

Awareness And Knowledge On National Rural Health Mission, Patient's Rights And Safety Among The Patients And Healthcare Professionals In A Rural South Indian Region

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Abstract

Purpose: A collection of principles that govern how patients and healthcare providers interact are known as a patient's rights. This study aimed to learn more about the awareness on National Rural Health Mission (NRHM) and patients' rights among patients and on patient safety among healthcare professionals (HCPs).

Method: From January 2021 to December 2021, a prospective questionnaire-based cross sectional study was conducted among patients and HCPs from rural healthcare facilities in a south Indian area. Patients hospitalised to rural hospitals were interviewed to assess their knowledge of NRHM and patient rights, as well as HCPs' perceptions of patient safety.

Results: A total 100 patients and 205 HCPs were included in this study. Age, gender, marital status, type of family, education, occupation, socioeconomic level, and information source all had an impact on their NRHM awareness and patient rights, as well as their view of patient safety.

Conclusion: The study was crucial in determining that majority of respondents were aware of patient rights, more programmes and camps should be held to educate rural populations about NRHM and patient rights. In order to provide better patient care, HCPs in rural areas should focus on implementing their vision on patient safety.

Keywords: National rural health mission; doctor-patient communication, healthcare, patient's rights, public health

INTRODUCTION

Background Since the United Nations established the Human Rights Act in 1948, patient rights legislation has been passed all over the world. The Sydney Declaration on organ transplants from 1968, the Helsinki Declaration on research subjects from 1964, and the Alma-Ata Declaration on Basic Health Services from 1978 are all examples. The primary motivation for the increased legislation is to protect patients' rights. A component of healthcare quality-improvement efforts[Mastaneh Z et al., 2013]. Patients benefit because they can spend less time in the hospital and make better use of healthcare providers, thus enhancing their quality of life. Patients' fundamental and important rights include the right to privacy, the right to be informed, the ability to make decisions, the right to informed consent, and the right to compensation in the event of a grievance[Fernandes AB et al., 2014]. The Universal Declaration of Human Rights (UDHR) is based on four kinds of physician-patient partnerships (1948). Paternalistic, instructional, interpretative, and deliberative are all characteristics of the model[Habib FM et al., 2013]. The World Health Organization, whose aim is to guarantee

"health for all," and the Universal Declaration of Human Rights (1948), both acknowledge "the inherent dignity" and "the equal and unalienable rights of all members of the human family," and patient rights are built on this basis. To put it another way, this understanding of an individual's inherent rights changed what physicians and the state owe to patients as human beings[Mohammed ES et al., 2018]. The state and society have always fought to protect the rights of patients. Many countries have created and are currently implementing measures to protect patient rights. Economic development has had an impact on the health sector, particularly the introduction and mainstreaming of digitization. The purpose of healthcare information technology should be to make medical services more accessible [BelozeroVA OA et al., 2020]. Trans people are discriminated against all across the world. Human rights violations include social and workplace discrimination, criminalization, transphobic violence, and murder. This twentieth-century medical paradigm partially replaces and coexists with past views of gender transformation as a sin or crime, and is challenged by a more current conception of

gender expression and identity as a human right [Suess Schwend A., 2020].

The impact of community participation and engagement on trans individuals is currently being studied. "It's totally correct," the narrator says. Public opinion The impact of community connection on trans people People who are trans have a gender identification that differs from societal expectations based on the sex assigned at birth (e.g. trans men and women, gender fluid, non-binary). The majority of previous transgender research has focused on transition and HIV care. According to research, these people are more prone to suffer from mental health issues. These consequences can be explained using the minority stress hypothesis, which states how marginalisation stress can contribute to negative health outcomes in a cisnormative (cisgender prioritising and normalisation, or having one's gender conform to their sex assigned at birth) culture [Bowling J et al., 2020]. The patient's understanding of their sickness and rights serves as a barometer for efficient doctor-patient communication [Mastaneh Z et al., 2013]. Patients who are better informed about their diseases, treatments, and care should be encouraged to actively participate in their own care [Marciarille AM., 2011]. The Medical Council of India established a Code of Ethics Regulations (COER) in 2002 that emphasises physicians' duties and responsibilities, as well as some patient rights [Aggarwal R et al., 2018]. In India, public system is chronically underfunded characterized by extremely high volumes of patients and a dearth of educated health workers. While some studies on patient safety have been conducted regarding providers' attitudes, beliefs and behaviours about patient safety in low and middle income countries, most have been limited to industrialized world. Very little evidence exists on the perceptions of HCPs regarding interventions to improve patient safety. Thus our study aimed to assess the utilization of NRHM in rural part of district by assessing the awareness on NRHM, knowledge of patient's rights among the patients and safety perception among the HCPs in a south Indian state of Karnataka.

Materials and methods

Study design, Area and Period

In the rural areas of the south Indian state of Karnataka, a prospective, cross-sectional community based study was undertaken for a year, from January to December 2021. In seven Taluks of the district, health facilities from the village level up to the district level, including sub-centres (SC),

primary health centres (PHC), community health centres (CHC), and district hospital (DH).

Study criteria

Our study included HCPs and patients of The National Rural Health Mission (NRHM) is a government-funded initiative that aims to improve), to assess the utilization of NRHM and patients' rights. Information was collected from the family's head of household or any other responsible member. People who lived in the rural sections of the chosen district were excluded from the study. Patients getting health care from sources other than NRHM and those who refused to participate were excluded.

Sample size determination

The convenience random selection technique was used to pick a sample size of hospitalised patients (10% of total admitted patients), i.e. 50 from the general ward and 50 from the private ward. HCPs in the study were hospital employees who worked in a variety of clinical settings and hospital units for the sake of patient safety.

Data collection procedure and tool

Direct interview of the patients along with patient case notes from medication/treatment charts, laboratory data reports and other relevant source were used. Self-structured questionnaire on awareness of patient rights in English language was designed to include of There are 40 questions divided into three sections: demographics, patient rights awareness, and patient rights practise. The content and language of this questionnaire were approved by four experts. A 3-scale rating (agree, not sure, disagree) questionnaire was used to assess awareness and practise. 'Agree' was regarded aware/practiced, however 'not sure or disagree' was not. Patient data collection form was used to obtain demographic details from the included participants. A validated evaluation questionnaire with 09 patient safety culture aspects was used to examine the respondent's perspective of patient safety in their patient care unit (8 dimensions) as well as their general opinion of patient safety in the hospital (2 dimensions). Each category had three to five items on a five-point likert scale of agreement (strongly disagree to strongly agree) or frequency (strongly disagree to strongly agree) (never to always).

A self-prepared questionnaire on awareness of NRHM was also used consisting of 38 items regarding utilization and knowledge of NRHM

services. It was assessed in an Yes or No format. Families would be chosen at random, and one responsible person capable of making family decisions from each family that met the inclusion criteria would be chosen at random. Interview was taken for those who were unable to read for an average time of 25-30 minutes. During the process of data collection, fellow colleagues working in the selected districts and village leaders helped in meeting with authorities to identify the location of villages.

Data analysing

Microsoft excel Statistical Package for Social Sciences version 16 was used to analyse the data. The frequency, average, and standard deviations were employed as descriptive statistics. Analytical statistics were used to compare variables. Awareness of NRHM services, understanding of patient rights, and perceptions of patient safety were described using descriptive statistics such as frequency and percentage. Inferential statistics such as chi-square test was used to see the association between selected demographic variables and findings of awareness on NRHM services, knowledge on patient's rights and perception on patient safety. A p-value of <0.05 was considered statistically significant.

Ethical consideration

Ethical approval was obtained from the Institutional Ethics Committee of the concerned institutions (AIMS/IEC/1876A/2020). The NRHM department, the CHC medical officer, and the PHC village sarpanch were all given formal authorization after describing the research study's purpose. Before the study began, the participants gave their informed consent.

RESULTS AND DISCUSSION

Participants included for NRHM awareness, rights and patients' rights

A total of 100 patients were included in the study from the selected geographical location for the evaluation of NRHM awareness and rights. Among the included patients, 29%, 56% and 15% were aged ≤18 years, 18-30 years and 31-60 years, respectively with a mean age of 23.45±9.25 years. There was a female dominance with a 79% of total participants. The majority of patients had normal BMI (74%) and only 1 patient had obesity. Among the patients, 18 were smokers and 33 used to do exercise. 96 patients were having a mixed diet and all participants (100%) were belongs to Hindu

religion. Among the participants, 72% were unmarried and 97% were had joint family. Among the patients included, 44% had high school education, and 29% patients had graduates or above education. In the included participants, 48% had elementary occupation and 38% had no work. Majority of the patients (73%) had an income of above 100k and 46% upper socioeconomic status. There was various information resources, 40% used internet and social media, 25% obtained the information from Gram panchayat and 18% had the information from Cinema and newspaper. Among the total of participants, 81% had adequate awareness and 19% had inadequate awareness among the participants. The demographic details of the included patients is provided in Table 1.

Table 1: Demographic details of Participants included for NRHM awareness, patient rights and patient safety

Variables	Response category	NRHM awareness Frequency (n=100) (%)	Patient safety Frequency (n=205) (%)
Age	≤18 years	29 (29)	-
	19-30 years	56 (56)	191 (93.2)
	31-60 years	15 (15)	14 (6.8)
Gender	Male	21 (21)	57 (27.8)
	Female	79 (79)	148 (72.2)
BMI	Underweight	9 (9)	41 (20)
	Normal	74 (74)	127 (62)
	Overweight	16 (16)	33 (16)
	Obese	1 (1)	4 (2)
Smoking	Yes	18 (18)	3 (1.5)
	No	82 (82)	202 (98.5)
Exercise	Yes	33 (33)	113 (55.1)
	No	67 (67)	92 (44.9)
Diet	Veg	4 (4)	72 (35.1)
	Mixed	96 (96)	133 (64.9)
Religion	Hindu	100 (100)	172 (83.9)
	Christian	-	12 (5.9)
	Muslim	-	21 (10.2)
Marital status	Married	28 (28)	172 (83.9)
	Unmarried	72 (72)	33 (16.1)
Types of family	Nuclear	3 (3)	121 (59)
	Joint	97 (97)	84 (41)
Place of residence	Urban	-	80 (39)
	Rural	-	125 (61)
Education	High school	44 (44)	2 (1)
	Intermediate	27 (27)	105 (51.2)
	Graduate and above	29 (29)	98 (47.8)
Occupation	Office work	9 (9)	56 (27.3)
	Healthcare professionals	2 (2)	126 (61.5)
	Elementary Occupation	48 (48)	23 (11.2)
	Agriculture	3 (3)	-
	Unemployed	38 (38)	-
Income	<10k	7 (7)	30 (14.6)
	10-50k	5 (5)	84 (41)
	50-100k	15 (15)	39 (19)
	Above 100k	73 (73)	52 (25.4)
Socioeconomic status	Upper	46 (46)	14 (6.8)
	Upper middle	22 (22)	85 (41.5)
	Lower middle	12 (12)	45 (22)
	Upper lower	6 (6)	34 (16)
	Lower	14 (14)	27 (13.2)
Information resources	Radio & Television	12 (12)	11 (5.4)
	Gram panchayat	25 (25)	2 (1)
	Internet & Social media	40 (40)	104 (50.7)
	Friends	5 (5)	63 (30.7)
	Cinema & Newspaper	18 (18)	25 (12.2)
Work area	Pharmacy	-	126 (61.5)
	Emergency & Critical care	-	17 (8.3)
	Medicine	-	9 (4.4)
	Surgery/Ortho	-	9 (4.4)
	Paediatrics	-	26 (12.7)
	Gynaecology	-	18 (8.8)
Awareness	Inadequate awareness	19 (19)	NA
	Adequate awareness	81 (81)	-

Demographic details of Participants included in perception of HCPs on patient safety

A total of 205 HCPs were included in the study from the selected geographical location for the

Factors affecting the awareness on NRHM

A significant association were observed between the age/age category on NRHM awareness with respect to the visit of ASHA workers at home (0.032), registration in Rashtriya Beema Suraksha yojana (0.047), availability of ambulance (0.002), and availability of Child development clinic in PHCs (0.001). However, this factor was not significantly associated with their overall awareness on NRHM. Gender was significant associated with the NRHM awareness on the availability of ASHA worker at their village (0.049), and satisfaction with the health facilities and services (0.011). However, this factor was not significantly associated with their overall awareness on NRHM. This might be due to the availability of women at home. Majority of female are housewives in Indian setting and they will be well aware on what is happening at home. A study by Fathima FN et al., indicated that majority of ASHA workers were belongs to the age group of 30-39 years with a mean age of 30.3 ± 5.0 years. Moreover, household visit were the most effective intervention they made, followed by maternal and child health Counselling women on all aspect of pregnancy [Fathima FN et al., 2015]. This clearly indicates that, women at home will be well worse with the visit of ASHA workers at home as well as maternal child development in PHCs. All the mission should learn few important insights such as the points to improve awareness, issuing quick enrolment process with appropriate details, attaining universal enrolment, ongoing and rapid renewal, and ensuring proper utilization by proactively educating the vulnerable sections [Takur H., 2016].

Marital status was significant factor which is associated to the NRHM awareness with respect to the objective of the mission (0.005), and implementation of NRHM (0.03). However, marital status was not associated with any other aspects of awareness on NRHM. Education status of the patients were significantly associated with the objective of the mission (0.023), availability of ASHA worker at their village (0.014), registration in Rashtriya Beema Suraksha yojana (0.018), and availability of ambulance (0.049). However, it was not significantly associated to the overall awareness on NRHM.

The majority of the participants were well aware on the objective and implementation of NRHM which was similar to the findings of the Ray SK where they mentioned that almost all of them are aware of the existence of NRHM though they were

not utilizing it properly [Ray SK., 2014]. However, deprived organisational association with other health institutions is a main problem of NRHM. Harmonisation between different ministries and amalgamation between various interdisciplinary oral programmes remains the biggest challenge for NRHM [Pal B., 2020].

Occupation was significantly associated to the knowledge on free provision of antenatal check-ups and Immunizations in primary health centres (0.03), and receive of free NRHM services to their family member (0.009). However, it was not significantly associated to the overall awareness and other aspects on NRHM. Socioeconomic status of the patients were significantly associated to the knowledge on the provision of transport charge by PHC when patient in need (0.048) and PHCs are responsible to check the water quality at villages (0.016). This might be due to the effectiveness of ASHA works or awareness campaign among the rural population by the healthcare workers.

There were many information resources on NRHM and this sources were significantly influenced the knowledge of patients on mission of NRHM (0.037), registration in Rashtriya Beema Suraksha yojana (0.005), and formation of Rogi Kalyan Samiti at the village (0.03). The factors affecting the knowledge on NRHM awareness is provided in Table 2.

Table 3: Factors affecting the Awareness on NRHM

Factors affecting the knowledge on the Patient rights

A significant association of age with respect to the awareness on patient rights (0.015), knowledge on ASHA worker (0.000), free provision of antenatal check-ups and Immunizations in primary health centres (0.018), right towards to their privacy (0.038), to know his doctor's qualification (0.010), Sub Centre Provision of 24 hours facility for complicated cases of pregnancy and delivery (0.004) availability of free iron folic acid tablet and Tetanus toxoid injection during Antenatal check-up (0.007), provision of family planning services at PHC (0.001), right to receive feedback on treatment process that should be provided by doctor (0.006), availability of doctors and nurses at PHCs throughout the day (0.031), and awareness on the hospital rules and policies applicable (0.011). Marital status was significantly associated to the knowledge or awareness of patients on the

responsibility of Grampanchayat to make the sanitary latrines & women sanitary complex (0.029). A study in a southern state in India comprised numerous other rights that were not suggested by NABH [Yaghobian M et al., 2014]. These rights were not displayed in the current hospital setting.

Marital status and type of family were significantly associated with the awareness on timings of doctor’s visit at PHCs or sub centres (0.041 and 0.049). Education of the patients were significantly associated to the patient right to know his doctor’s qualification (0.001), display of patients’ rights board (0.002), ASHA worker at village (0.023), eligible compensation with regard to health conditions (0.041), 24 hours facility for complicated cases of pregnancy and delivery at sub centre (0.013), availability of free iron folic acid tablet and Tetanus toxoid injection during Antenatal check-up (0.025), and 24 hours facility for normal delivery at the PHC (0.024), provision of ORS at Subcentre & Aanganwadi (0.046), and availability of family planning services at sub centre (0.023), responsibility of Grampanchayat to make the sanitary latrines & women sanitary complex (0.012), right to access his/her medical records and to receive a copy upon request (0.014), right to get a second opinion from any specialist (0.014), right to get your case papers upon request (0.013), and availability of doctors and nurses at PHCs throughout the day (0.018). Occupation was significantly associated to the awareness on Dignity toward the health care providers (0.003), untied fund to Village Health Sanitation Committee (0.001), aware about Discharge

summary (0.034), right to get your case papers upon request (0.022), and right to be informed in advance and to make your own choice of hospital while discharging or moved to other hospital (0.042). Whereas, socioeconomic status were significantly associated to the knowledge on the facility for normal delivery is available at the PHC for 24 hours (0.010).

Internet and social media observed to be the major information resource on NRHM and patient right among the participants, followed by the friends. However, the variation in information resources were not significantly associated to their overall awareness on NRHM and the various aspects of patient rights. A study performed in coastal south India observed that doctors were the common resource of information followed by nurses, posters, internet and television and radio. Moreover, they recommend a common code or policy across the country to bring about harmony in all hospitals on patient rights [Yaghobian M et al., 2014]. Patients have all the rights to know the complete information regarding the expected cost for the management of their disease which should be prior informed by the healthcare providers [Agrawal U et al., 2017]. Additionally, there is a need of committees, policies and patient advocacy groups or firms which ensure the patient rights in India which in turn leads to a better transparent and credible healthcare system [NABH, 2011]. A detailed analysis on the factors affecting the knowledge on patient rights is summarized in Table 3.

Table3: Factors affecting the knowledge on Patient’s rights on treatment

Variable	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40
Age	0.01	0.56	0.34	0.03	0.55	0.01	0.51	0.71	0.94	0.27	0.12	0.00	0.13	0.36	0.01	0.00	0.00	0.08	0.05	0.05	0.00	0.50	0.07	0.48	0.04	0.45	0.45	0.11	0.77	0.00	0.33	0.16	0.05	0.61	0.15	0.18	0.03	0.96	0.84	0.01
Gender	0.48	0.49	0.65	0.64	0.88	0.19	0.16	0.35	0.87	0.46	0.64	0.70	0.36	0.25	0.80	0.36	0.76	0.86	0.31	0.73	0.97	0.75	0.11	0.62	0.83	0.47	0.38	0.36	0.69	0.42	0.39	0.46	0.58	0.43	0.25	0.20	0.49	0.97	0.53	0.42
BMI	0.00	0.45	0.33	0.03	0.79	0.04	0.50	0.04	0.00	0.60	0.33	0.01	0.00	0.15	0.68	0.01	0.84	0.00	0.29	0.79	0.20	0.31	0.43	0.08	0.80	0.84	0.15	0.29	0.00	0.47	0.23	0.04	0.53	0.26	0.00	0.17	0.41	0.95	0.00	0.07
Smokin	0.44	0.39	0.33	0.08	0.25	0.00	0.56	0.12	0.98	0.02	0.02	0.02	0.45	0.59	0.44	0.35	0.20	0.27	0.96	0.28	0.94	0.85	0.09	0.51	0.60	0.64	0.25	0.56	0.24	0.24	0.87	0.46	0.18	0.39	0.58	0.07	0.13	0.96	0.84	0.68
Exercise	0.42	0.57	0.31	0.72	0.96	0.43	0.65	0.73	0.48	0.69	0.00	0.22	0.67	0.63	0.60	0.12	0.44	0.96	0.25	0.57	0.49	0.57	0.08	0.81	0.55	0.43	0.26	0.20	0.12	0.08	0.59	0.01	0.14	0.54	0.73	0.05	0.05	0.12	0.32	0.83
Diet	0.00	0.52	0.15	0.00	0.18	0.51	0.46	0.52	0.46	0.37	0.57	0.69	0.26	0.59	0.05	0.31	0.10	0.53	0.43	0.72	0.57	0.70	0.32	0.82	0.10	0.75	0.10	0.85	0.81	0.58	0.15	0.51	0.70	0.70	0.86	0.53	0.03	0.91	0.15	0.31
Marital	0.19	0.57	0.29	0.44	0.70	0.15	0.77	0.63	0.97	0.33	0.63	0.12	0.96	0.43	0.65	0.62	0.54	0.68	0.13	0.32	0.38	0.34	0.02	0.04	0.52	0.20	0.47	0.25	0.65	0.74	0.27	0.49	0.82	0.26	0.18	0.43	0.13	0.56	0.07	0.63
Type of family	0.53	0.14	0.22	0.58	0.69	0.84	0.52	0.34	0.56	0.45	0.66	0.76	0.64	0.67	0.69	0.74	0.74	0.65	0.46	0.28	0.56	0.48	0.13	0.04	0.74	0.35	0.28	0.83	0.06	0.64	0.82	0.69	0.21	0.33	0.10	0.70	0.76	0.89	0.25	0.37
Educati	0.09	0.74	0.06	0.27	0.50	0.00	0.07	0.26	0.63	0.00	0.23	0.02	0.16	0.04	0.22	0.01	0.02	0.02	0.37	0.04	0.02	0.76	0.01	0.12	0.16	0.84	0.21	0.07	0.47	0.14	0.66	0.01	0.01	0.48	0.46	0.01	0.01	0.07	0.91	0.24
Occupat	0.47	0.49	0.59	0.60	0.39	0.65	0.82	0.86	0.30	0.12	0.00	0.17	0.90	0.30	0.56	0.69	0.05	0.84	0.54	0.06	0.35	0.00	0.30	0.72	0.47	0.53	0.00	0.42	0.03	0.09	1	0.62	0.77	0.76	0.31	0.02	0.83	0.04	0.19	0.96
Income	0.39	0.00	0.43	0.34	0.60	0.85	0.36	0.86	0.93	0.69	0.36	0.05	0.95	0.46	0.28	0.68	0.25	0.56	0.85	0.61	0.47	0.90	0.77	0.86	0.74	0.39	0.56	0.87	0.33	0.95	0.41	0.33	0.31	0.97	0.38	0.40	0.52	0.25	0.69	0.95
Socioec	0.48	0.87	0.14	0.15	0.17	0.06	0.07	0.63	0.53	0.07	0.65	0.59	0.75	0.18	0.22	0.81	0.47	0.01	0.36	0.32	0.71	0.32	0.37	0.41	0.64	0.95	0.55	0.59	0.38	0.40	0.43	0.65	0.11	0.13	0.61	0.11	0.35	0.96	0.87	0.36
Informa Resourc	0.29	0.81	0.34	0.07	0.82	0.16	0.61	0.79	0.94	0.33	0.06	0.25	0.31	0.17	0.32	0.07	0.72	0.57	0.13	0.91	0.37	0.49	0.84	0.42	0.07	0.45	0.63	0.69	0.85	0.64	0.55	0.95	0.62	0.66	0.91	0.31	0.73	0.65	0.49	0.61

Factors affecting the perception of HCPs on patient safety

A Significant association between age and the overall satisfaction on patient safety (0.000). Whereas, gender was significantly associated to the perception of HCPs on Supervisor/manager expectations & actions promoting safety (0.025), staffing (0.040) and Overall satisfaction (0.005). There was a significant association between marital status versus overall satisfaction (0.021); type of family significantly versus perception on Teamwork within hospital units (0.013); and Place of residence versus perception on Teamwork within hospital units (0.023), respectively. Education were significantly associated to the perception on Supervisor/manager expectations & actions promoting safety (0.001), staffing (0.001), and overall satisfaction (0.000). Similarly, occupation was significantly correlated to the perception on Organizational Learning & continuous improvement (0.024), Teamwork within hospital units (0.004), Communication openness (0.035) and overall satisfaction (0.035). Income was significantly associated to the Supervisor/manager expectations & actions promoting safety (0.001), Teamwork within hospital units (0.000), Communication openness (0.000), Feedback/Communication about error (0.011), and overall satisfaction (0.000). Socioeconomic background of the participants were significantly correlated with the Teamwork within hospital units (0.000), Communication openness (0.000), Feedback/Communication about error (0.013), and overall satisfaction (0.000). Information resources were significantly correlated with Organizational Learning & continuous improvement (0.003), Teamwork within hospital units (0.000) Communication openness (0.009), and Feedback/Communication about error (0.014), however it was not significantly associated to the overall satisfaction. Work area of the included participants were significantly correlated to the Communication openness (0.020), Non punitive response to error (0.019) and overall satisfaction (0.000) on patient safety. A detailed description on the factors affecting the perception of HCPs on the patient safety is presented in Table 4.

Overall satisfaction on patient safety among our included patients were good. The factors such as age, gender, marital status, education, occupation, socioeconomic background and work atmosphere were significantly associated with the difference in their overall satisfaction. These findings were similar to the results of a study conducted by Goyal et al., where they have reported fairly good

perception on patient safety and standards of patient safety among the participants [Goyal RC et al., 2018].

Work environment was a factor which significantly affected the perception on communication openness and non-punitive error. Identification and mandatory reporting of events/ incidents is an important strategy to improve patient safety [Kohn LT et al., 1999]. The hospital system must ensure that all staffs and faculties who reports the adverse effects or events are getting acknowledged and encouraged for their continuous support which ultimately lead to a better patient safety [Youngberg BJ., 2008].

There is a plenty of prospect in enhancement with respect to event reporting, feedback and non-punitive error [Goyal RC et al., 2018] as well as all aspects of patient safety. Moreover, patient safety is an important aspect of healthcare system, and it should be treated with maximum priority. There should be a teamwork and communication openness among all the HCPs to ensure a better patient safety and all should have a good perception towards the management on patient safety through their continuous support. Management should encourage and acknowledge the efforts made by the faculties to have a better patient safety and care. [Youngberg BJ., 2008]

Table 4: Factors affecting the perception of HCPs on patient safety

Variables	Supervisor/ manager expectations & actions promoting safety	Organizational Learning & continuous improvement	Team work within hospital units	Communication openness	Feedback/ Communication about error	Non punitive response to error	staffing	Hospital management support for patient safety	Overall satisfaction
Age	0.693	0.330	0.068	0.309	0.498	0.136	0.928	-	0.000
Gender	0.025	0.819	0.151	0.244	0.294	0.239	0.840	-	0.005
BMI	0.162	0.235	0.000	0.725	0.065	0.230	0.976	-	0.000
Smoking	0.664	0.561	0.254	0.508	1.000	1.000	0.499	-	0.400
Alcoholic	1.000	0.422	0.503	0.376	1.000	1.000	0.369	-	0.545
Exercise	0.260	0.740	0.001	0.239	0.395	0.030	0.689	-	0.001
Diet	0.349	0.033	0.330	0.971	0.021	0.459	0.174	-	0.000
Religion	0.393	0.432	0.166	0.163	0.890	0.130	0.299	-	0.099
Marital status	0.498	0.198	0.066	0.057	0.369	0.438	0.292	-	0.021
Type of family	0.480	0.331	0.013	0.894	0.992	0.219	0.139	-	0.805
Place of residence	0.074	0.334	0.023	0.688	0.269	0.356	0.396	-	0.325
Education	0.001	0.225	0.365	0.567	0.486	0.113	0.001	-	0.000
Occupation	0.028	0.024	0.004	0.035	0.465	0.084	0.479	-	0.000
Income	0.001	0.320	0.000	0.000	0.011	0.761	0.194	-	0.000
Socioeconomic status	0.288	0.202	0.000	0.000	0.013	0.220	0.279	-	0.000
Information resources	0.143	0.003	0.000	0.009	0.014	0.462	0.156	-	0.196
Work area	0.387	0.149	0.071	0.020	0.126	0.019	0.090	-	0.000

CONCLUSION

Despite the fact that rural residents are well-versed in NRHM, there is a need for increased patient rights awareness through various programmes. The study was crucial in discovering that the majority of respondents were aware of patient rights, and that patient safety standards in the current rural health care hospital were fairly good, indicating that the current need is to address the country's holistic approach that aids existing inequalities, and to work to promote a long-term perspective plan exclusively for rural health.

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Authorship statement

Conception and design of study: Rajesh Venkataraman (RV), Renukaradhya Chitti (RC); **Acquisition of data:** RC; **Analysis and/or interpretation of data:** RV, RC; **Drafting the manuscript:** RC; **Clinical Inputs to the draft:** RV; **Revising the manuscript:** RC, RV; **Approval of the version of the manuscript to be published:** RC, RV

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All authors report no conflicts of interest to declare.

Data Availability Statement

The related to this work will be available from the corresponding author on appropriate request.

Ethical Committee statement

The Institutional Ethics Committee of the concerned institutions gave their permission. By explaining the goal of the research study to the NRHM department, the medical officer of the CHC, and the PHC village sarpanch, formal authorization was obtained. Before beginning the study, the respondents gave their informed consent.

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