



IDENTIFICATION OF SIGN AND SYMPTOMS OF HIGH RISK PREGNANCY AMONG PREGNANT WOMEN BY HEALTH CARE WORKERS (ANMS) IN UDAIPUR, RAJASTHAN, A STATISTICAL STUDY.

Statistics

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ABSTRACT

Background : High Risk Pregnancy (HRP) is a state where mother or embryonic fetus or both are at greater than before risk of complications through pregnancy or after pregnancy and birth. There are no studies so far which have characterized congenital anomalies (CAs) in HRP women with different previous obstetric histories. Till date several studies in developed countries have been performed to assess the determinants for HRP but the risk factors varied with respect to different ethnic groups. **Aim:** The objective of this study is to assess the skill of health care provider to identify the High Risk pregnancy (HRP) among pregnant attending Primary Health centers & Sub Centers in urban, rural and tribal area of Udaipur **Results:** Majority of subjects (health professional) displayed adequate skill for weight 35(87.5%) and height 25 (62.5%), Blood pressure and urine examination for albumin and sugar were adequately measured by 18 (45%) subjects at PHC's, While in Sub centres Majority of subjects having adequate skill for weight measurement 72(90%) and height 46(57.5%) measurement. Blood pressure and urine examination for albumin and sugar were adequately measured by 30 (37.5%) and 34(42.5%) **Conclusion:** Sensitization of community towards HRP and its maternal and fetal complications in order to improve utilization of services was expressed as felt need by the ANMs

KEYWORDS

High Risk Pregnancy, HRP, ANM

INTRODUCTION:

High Risk Pregnancy (HRP) is a state where mother or embryonic fetus or both are at greater than before risk of complications through pregnancy or after pregnancy and birth¹. There are no studies so far which have characterized congenital anomalies (CAs) in HRP women with different previous obstetric histories. Till date several studies in developed countries have been performed to assess the determinants for HRP but the risk factors varied with respect to different ethnic groups²⁻³

An approximate 30,000 mothers die each year due to avoidable causes associated with pregnancy and childbirth in India⁴ Today, about 800,000 children under the age of five die of vaccine-preventable diseases, neonatal infections, neonatal asphyxia, and malnutrition. In 2017, the Indian Medical Research Council (ICMR), the Indian Public Health Foundation (PHFI) and the National Institute of Nutrition (NIN) found that malnutrition was the leading risk factor for deaths under the age of 5 and accounted for 68% nationwide. An important predictor of low birth weight and malnutrition in infants is maternal anemia (and associated maternal malnutrition) that occurs in more than 50% of women between the ages of 15 and 49⁵ Rajasthan, India's largest state, is a state with an emphasis on reproduction and child health (RCH). The population is 80 million⁶, 75% of whom live in rural areas⁷ and have maternal and child mortality rates of 199 (India MMR: 130) and 41 (India IMR: 34), respectively^{8,9}. Each year, an estimated 4.2 lakh pregnant women in Rajasthan are at increased risk of childbirth complications if they have three or more pregnancies by maturity¹⁰.

neonatal, and child mortality: IFA (Iron Folic Acid) supplementation for pregnant women, regular ANC checkups, institutional deliveries, guidance on newborn care, immunizations, and treatment of flushed illness¹². while data for these interference is collected at the point of care, the public health system face the following problems like misplaced and incompatible data, deprived harmonization between health care workers at different stage of care, lack of responsibility, interruption in reporting data for action, unrecorded populations, and a unlinked variety of care.¹³⁻¹⁴

According to Taddeus and Maine, the mother faces three major interruption in referrals. It is a delay in seeking care, a delay in appearance at a healthcare institution, and a delay in providing sufficient care¹⁵. The main cause of These delays are rooted in socio-economic, cultural and environmental features (patient reason) and quality of care (health care system reason). Healthcare system reason are considered to be more important than patient reason as they can affect all three lag phases¹⁵. A 2019 study by Harahap et al. Challenges identified by both patient & healthcare system reason. Patient barriers include the environment, referral knowledge, poverty, maternal health, and culture. Barriers to the healthcare system include transportation, communications, quality of care, referral documents, standard referral and monitoring procedures, and network communications¹⁶.

AIMS AND OBJECTIVE:

The objective of this study is to assess the skill of health care provider to identify the High Risk pregnancy (HRP) among pregnant attending Primary Health centers & Sub Centers in rural, tribal and urban area of Udaipur.

MATERIAL & METHODS

A health facility based cross sectional study was conducted in urban, rural and tribal Primary Health Centers & Sub Centers of Urban, Rural, and Tribal block of Udaipur district. Study was conducted from June 2019 to December 2019. Udaipur District divided into 12 blocks, six tribal, five rural and one urban, Selection of primary health center by Simple Random sampling in Urban Rural & Tribal block and then select two sub centers each PHC (rural and tribal) and two Anganwadi Centers from each urban PHC were selected randomly since in Urban block there is no sub centers. So total of 40 PHCs, 58 SCs and 22 Anganwadi centre's of urban PHC were selected for data collection. A checklist was prepared for health professional to assess the Skills to identifying signs and symptoms of HRP in Antenatal period. Data was coded and entered on Microsoft excel sheet and analysis done on SPSS version 17.

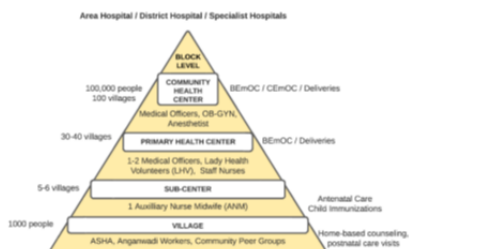


Fig. 1 In India, the public health system begins at the village level, where the ASHA (accredited social health activist) spreads health awareness for multiple health programs, identifies and counsels eligible couples for family planning, guides pregnant women to referral facilities, and identifies postnatal infant danger signs. At the sub-center, the ANM (auxiliary nurse midwife) conducts antenatal care and child checkups, provides nutritional supplements, and performs immunizations. Here, women and children are identified as high risk and referred for higher level care at the primary health center, where the Medical Officer (MO) treats them and conducts deliveries

India's public health system shown in Fig. 1¹¹ provides a large set of cost effective, successful solutions across the antenatal and post natal care range that have been executed to prevent preventable maternal,

RESULT:**Table.1 Distribution of PHC's**

Type of PHC'S	No of PHC'S	Percentage
Urban	11	27.5
Rural	18	45
Tribal	11	27.5
Total	40	100

Total 40 PHC's were selected in seven blocks out of twelve block of Udaipur, in which 11(27.5%) PHC's were selected in Urban and Tribal block, while 45% of PHC's were selected in rural block.

Table.2: Skills of subjects (health professional) in identifying signs and symptoms of HRP in Antenatal period at Pubic Health centres Sub Centres.

Skill	PHC(n=40)	Sub Centres (80)
Weight measurement	35(8.5)	72(90)
Hight measurement	25(62.5)	46(57.5)
Blood Pressure measurement	18(45)	30(37.5)
Hemoglobin estimation	15(3.5)	28(35)
Urine examination for albumin and sugar	18(45)	34(42.5)
Abdominal examination	11(2.5)	9(11.25)

Majority of subjects (health professional) displayed adequate skill for weight 35(87.5%) and height 25 (62.5%) measurement. Blood pressure and urine examination for albumin and sugar were adequately measured by 18 (45%) subjects. Only One third, 15 (37.5%) could estimate hemoglobin adequately. Abdominal examination was adequately done by only 11 (27.5%) subjects.

While in Sub centres Majority of subjects having adequate skill for weight measurement 72(90%) and height 46(57.5%) measurement. Blood pressure and urine examination for albumin and sugar were adequately measured by 30 (37.5%) and 34(42.5%) subjects respectively. Only 28 (35%) could estimate hemoglobin adequately. Abdominal examination was adequately done by only 9(11.25%) subjects.

Table.3: Level of skills of ANMs in identifying signs and symptoms of HRP in Antenatal period at PHC's

Level	No of subjects			
	Urban (n=11)	Rural (n=18)	Tribal (n=11)	Total(n=40)
Good*	2(18.18)	3(16.67)	1(9.09)	7(17.5)
Average**	7(63.63)	10(55.56)	7(63.63)	23(57.5)
Below average***	2(18.18)	5(27.78)	3(27.27)	10(25)
Total	11(100)	18(100)	11(100)	40(100)

Figures in parenthesis are percentage
*score 5-6, **score 3-4, *** score <3,
 $\chi^2=0.754$, df=4, P Value= 0.944

Majority, 23(57.5%) of subjects displayed only average skills in identifying sign and symptoms of high risk pregnancy (HRP). Skills displayed by 10(25 %) subjects were below average. Only 7(17.5%) displayed good skills, more in urban 2(18.18%) than rural 3(16.67%) and tribal 1(9.09%). There was no significant association in levels of skills among rural urban, and tribal health professional (p value>0.05).

Table 4. Level of skills of ANMs in identifying signs and symptoms of HRP in Antenatal period at SC (Sub Centres).

Level	No. of subjects			
	Urban(n=22)	Rural(n=36)	Tribal(n=22)	Total(n=80)
Good*	5(22.7)	4(11.1)	2(9.1)	11(13.8)
Average**	13(59.1)	28(77.8)	18(81.8)	59(73.8)
Below average***	4(18.2)	4(11.1)	2(9.1)	10(12.5)
Total	22(100)	36(100)	22(100)	80(100)

Figures in parenthesis are percentage
*score 5-6, **score 3-4, *** score <3,
 $\chi^2=1.611$, df=4, P Value= 0.807

Majority, 59(73.8%) of subjects having average skills in identifying sign and symptoms of high risk pregnancy (HRP). Skills displayed by 10 (12.5%) subjects having skill below average.

Only 11(13.8) subjects having good skills, more in urban 5(22.7%) than rural 4(11.1%) and tribal 2(9.1%). There is no association between level of skills of ANMs in identifying signs and symptoms of HRP in Antenatal period at SC (Sub Centres).

The mean scores of skills to identify High Risk pregnancy at PHC's and SC's were 1.67 ± 1.49 & 3.52 ± 1.02 the mean difference between skills of health care workers at PHC's and SC's were statistically significant.(P Value 0.004)

CONCLUSION

Majority of ANM had only average skills for identification and tracking of a HRP in antenatal period. The level of skills was none or less same in all ANMs working in urban, rural and tribal centres.

Sensitization of community towards HRP and its maternal and fetal complications in order to improve utilization of services was expressed as felt need by the ANMs. In this context there is a need for capacity building of the ANMs through recurrent refreshment trainings.

RECOMMENDATIONS

Repeated hands-on turn-around training in qualified laboratories / development workshops is regularly organized for all ANMs and is an important birth related to early detection and tracking of prenatal HRP. Pre-care and skill abilities need to be improved. Ensuring quality prenatal care for beneficiaries. Regular supervision and monitoring to ensure quality of early identification, tracking and referral of the HRP ANC's. The supervision must be supportive.

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