

Community Based Study of Awareness of Maternity Dangers Amongst Rural, Tribal Preconception and Pregnant Women

Shakunthala Chhabra*

Department of Obstetrics Gynaecology, Mahatma Gandhi Institute of Medical Sciences, Wardha, Maharashtra, India

*Correspondence to: Shakunthala Chhabra Department of Obstetrics Gynaecology, Mahatma Gandhi Institute of Medical Sciences, Wardha, Maharashtra, India; E-mail: chhabra_s@rediffmail.com

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ABSTRACT

Background: Every pregnant woman faces risk of complications which can cause severe illness or even death of mother and /or baby. Creating awareness about maternity dangers is crucial for safe birth, safe future of mother and baby. Although it remains unclear how awareness translates into appropriate actions, chances of better outcome are there.

Objectives: Community based study was carried out to know about rural, tribal preconception and pregnant women's awareness and perceptions of maternity dangers.

Material and Methods: After approval of institute's ethics committee, study was conducted in tribal communities of 100 villages of hilly forestry region, where mother child services were initiated after creating health facility in one village. Randomly minimum 20 and 10 preconception, pregnant women each, from every village, total 2400 preconception, 1040 pregnant women of 15 to 45 years age were interviewed by research assistant with help of pretested tool.

Results: Of 2400 Preconception women interviewed, 801 (33.4%) were aware of labour events, 298 (37.2%) mucoid discharge, 291 (36.3%) little bleeding, 212 (26.5%) labour pains. When asked about source of information, 300 (37.5%) said doctors, 291 (36.3%) Accredited Social Health Activists (ASHAs) and 210 (26.2%) nurse. Of 2400 preconception women, 1015 (42.29%) did talk of some maternity dangers, 403 (39.7%) said swelling over face and feet, 271 (26.7%) giddiness, 184 (18.13%) excessive vomiting and 157 (15.47%) bleeding, leaking with some overlap.

Of 1040 pregnant women, 910 (87.5%) were aware of labour events and 870 (83.7%) some maternity dangers, 474 (54.5%) preterm pains, 118 (13.5%) leaking, 97 (11.1%) epigastric pain, 73 (8.4%) headache, 67 (7.7%) vaginal bleeding and 41 (4.7%) loss of fetal movements with some overlap.

Conclusion: Only one third preconception and little more pregnant women had some awareness of maternity dangers, but it was scanty.

Keywords:

Preconception, Pregnant women, Maternity Dangers, Awareness

Introduction

Every pregnant woman faces the risk of complications, some not even predictable. They could lead to serious illnesses, death of mother or baby or both [1]. Creating awareness of maternity dangers is crucial for safe birth, safe mother and baby and their safe future. While it remains unclear how awareness translates into recognition of danger signs and also appropriate actions, however awareness about dangers is essential to seek prompt care to avert severe morbidity and mortality [2]. Underestimation of pregnancy-associated health risks could compromise decision-making and reduce demand for service. Women encounter maternity dangers during pregnancy, birth and in postbirth period. It is important, that women and health providers know and prevent serious complications and initiate

treatment earliest. Delay in seeking care is one of the key factors leading to maternal deaths, which is associated with lack of awareness about maternity dangers. So, it is essential that preconception and pregnant women are aware of maternity dangers so that they seek timely healthcare [3].

Objectives

Community based study was carried out to know about awareness and perceptions about maternity dangers in rural tribal preconception and pregnant women.

Material and Methods

The study was conducted amongst tribal communities of 100 villages of hilly and forestry region, Melghat of Amravati, Maharashtra, India after taking approval of ethics committee of the institute. Community based mother and child care activities were initiated in these 100 villages, after having created a health facility in one of these villages. Minimum 20 preconception

women from each village, making 2400 preconception and minimum 10 pregnant women from each village making 1040 pregnant women of 15 to 45 years included randomly, became the study subjects. Information was collected by interviewing women in the villages through pretested tool using language which women understood with some questions for yes or no answers and others for short answers. Information was collected about awareness regarding maternity dangers amongst preconception and pregnant women.

Results

Of 2400 preconception women interviewed, only 801 (33.4%) knew about the labour events, 298 (37.2%) mucoid discharge, 291 (36.3%) slight bleeding and 212 (26.5%) labour pains with some overlap. When asked about source of information, 300 (37.5%) said doctors, 291 (36.3%) Accredited Social Health Activist (ASHA) and 210 (26.2%) nurse. Of 2400 study subjects, 828 (34.5%) were of 20-24 years, 314 (37.9%) knew about labour events, 152 (48.4%) mucoid discharge, 97 (30.7%) bleeding, (20.7%) labour pains with some overlap. Sources of information were ASHAs in 174 (55.4%). Total 57 (77%) of 74 preconception women of 40-45 years could tell about labour events.

Of 2400 study subjects, only 216 (30.9%) of 699 who worked

away from their own villages knew about labour events, 106 (49.1%) said slight bleeding, 62 (28.7%) labour pains and 48 (22.2%) mucoid discharge. In 104 (48.9%) doctors were the source of information. Of 2400 study subjects, 89 women (60.5%) of 147 belonging to upper economic class were aware of labour events and 45 (50.6%) said slight bleeding. In 49 (55.1%) doctors were the source of information. Similarly 275 (31.5%) of 864 women of lower economic class were aware of labour events and 142 (51.6%) did talk of labour pains. In most cases (165 (60%)) ASHAs were the source of information. Of 2400 study subjects, 78 (74.3%) of 105 women who had one child were aware of labour events and 44 (56.4%) said slight bleeding. In 53 (67.9%) ASHAs were the source of information. Similarly 243 (47.9%) of 509 women with 5 or more children were aware of labour events, 81 (33.3%) labour pains, 85 (34.9%) mucoid discharge and 77 (31.7%) slight bleeding. Sources of information were doctors in 109 (44.9%), ASHAs in 104 (42.8%) and nurses in 30 (12.3%).

Of 2400 preconception women, 1015 (42.29%) were aware of some maternity dangers, 403 (39.7%) said swelling over face and feet, 271 (26.7%) giddiness, 184 (18.13%) excessive vomiting and 157 (15.47%) bleeding and leaking with some overlap. Overall awareness was scatchy.

Table 1: Preconception awareness of labor events.

Variables Age	Total	Awareness				Contents						Source of Awareness					
		No	%	yes	%	La- bour Pains	%	Mucal Dis- charge	%	Bleed- ing	%	Accredit- ed Social Health Activist	%	Nurse	%	Doctor	%
15-19	336	221	65.8	115	34.2	35	30.4	45	39.1	35	30.4	36	31.3	23	20	56	48.7
20-24	828	514	62.1	314	37.9	65	20.7	152	48.4	97	30.9	174	55.4	65	20.7	75	23.9
25-29	736	542	73.6	194	26.4	74	38.1	33	17.0	87	44.8	57	29.4	62	32.0	75	38.7
30-34	333	264	79.3	69	20.7	17	24.6	31	44.9	21	30.4	18	26.1	45	65.2	6	8.7
35-39	93	41	44.1	52	55.9	9	17.3	11	21.2	32	61.5	6	11.5	11	21.2	35	67.3
40-45	74	17	23.0	57	77.0	12	21.1	26	45.6	19	33.3	0	0.0	4	7.0	53	93.0
Total	2400	1599	66.6	801	33.4	212	26.5	298	37.2	291	36.3	291	36.3	210	26.2	300	37.5
Education																	
Illiterate	953	680	71.4	273	28.6	47	17.2	149	54.6	77	28.2	62	22.7	119	43.6	92	33.7
Primary	850	579	68.1	271	31.9	119	43.9	75	27.7	77	28.4	166	61.3	28	10.3	77	28.4
Secondary	506	315	62.3	191	37.7	46	24.1	55	28.8	90	47.1	51	26.7	58	30.4	82	42.9
Higher Secondary	91	25	27.5	66	72.5	0	0.0	19	28.8	47	71.2	12	18.2	5	7.6	49	74.2
Total	2400	1599	66.6	801	33.4	212	26.5	298	37.2	291	36.3	291	36.3	210	26.2	300	37.5
Profession																	
Housewife	275	169	61.5	106	38.5	28	26.4	58	54.7	20	18.9	27	25.5	38	35.8	41	38.7
Labourer	958	573	59.8	385	40.2	112	29.1	157	40.8	116	30.1	160	41.6	111	28.8	114	29.6
Own Farm Labourer	468	374	79.9	94	20.1	10	10.6	35	37.2	49	52.1	21	22.3	32	34.0	41	43.6
Work Away From Own Village	699	483	69.1	216	30.9	62	28.7	48	22.2	106	49.1	83	38.4	29	13.4	104	48.1
Total	2400	1599	66.6	801	33.4	212	26.5	298	37.2	291	36.3	291	36.3	210	26.2	300	37.5
Economic Status																	

Upper	147	58	39.5	89	60.5	16	18.0	28	31.5	45	50.6	22	24.7	18	20.2	49	55.1
Upper Middle	183	104	56.8	79	43.2	6	7.6	55	69.6	18	22.8	32	40.5	13	16.5	34	43.0
Middle	544	349	64.2	195	35.8	8	4.1	78	40.0	109	55.9	52	26.7	46	23.6	97	49.7
Upper Lower	662	499	75.4	163	24.6	40	24.5	65	39.9	58	35.6	20	12.3	57	35.0	86	52.8
Lower	864	589	68.2	275	31.8	142	51.6	72	26.2	61	22.2	165	60.0	76	27.6	34	12.4
Total	2400	1599	66.6	801	33.4	212	26.5	298	37.2	291	36.3	291	36.3	210	26.2	300	37.5
Parity																	
Po	105	27	25.7	78	74.3	15	19.2	19	2.4	44	56.4	53	67.9	12	15.4	13	16.7
P1	411	330	80.3	81	19.7	30	37.0	10	1.2	41	50.6	49	60.5	10	12.3	22	27.2
P2	672	464	69.0	208	31.0	69	33.2	91	4.4	48	23.1	51	24.5	58	27.9	99	47.6
P3	453	322	71.1	131	28.9	5	3.8	57	4.4	69	52.7	20	15.3	77	58.8	34	26.0
P4	250	190	76.0	60	24.0	12	20.0	36	6.0	12	20.0	14	23.3	23	38.3	23	38.3
P5 Above	509	266	52.3	243	47.7	81	33.3	85	3.5	77	31.7	104	42.8	30	12.3	109	44.9
Total	2400	1599	66.6	801	33.4	212	26.5	298	37.2	291	36.3	291	36.3	210	26.2	300	37.5

Overall of 1040 pregnant women, 910 (87.5%) were aware of labour events. 319 (98.8%) of 323 of 15 to 19 years, 29 (51.8%) of 56 illiterate, all 66 and 43 (100%) graduate and postgraduate studied, 901 (95.5%) of 943 housewives, 19 (47.5%) of 40 labourer, 91 (77.8%) of 117 women with more than five children were aware of labor events. (Table 1-3).

Table 2: Preconception awareness about maternity dangers.

Variables Age	Total	Awareness				Maternity Dangers							
		No	%	yes	%	Excessive Vomiting	%	Vaginal Bleeding /Leaking	%	Giddiness	%	Swelling over Face feet	%
15-19	336	268	79.76	68	20.24	12	17.65	8	11.76	21	30.9	27	39.7
20-24	828	543	65.58	285	34.42	66	23.16	30	10.53	103	36.1	86	30.2
25-29	736	413	56.11	323	43.89	59	18.27	60	18.58	88	27.2	116	35.9
30-34	333	103	30.93	230	69.07	26	11.30	39	16.96	36	15.7	129	56.1
35-39	93	31	33.33	62	66.67	8	12.90	10	16.13	14	22.6	30	48.4
40-45	74	27	36.49	47	63.51	13	27.66	10	21.28	9	19.1	15	31.9
Total	2400	1385	57.71	1015	42.29	184	18.13	157	15.47	271	26.7	403	39.7
Education													
Illiterate	953	611	64.11	342	35.887	93	27.193	58	16.959	108	31.6	83	24.3
Primary	850	374	44	476	56	56	11.765	43	9.0336	123	25.8	254	53.4
Secondary	506	355	70.16	151	29.842	27	17.881	44	29.139	28	18.5	52	34.4
Higher Secondary	91	45	49.45	46	50.549	8	17.391	12	26.087	12	26.1	14	30.4
Total	2400	1385	57.71	1015	42.29	184	18.13	157	15.47	271	26.7	403	39.7
Profession													
Housewife	275	150	54.55	125	45.455	39	31.2	18	14.4	20	16	48	38.4
Labourer	958	566	59.08	392	40.919	87	22.194	60	15.306	188	48	57	14.5
Own Farm Labourer	468	275	58.76	193	41.239	31	16.062	37	19.171	25	13	100	51.8
Work Away Form Our Village	699	394	56.37	305	43.634	27	8.8525	42	13.77	38	12.5	198	64.9
Total	2400	1385	57.71	1015	42.29	184	18.13	157	15.47	271	26.7	403	39.7
Economic Status													
Upper	147	60	40.82	87	59.18	14	16.09	10	11.49	5	5.75	58	66.7
Upper Middle	183	68	37.16	115	62.84	10	8.70	29	25.22	43	37.4	33	28.7
Middle	544	354	65.07	190	34.93	47	24.74	35	18.42	37	19.5	71	37.4
Upper Lower	662	379	57.25	283	42.75	76	26.86	22	7.77	52	18.4	133	47
Lower	864	524	60.65	340	39.35	37	10.88	61	17.94	134	39.4	108	31.8
Total	2400	1385	57.71	1015	42.29	184	18.13	157	15.47	271	26.7	403	39.7

Parity													
P1	516	277	53.7	239	46.32	54	22.6	38	15.9	99	41	48	20
P2	672	368	54.8	304	45.24	42	13.8	51	16.8	130	43	81	27
P3	453	281	62	172	37.97	36	20.9	27	15.7	13	7.6	96	56
P4	250	189	75.6	61	24.4	9	14.8	19	31.1	12	20	21	34
P5 Above	509	270	53	239	46.95	43	18	22	9.21	17	7.1	157	66
Total	2400	1385	57.71	1015	42.29	184	18.13	157	15.47	271	26.7	403	39.7

Overall of 1040 pregnant study subjects, 870 (83.7%) were aware of some maternity dangers, 474 (54.5%) said preterm pains, 118 (13.5%) leaking, 97 (11.1%) epigastric pain, 73 (8.4%) headache, 67 (7.7%) vaginal bleeding and 41 (4.7%) decrease in fetal movements, with some overlap. However awareness was scatchy. Of 1040 women, 536 (51.53%) were of 20-24 years and 416 (77.6%) of them were aware of some maternity dangers, 122 (29.3%) said less fetal movements, 106 (25.5%) vaginal bleeding, 78 (18.8%) preterm pains, 66 (15.9%) leaking, 33 (7.9%) headache and 11 (2.6%) said epigastric pain. Of 1040 women, 56 (5.3%) were illiterate and of them only 15 (26.8%)

were aware of some maternity dangers, 11 (73.3%) leaking, 4 (26.7%) headache, 36 (83.7%) of 43 post graduate studied were aware of some dangers, 21 (58.3%) preterm pains, 10 (27.8%) headache and 5 (13.9%) leaking. Of 1040 women, 43 (40.13%) were of upper economic class, 41 (95.3%) of them were aware of some dangers, 31 (75.6%) preterm pains, 6 (14.6%) leaking and 4 (9.8%) headache. Overall 195 (31.6%) of 618 of lower economic class were aware of some maternity dangers, 44 (22.6%) preterm pains, 21 (10.8%) leaking, 12 (6.2%) vaginal bleeding, 12 (6.2%) less fetal movements, 97 (49.7%) headache and 9 (4.6%) epigastric pain.

Table 3: Preconception awareness about maternity dangers.

Variables Age	Total	Awareness				Disorders				Action Possible			
		No	%	yes	%	Anemia	%	Hypertension	%	Iron supplementary medicine	%	Blood Pressure Record	%
15-19	336	135	40.18	201	59.82	127	63.18	74	36.82	116	57.71	85	42.29
20-24	828	422	50.97	406	49.03	210	51.72	196	48.28	157	38.67	249	61.33
25-29	736	420	57.07	316	42.93	143	45.25	173	54.75	145	45.89	171	54.11
30-34	333	223	66.97	110	33.03	51	46.36	59	53.64	38	34.55	72	65.45
35-39	93	34	36.56	59	63.44	9	15.25	50	84.75	18	30.51	41	69.49
40-45	74	15	20.27	59	79.73	18	30.51	41	69.49	10	16.95	49	83.05
Total	2400	1249	52.04	1151	47.96	558	48.48	593	51.52	484	42.05	667	57.95
Education													
Illiterate	953	416	43.65	537	56.35	206	38.36	331	61.64	224	41.71	313	58.29
Primary	850	464	54.59	386	45.41	180	46.63	206	53.37	215	55.7	171	44.3
Scodary	506	234	46.25	272	53.75	141	51.84	131	48.16	50	18.38	222	81.62
Higher Secondary	91	49	53.85	42	46.15	31	73.81	11	26.19	6	14.29	36	85.71
Total	2400	1249	52.04	1151	47.96	558	48.48	593	51.52	484	42.05	667	57.95
Profession													
Housewife	275	201	73.09	74	26.91	33	44.59	41	55.41	30	40.54	44	59.46
Labourer	958	450	46.97	508	53.03	260	51.18	248	48.82	25	4.92	483	95.08
Own Farm Labourer	468	253	54.06	215	45.94	52	24.19	163	75.81	20	9.3	195	90.7
Work Away Form Our Village	699	304	43.49	395	56.51	210	53.16	185	46.84	310	78.48	85	21.52
Total	2400	1249	52.04	1151	47.96	558	48.48	593	51.52	484	42.05	667	57.95
Economic Status													
Upper	147	58	39.46	89	60.54	30	33.71	59	66.29	37	41.57	52	58.43
Upper Middle	183	117	63.93	66	36.07	25	37.88	41	62.12	23	34.85	43	65.15
Middle	544	429	78.86	115	21.14	17	14.78	98	85.22	19	16.52	96	83.48
Upper Lower	662	181	27.34	481	72.66	222	46.15	259	53.85	205	42.62	276	57.38
Lower	864	423	48.96	441	51.04	264	59.86	177	40.14	211	47.85	230	52.15
Total	2400	1249	52.04	1151	47.96	558	48.48	593	51.52	484	42.05	667	57.95
Parity													

P1	516	210	40.7	306	59.3	180	58.82	486	159	105	34.31	201	65.7
P2	672	325	48.36	347	51.6	203	58.5	144	41.5	153	44.09	194	55.9
P3	453	248	54.75	205	45.3	74	36.1	131	63.9	92	44.88	113	55.1
P4	250	81	32.4	169	67.6	57	33.73	112	66.3	74	43.79	95	56.2
P5 Above	509	344	67.58	165	32.4	44	26.67	121	73.3	71	43.03	94	57
Total	2400	1249	52.04	1151	47.96	558	48.48	593	51.52	484	42.05	667	57.95

Of 1040 pregnant women, 943 (90.67%) were housewives and of them, 643 (68.2%) were aware of some maternity dangers, 256 (39.8%) about preterm pains. Of 1040 women, 94 (80.3%) out of 117 with one child were aware of some dangers, 54 (57.4%) preterm pains, 403 (87.4%) of 461 with many children talked of dangers, 209 (51.9%) preterm pains, 66 (16.4%) epigastric pain

and 51 (12.7%) vaginal bleeding. In most cases there was some overlap, but even postgraduate studied didn't talk about heavy vaginal bleeding, during pregnancy, epigastric pain, convulsions, hand or cord prolapse, intra uterine death of baby, rupture uterine, inversion, retained placenta, post-partum hemorrhage etc. (Table 3,4).

Table 4: Pregnant women's awareness of labour events.

Variables	Total	Awareness			
		YES	%	NO	%
AGE					
15 To 19	323	319	98.8	4	1.2
20 To 24	536	504	94	32	6
25 To 29	109	99	90.8	10	9.2
30 To 34	68	62	91.2	6	8.8
35 To 39	4	4	100	0	0
Education					
Illiterate	56	29	51.8	27	48.2
Primary	321	291	90.7	30	9.3
Secondary	358	306	85.5	52	14.5
Higher Secondary	196	195	99.5	1	0.5
Graduate	66	66	100	0	0
Post Graduate	43	43	100	0	0
Economic Status					
Upper	43	43	100	0	0
Upper Middle	51	50	98	1	2
Upper Lower	142	139	97.9	3	2.1
Lower Middle	186	179	96.2	7	3.8
Lower	618	588	95.1	30	4.9
Profession					
Housewife	943	901	95.5	42	4.5
Ownfarm Labour	53	29	54.7	24	45.3
Labourer	40	19	47.5	21	52.5
Otherwork	4	1	25	3	75
Parity					
P.1	117	91	77.8	26	22.2
P.2	103	101	98.1	2	1.9
P.3	155	149	96.1	6	3.9
P.4	204	166	81.4	38	18.6
P.5 Above	461	403	87.4	58	12.6
Total	1040	910	87.5	130	12.5

Table 4: Pregnant women’s awareness of labour events.

Variables Age	Total	Awareness Of Maternity Danger				If Yes Danger Problems											
		No	%	yes	%	Preterm Pains	%	Leaking	%	Vag-inal Bleed-ing	%	Lessfetal Move-ments	%	Head-ache	%	Epi-gastria Pain	%
15 To 19	323	218	67.5	105	32.5	16	15.2	51	48.6	2	1.9	1	1.0	20	19.0	15	14.3
20 To 24	536	120	22.4	416	77.6	78	18.8	66	15.9	106	25.5	122	29.3	33	7.9	11	2.6
25 To 29	109	13	11.9	96	88.1	17	17.7	47	49.0	21	21.9	6	6.3	5	5.2	0	0.0
30 To 34	68	42	61.8	26	38.2	1	3.8	19	73.1	0	0.0	0	0.0	6	23.1	0	0.0
35 To 39	4	0	0.0	4	100	0	0.0	1	25.0	2	50.0	0	0.0	1	25.0	0	0.0
Education																	
Illiterate	56	41	73.2	15	26.8	0	0.0	11	73.3	0	0.0	0	0.0	4	26.7	0	0.0
Primary	321	91	28.3	230	71.7	22	9.6	106	46.1	47	20.4	19	8.3	10	4.3	26	11.3
Secondary	358	161	45.0	197	55.0	16	8.1	35	17.8	22	11.2	57	28.9	67	34.0	0	0.0
Higher Sec-ondary	196	63	32.1	133	67.9	1	0.8	21	15.8	5	3.8	2	1.5	79	59.4	25	18.8
Graduate	66	30	45.5	36	54.5	31	86.1	0	0.0	0	0.0	0	0.0	5	13.9	0	0.0
Post Gradu-ate	43	7	16.3	36	83.7	21	58.3	5	13.9	0	0.0	0	0.0	10	27.8	0	0.0
Economic Status																	
Upper	43	2	4.7	41	95.3	31	75.6	6	14.6	0	0.0	0	0.0	4	9.8	0	0.0
Upper Middle	51	3	5.9	48	94.1	34	70.8	8	16.7	0	0.0	2	4.2	4	8.3	0	0.0
Upper Lower	142	29	20.4	113	79.6	41	36.3	0	0.0	57	50.4	4	3.5	10	8.8	1	0.9
Lower Middle	186	36	19.4	150	80.6	21	14.0	11	7.3	88	58.7	2	1.3	2	1.3	26	17.3
Lower	618	323	52.3	195	31.6	44	22.6	21	10.8	12	6.2	12	6.2	97	49.7	9	4.6
Profession																	
Housewife	943	300	31.8	643	68.2	256	39.8	106	16.5	114	17.7	33	5.1	57	8.9	77	12.0
Ownfarm Labour	53	49	92.5	4	7.5	3	75.0	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0
Labourer	40	0	0.0	40	100	22	55.0	6	15.0	1	2.5	8	20.0	3	7.5	0	0.0
Otherwork	4	4	100	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Parity																	
P.1	117	23	19.7	94	80.3	54	57.4	12	12.8	3	3.2	8	8.5	4	4.3	13	13.8
P.2	103	6	5.8	97	94.2	59	60.8	21	21.6	0	0.0	2	2.1	12	12.4	3	3.1
P.3	155	38	24.5	117	75.5	71	60.7	14	12.0	1	0.9	2	1.7	25	21.4	4	3.4
P.4	204	45	22.1	159	77.9	81	50.9	38	23.9	12	7.5	8	5.0	9	5.7	11	6.9
P.5 Above	461	58	12.6	403	87.4	209	51.9	33	8.2	51	12.7	21	5.2	23	5.7	66	16.4
Total	1040	170	16.3	870	83.7	474	54.5	118	13.6	67	7.7	41	4.7	73	8.4	97	11.1

Discussion

Maternity related dangers are the major health problems and cause of mortality among women in developing countries. Key dangers during labor, postbirth include, severe bleeding, prolonged labor, obstructed labour, convulsions, retained placenta, loss of consciousness, post-partum bleeding and fever in postpartum period too.

Recognizing maternity complications and action needed should significantly increase the capacity of women, their families, to take appropriate steps to ensure safe birth and to seek timely

skilled care to remain healthy. Félix et al. [4] in their study to identify the scores on the pregnant women’s knowledge related to alertness about labor, found correlation of the scores with the maternal age, number of children and the guidance they received during pregnancy. Parity was a better predictor than educational level about knowledge of severe vaginal bleeding as a key danger during pregnancy. Those pregnant women who did not receive any kind of guidance, had lower scores of the correct answers, which showed the importance of guiding the women during their prenatal consultation. Ijang et al [5] did a facility-based cross sectional study in North West, Cameroon

and reported that 46.1% were aware of birth preparedness and complications readiness. The practice of birth preparedness and complications readiness was unsatisfactory as only 18.8% were considered prepared. Amenu et al. [6] reported that significant proportion of respondents were not knowledgeable about dangers in Southwest Ethiopia and in their study, educational status, place of last delivery, and antenatal visits were found important to predict awareness of BPCR.

Also, Sahithi et al. [7] reported low knowledge of dangers during labour and delivery, and new born in Kamineni Academy of Medical Sciences and Research Center, India. Hailu et al. [8] reported that the knowledge level of pregnant women about maternity dangers was low in Southern Ethiopia and was affected by residential area and researchers advocated that the identified deficiencies in awareness should be addressed through maternal and child health services by designing appropriate strategies including provision of targeted information, education and communication. The same was found in the present study also. Women had low and scanty awareness. Of 2400 preconception women interviewed, only 801 (33.4%) talked about the labour events, around 60% did not talk of any. Of 2400 preconception women, 1015 (42.29%) were aware of some maternity dangers. Those who talked something also did not talk of real dangers and overall awareness was scanty. Of 1040 pregnant women, 910 (87.5%) were aware of labour events and 870 (83.7%) were aware of some maternity dangers. So memory seemed to play a big role. More of pregnant women who had met health workers in recent past, could talk of events and dangers, 474 (54.5%) said preterm pains, 118 (13.5%) leaking, 97 (11.1%) epigastric pain, 73 (8.4%) headache, 67 (7.7%) vaginal bleeding and 41 (4.7%) decrease in fetal movements, with some overlap. But they also did not talk of real maternity dangers, like heavy vaginal bleeding, convulsions, severe epigastric pain rupture uterus, retained placenta etc.

Mwilike et al. [2] reported that women in Urban Tanzania took appropriate action about seeking health care after recognizing dangers during pregnancy, however, majority had low knowledge of maternity dangers. In the study by Hibstu [9] it was revealed that maternal and paternal education, maternal age, paternal occupation, place of residence and time taken to reach health facility on foot were the main factors associated with knowledge of maternity dangers in women of Southern Ethiopia. Gebrehiwot et al. [10] suggested that health extension workers should strengthen their awareness creation activities by health education and community mobilization. Nurgi et al. [11] reported that the majority of their participants in Debre Berhan, Ethiopia who had knowledge of dangers had good practice, but overall participants' knowledge and attitude still needed intervention to maximize their knowledge and needed to work with positive attitude.

Nithya et al. [12] suggested, lack of exposure to formal awareness, lack of health counseling as modifiable risk factors to improve knowledge about maternity dangers. Hibstu et al. [9] as well as Hailu et al. [13] reported that educational status of the mother, place of delivery were independently associated with knowledge of women about maternity dangers in Southern Ethiopia. Provision of information, education and communication targeting women, family and the general

community on maternity dangers was recommended. Raising awareness of women about the maternity dangers is the first essential step in accepting appropriate and timely referral. In the present study even post graduate studied did not talk about real maternity dangers. Mellon et al. [14] did a study in California USA to assess the knowledge of pregnant women and male partners about several health risks posed by pregnancy to identify potential gaps in reproductive health literacy and reported that pregnant women and male partners had significant knowledge deficiencies concerning common and serious health hazards associated with pregnancy.

Perreira et al. [15] in their study evaluated the effectiveness of a set of information, education, and communication strategies designed to increase the awareness of maternity dangers among pregnant women of 4 regions of Southwestern Guatemala and reported that among women using health clinics, the likelihood of having heard of maternity dangers nearly tripled, when the clinic interventions were fully implemented. Those who had heard radio messages or participated in women's groups were, respectively, 3 times and 5 times more likely to have heard of maternity dangers. A study by Okour et al. [16] to assess the level and determinants of awareness of the maternity dangers among pregnant Jordanian women revealed that awareness of danger signs was low and a need existed to provide prenatal care that included sufficient information about maternity dangers. Researchers opined that additional studies were warranted to address the knowledge gap and to plan interventions for improving health literacy. It was recommended to have structured mandatory health literacy sessions addressing the maternity dangers.

Doctor et al. [17] did a study in Northern Nigeria to better understand the pathways through which the socio-demographic environment affected awareness of maternity dangers, preparations for delivery, and skilled birth attendance and found that less than one-third pregnant women knew three or more danger signs of pregnancy or labor and delivery. Higher socioeconomic status was associated with knowledge of maternity dangers, but not with knowledge of life-threatening, critical dangers as was seen in the present study also. Of 1040 women, 94 (80.3%) out of 117 with one child were aware of some dangers, 54 (57.4%) preterm pains, 403 (87.4%) of 461 with many children talked of dangers, 209 (51.9%) preterm pains, 66 (16.4%) epigastric pain and 51 (12.7%) vaginal bleeding.

Sahithi et al. [7] did a study at KAMSRC, India to assess the awareness of maternity dangers among the women attending the outpatients and reported 73.5% of the respondents knew at least one danger sign during pregnancy, 67.5% respondents knew at least one maternity danger. Shamanewadi et al. [18] did a study in Southern India to assess the awareness of maternity dangers among pregnant women attending antenatal clinics at primary health centers and reported women knew only 3 danger signs, vaginal bleeding, loss of consciousness and convulsions. Every pregnant woman faces the risk of sudden, unpredictable complications that could end in death or injury to her or her infant. Hence, it is necessary to employ strategies to overcome such problems as they arise. Felix et al. [3] did a study in India aimed to assess level of awareness about danger signs of pregnancy among antenatal women and to assess the

factors associated with it and reported that level of awareness about danger signs among pregnant women was average. Researchers recommended interventions provision of health education, empowering women and improving the quality of health services.

Conclusion

Little more pregnant women than preconception women had awareness of undesirable maternity events and not really maternity dangers, but awareness was scatchy. Only one third rural tribal preconception women had awareness of undesirable events not really maternity dangers that too scatchy. Hardly anyone talked of real maternity dangers. A lot is needed to create awareness of maternity dangers which are preventable and treatable but less kill many rural women during pregnancy, birth and post birth.

Conflict of interest: None.

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