliefs regarding causes of miscarriage

During the course of our discussion, as adumbrated earlier, in the rural community, a physical incident

like miscarriage is usually dubbed as a supernatural dispensation or regarded as a negative effect of human being's miscreant behavior. In the context of such superstition beliefs and prevailing atmosphere, attempts were made to sift out the

Table 5: The consequences of various bio-cultural factors on miscarriage among the respondents' wives from multinomial logistic regression analysis

Independent variables	Your wives have ever experienced Miscarriage: YES		
	β	df	p value
Economic status			
<20,000.00 rupees	.403	1	.736
≥20,000.00 rupees	0b		.
Maternity age			
<18 years	-.331	1	.780
≥18 years	0b		.
Status of consumption of IFAT By respondent's wives			
No	-16.085	1	.996
Don't know	1.280	1	1.000
Yes	0c	0	
Consumption of 100 IFAT by respondents' wives			
No	33.251	1	.992
Don't know	30.477	1	.993
Yes	0c	0	.
Pregnant wives have beaten by Baiga men			
No	-12.411	1	.994
Yes	0c	0	.
Frequency of food taken by the pregnant wives of the respondents			
One time	16.107	1	.999
Two times	.599	1	.687
Three times	-1.489	1	.
Four times	0c	0	.
Status of ANC taken			
No	-30.513	1	.990
Don't know	-31.446	1	.989
Yes	0c	0	.
Age at marriage of the respondents' wives			
<18 year	2.189	1	.208
≥18 years	0c	0	
Respondents' wives age group			
<31 year	.370	1	.802
≥31 years	0c	0	

*Reference category is: No b. This parameter is set to zero because it is redundant

reality and to arrive at the facts regarding abortion. Those respondents whose wives had abortion, they were interrogated, so that their personal views about recurring miscarriage could be sounded. The highest number of the respondents (around 44%) believed that the prime cause of miscarriage of their wives was witchcraft and sorcery. Sizeable number – 9.3% respondents opined that the chief cause of miscarriage their wives had was due to unauthorized assault or intrusion that the gods and goddesses made upon the wombs of ill- fated, expectant mothers. In this way, more than half of the respondents held preternatural powers responsible for miscarriage. Just opposite to such general misapprehension, 36% respondents, without holding any preternatural causes responsible for miscarriage, held the right view. According to them, malnutrition want of healthy diet during pregnancy, was the principal cause of miscarriage of their wives. At the same time, there were 10.7% respondents who showed ignorance. They could not tell what could be the possible cause or causes that their wives could not retain the conception and suffered miscarriage (Table no. 06)

Table 6: Beliefs regarding causes of miscarriage.

Way of perception	No. of respondents	Percent n=75	Percent n=363
Intrusion of deities	7	9.3	1.92
Witchcraft	33	44.0	9.09
Malnutrition	27	36.0	7.43
Don't know	8	10.7	2.20
Total	75	100.0	20.66

The consequences of various bio-cultural factors on beliefs regarding causes of miscarriage from multinomial logistic regression analysis

What are those socio-demographic characteristics and situations that could be held responsible in the formation of ideas of Baiga males regarding miscarriage- it is tried to unearth them. The data derived from the Baiga males - under such surmises and convictions are the intrusion of deities in the womb of pregnant ladies, the magical activities caused by sorcery and witchcraft, causing miscarriage, malnutrition of pregnant women responsible for such calamity - negations of such facts were held as a model. 'Don't know' in such models were taken as reference category, and the relative of the rest of the models was juxtaposed to Baiga males' bio-cultural and socio-demographic

conditions and the effect was weighed. The male Baigas' educational status, their age group, the age group of respondents' wives, the development blocks, family types and residential pattern- are the main factors which affect the opinion of the males. The results of the test are shown in table no.07. The observation of results shows that besides residences in different development blocks, no other variables have had any significant effect. From this test the finding is- for result, intrusion of deities is responsible for miscarriage relative to result 'don't know' about causes of miscarriage is positively affected by predictor Bodla tehsil with associated value of β = 3.484 and p = 0.025 at 5% level of significance. The result drawn is that those Baiga males of Bodla tehsil, for miscarriage of their pregnant women hold the evil effect of deities responsible, compared to which those Baigas residing in Pandariya tehsil, do not hold such a cause responsible for miscarriage. As per my personal observation Bodla tehsil- the particular villages under Taregaon area were the study was conducted - such village areas, as compared to Pandariya tehsil of Kui- Kukdur area, from the point of view of infrastructural development, are highly backward. This is the reason that the Baiga males of Bodla tehsil, their perception of miscarriage is more atavistic and unscientific.

Causes of induced or deliberate abortion

During the courses of our study, precise information was elicited from the respondents as under what compelling circumstances they conceded to abortion willingly. What made them take up such stringent measures that they subjected their pregnant wives to this kind of denigration of life and deny them motherhood? Table no. 08 makes the picture clear. Out of the 4 respondents' wives, who volunteered for abortion, 0.27 % (1) respondent said that the child born earlier was too small. It was implied that the gap between the two babies was not sufficient. So to maintain a proper age – gap, the abortion was willingly undergone. In a similar vein, 0.27% (1) respondent justified his wife's consent for abortion. He explained that already they had four children. Now they no longer wanted any more issues.

On the other hand, there were 0.55% (2) respondents who admitted that as their wives were very fragile in health, physically they were not fit for child bearing. So, they let their wives go in for termination, of their own accord.

Table 7: The consequences of various bio-cultural factors on beliefs regarding causes of miscarriage from multinomial logistic regression analysis.

Independent variables	Intrusion of deities		Witchcraft		Mal nutrition	
	β	p	β	p	β	p
Educational status of the respondents						
Illiterate	.033	.980	.093	.923	-.314	.757
Literate	0ᵇ	.	0ᵇ	.	0ᵇ	.
Respondents' age group						
<36 year	-.277	.823	-.243	.778	-.101	.915
≥36 years	0ᵇ	.	0ᵇ	.	0ᵇ	.
Respondents' wives age group						
<31 year	1.355	.997	-10.661	.968	-8.939	.974
≥31 years	0ᵇ	.	0ᵇ	.	0ᵇ	.
Development Blocks Under study						
Bodala	3.484*	.025	1.016	.384	2.200	.064
Pandariya	0ᵇ	.	0ᵇ	.	0ᵇ	.
Type of family						
Extended family	18.959	.	-.592	.	-.804	.
Joint family	-1.498	.997	9.735	.974	9.113	.976
Nuclear family	0ᵇ	.	0ᵇ	.	0ᵇ	.
Type of residence						
Avanculoca	.052	1.000	2.478	.998	-10.130	.993
Patrilocal	9.993	.950	10.247	.949	11.396	.943
Neolocal	0b	.	0b	.	0b	.

*The reference category is: Don't know. b. This parameter is set to zero because it is redundant

Table 8: Causes of the induced or deliberate abortion.

Causes of induced abortion	No. of respondents' wives	Percent n=4	Percent n=363
Diminutive age of the last child	1	25	0.27
Weaknesses of the wives	2	50	0.55
Don't want to more child	1	25	0.27
Total	04	100.0	1
Abortion specialist	No. of cases	Percent n=4	Percent n=400
"Baiga/Vaidhya"	4	100.0	1.0

Stillbirth among the Baiga

Incidence of stillbirth

The problem of stillbirth like the menace of miscarriage is a big reproductive health problem. In a way, it is of greeter magnitude than that of miscarriage. For not only does it have deleterious effect on the physical health of the expectant mother, she feels so humiliated and insulted by her own people in the family and also by those in her community, that life becomes a veritable hell for her. So wretched and accursed she feels within. So traumatized she becomes that her physical, mental and social health is totally shattered. Thus, the problem of still birth is more alarming and nerve wrecking than the problem of miscarriage. The main reason of her feeling so woe-begon is that for 8 to 9 months the lady nurses the child in her womb and when she gives birth to it, the baby comes out as stark dead. This is a terrible shock to the young mother and to the whole of her family, table no. 09 makes the painful fact very clear, out of the group brought under study, one third respondents i.e. - 23.97%, whose wives had conception had delivered stillborn babies, such large number of stillbirth draws one attention to the seriousness of reproductive health problem in the Baiga. This also accounts for stagnation in their population growth.

Table 9: Stillbirth among the Baiga.

Status of Prevalence of Stillbirth	No. of respondents' wives	Percent n=363
No	276	76.03
Yes	87	23.97
Total	363	100.00

Frequency of stillbirth

From the perusal of table no. 10 it learn that out of 87 respondents' wives who gave birth to still born babies out of them, respectively 67.81 had still birth one time; 20.68% two times; 08.4% three times; 03.44% four times. In this way, 32% and above respondents' wives had given still births more than two times. Conclusion can be drawn with impunity on the basis of such facts that the dirt of reproductive health facilities is blatant in the Baiga tribe. The government schemes like 'Janani Suraksha Yojana' are totally unsuccessful.

Table 10: Frequency of stillbirth..

No. of stillbirths	No. of respondents' wives	Percent n=87	Percent n=363
1 time	59	67.81	16.25
2 times	18	20.68	4.95
3 times	7	08.04	1.92
4 times	3	03.44	0.82
Total	87	100.0	23.97

Beliefs regarding causes of stillbirth

The real causes of still birth and miscarriage in the Baiga community could possibly be found out, if medical tests and investigation were made

right when such incidents had occurred. After the mishaps were over, it was very difficult to trace out the causes. Hence, as an afterthought, the perceptions of the male Baiga are recorded, after the incidents took place. The information collected from them as hindsight is presented here. As per table no. 11, the respondents whose wives had delivered stillborn babies, almost half in number (i.e. 49.42%) said that the principal cause of stillbirth was witch craft and sorcery. Similarly, 11% respondents had such unshakeable premonition that the scourge and the onslaught of the village deities was the prime reason. They further disclosed their apprehension - that the babies were stillborn and the deities harmed the fetus mainly because the taboos, especially pregnancy related taboos were violated or there might have been some lacuna or shortcoming in worshipping and propitiating the deities. In consonance to such uncanny beliefs, 62.6% Baiga held some preternatural powers responsible causing stillbirths. Quite contrary to such large-scale misgivings 21.83% respondents were of the opinion that due to shortage of food their pregnant wives remained semi starved so the babies in the womb could not have proper growth and eventually died even before birth. Likewise, 16.09% respondents expostulated rather remorsefully that during their pregnancy their wives had suffered from some disease or the other which caused the death of the nascent before nativity. In the light of this glaring fact, likelihood was imminently felt that owing to high rate of malnutrition and morbidity among the ladies, the high incidence of still birth was a common thing.

Table 11: Beliefs regarding causes of stillbirths.

Way of beliefs	No. of respondents' wives	Percent n=87	Percent n=363
Invasion of divine being	11	12.64	3.03
Witchcraft	43	49.42	11.84
Malnutrition	19	21.83	5.23
Don't know	14	16.09	3.85
Total	87	100.0	23.97

Conclusion

A slightly of half of the Baiga couples have had faced the incidences of fetal mortality. This result reflects very serious ill reproductive health problems among the Baiga tribe of Chhattisgarh. It should be minimized and this is our paramount duty to reduce such kind of problem among this vulnerable human group. Although the results of this study do not clearly reveal what is the most important cause of these incidents of fetal death in the Baiga tribe, but most of the Baiga respondents believe that during pregnancy, the condition of maternal malnutrition and extreme poverty of their families is the main reason. The non-participant observation made by the researcher during the fieldwork is confirms that the main reason for incidences of large-scale fetal deaths in the Baiga tribe is the extreme poverty prevalent in them and the maternal malnutrition during pregnancy among the Baiga women.

References

1. Bain, B., Premi, J.K. "Concerns and Compasses for the Anthropological Research on the Fetal and Infant Death among Tribal and Rural Settings in India", International Journal of Science and Research. 2016; 5 (9):574 – 581.

2. Barfield,W., & Committee on Fetus and Newborn. Clinical Reports: Standard Terminology for Fetal, Infant, and Perinatal Deaths. Pediatrics. 2011; 128(1): 177-181.

3. Ahmed, Saifuddin, Michael, A. K., & Stephenson, R. (2006). "Ef fects of domestic violence on perinatal and early-childhood mortal ity: Evidence from North India.". American Journal of Public Health . 423-1,428.

4. Rustein, S., & Shah, I. (2004). Infecundity, infertility and childlessness in developing countries. Demographic and Health. 30-33.

5. UNICEF. Stillbirths.Unicef Data: Monitoring the Situation of Children and Women. Retrieved 29.10.2020 from https://data.unicef.org/topic/child-survival/stillbirths/.

6. Cutler, D., Deaton, A., & Lleras-Muney, A. . The Determinants of Mortality. Journal of Economic Perspectives. 2006; 20 (3), 97–120.

7. World Health Organization. Technical Consultation on Postpartum and Postnatal Care. Geneva 27, Switzerland: Department of Making Pregnancy Safer. 2008.