

# Assess the attitude of Health Workers regarding Rural Clinical Practice in India

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## Abstract:

**Purpose** - The study aims to assess the different factors which influence the rural practice preference among health workers.

**Design/methodology/approach** - Primary Study was conducted in Rural Hospital. The primary data were collected through the structured questionnaire. Respondents are Rural Practice Health workers drawn through the convenience sampling method. The different factors which influence the rural practice preference among health workers were assessed

**Findings** - This study assessed the key factors at the individual level which act in favour of retention of Health workers in rural areas. It also highlights the conditions of health workers living in these areas, and their needs. this study were driven by varied combinations of factors including geographical affinities, personal values of service, professional interests and ambitions, strong relationships with colleagues.

**Social implications** - Planners and health authorities can address critical issues of workforce retention by professional education and recruitment policies that attract Health workers more likely to serve in rural areas.

**Originality/value** - This study assessed the key factors regarding preference rural practice among health workers. This study mainly focused on the key factor of the Health workers through the factor analysis.

**Keywords:** Health workers, Rural Clinical Practice, Job Satisfaction.

## 1. Introduction:

The global problem of the unequal distribution of the health workforce between cities and villages, with its severe consequences for the availability and quality of health services, and on health outcomes in rural and remote geographical areas, is also marked in India. Indian census estimates adjusted for educational qualifications reveal that the health worker density (including doctors, nurses and midwives) is approximately 8 per 10,000 population (PHFI 2008), well short of the suggested norm of 25 per 10,000 (WHO 2006). The geographic distribution of India's health workforce is disturbing. Most (60%) health workers are present in urban areas where 28%

of the population resides (PHFI 2008). This geographic imbalance in the health workforce hampers the ability of rural populations to access quality health services.

**2. Literature Review:-** Literature related to this study is divided into the following two parts

### **2.1 Attitude of Health Workers regarding Rural Clinical Practice in the World**

Many reasons have been documented for why health workers typically choose not to work in rural areas. Salary emerges as an important factor of a job and strongly affects the willingness to work in rural areas (Chomitz 1997; Serneels, Lindelow et al. 2007). The workplace environment has a great impact not only on health worker performance, but also on the comprehensiveness and efficiency of health service delivery. At health-sector level, the use of monetary and nonmonetary incentives is of crucial importance for having the accurate skill mix at the appropriate place. Scaling up of priority interventions is likely to require significant investments in initial and continuous training (Wyss, 2004). The studies suggest a gross lack of knowledge about the basics on how to diagnose and manage common diseases, going right across the health workforce and often associated with suboptimal, ineffective and dangerous health care practices (Bukachi, 2009). All participants felt that rural postings must have special career or monetary incentives given the loss of locum (i.e. moonlighting income), the higher workload, and professional isolation of remote assignments. Career 'death' and prolonged rural appointments were a common fear, and proposed policy solution focused considerably on career incentives, such as guaranteed promotion or a study opportunity after some fixed term of service in a remote or hardship area (Rachel C Snow et. al., 2011). Mechanisms to contribute to motivation were health workers' awareness of local problems and staff empowerment, gaining acceptance of new information and creating a sense of belonging and respect. In addition, staff was motivated by visible improvements in quality of care and salary supplements. (Marjolein Dieleman et.al., 2009) This study has shown that there is unequal distribution of health facilities as well as low level of accessibility of patient to medical facilities in the study area. The government should also encourage public-private participation in health care delivery at a price affordable by the rural people. This could be achieved through the provision of basic infrastructure such as accessible roads, electricity, water, drugs et cetera. (T. T. Awoyemi et. al., 2011) This study was carry out a Discrete Choice Experiment to compare how doctors and final-year medical students

in Vietnam value six job attributes, and use the results to simulate the impact of alternative incentive packages on recruitment in rural areas. (Marko Vujicic et. al., 2010)

## **2.2 Attitude of Health Workers regarding Rural Clinical Practice in India**

(Vaishali Gaikwad et.al., 2012) Conclude that the medical interns do not prefer the rural clinical practice because of the lack of Clinical Infrastructure, Lack of living facilities, Lack of Physical Environment and Lack of Opportunities for career growth.

(Kabir Seikh et. al., 2010) stated that Better salaries and job security were emphatically stated by contractual doctors, while the entire cross section of doctors emphasized the importance of more rational transfer and promotion procedures, filling of health worker vacancies, and improvements in materials and facilities. More opportunity for needs-based skills training and better housing also found significant mention. Social needs voiced included better schooling for their children, and assurance of personal security.

### **Research questions and hypotheses: -**

Health problems are often the most acute in rural and remote areas, especially in developing countries. But it is difficult to get health workers to serve in these areas. Most Health Workers prefer to settle in urban areas offering opportunities for professional development, education and other amenities for their families, and attractive employment opportunities. As a result, there is a mismatch between the geographic distributions of Health workers. The purpose of this research is to identify the key factors which influencing the Rural Clinical Practice. Questionnaires are used to data collection and then analyzed using statistical techniques. The findings show that the major factor which helpful to reduce the mismatch between the geographic distributions of Health workers.

The following of the research question are:

- RQ1. Identify the issue and challenges faced by Health workers in rural area?
- RQ2. Determine whether the Health workers getting basic facility serving in rural area.
- RQ3. Identify the causes of less attraction in serving rural area.
- RQ4. Find out the solutions for the causes of less attraction in serving rural area.

Accordingly, the following hypotheses were generated after the literature review:

- H1a. There is no significance difference in the problem faced by Health Workers.

H2a. There is no significance difference in factor which influences the attitude of Rural Clinical Practice.

**Research Methodology:**

- Data sources: Primary data and secondary data primary data
- Research design: - Descriptive research design.
- Sampling unit: Health Workers.
- Sample size: 100 samples are to be served.
- Sampling methods: Convenient Sampling Method
- Sampling Area: Gujarat
- Respondent: Health Workers
- Research approach: Survey method is used.
- Research instrument: Close Ended-Questionnaire

**Data analysis:**

The quantitative data will be analyzed using combination of descriptive and statistical inference techniques. SPSS used and the results will be presented in the form of graphs and chart as appropriate. The Research paper shows the major problem faced by the Health workers in Rural Clinical Practice.

Ho. There is no significance difference in the problem faced by Health workers in Rural Clinical Practice.

H1. There is significance difference in the problem faced by Health workers in Rural Clinical Practice.

1. Chi-squared tests are always two-tailed.
2. Specify the  $\alpha$  level:  $\alpha = .05$

**What are the problems you facing in Rural Clinical Practice?**

	Observed N	Expected N	Residual
Working Condition	20	14.3	5.7
Career Growth	10	14.3	-4.3
Salary	10	14.3	-4.3
Incentive/Promotion	15	14.3	.7
Social Life	21	14.3	6.7
Local Support	12	14.3	-2.3

Accomodation	12	14.3	-2.3
Total	100		

The first part of the output gives the categories in the first column, the observed frequencies of the categories in the second column, the expected frequencies of the categories in the third column, and the residual (the difference of the observed and expected frequencies) in the fourth column. For example, 20 people reported that they were faced problem regarding working condition, 14.3 people were expected to be faced problem regarding working condition if the proportions across the categories were equal, and the difference between the observed (20) and expected (14.3) is 5.7.

Test Statistics	
	Issue
Chi-Square	8.780 <sup>a</sup>
Df	6
Asymp. Sig.	.186

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 14.3.

The second part of the output gives the value of the chi-square statistic (8.780 in this example), the degrees of freedom (df) (6 in this example), and the p value is given on the last line of the output. In this example, the p value is .186.

Under the table are important statements about the assumptions of chi-square. In this example, none of the cells (categories) have expected frequencies less than 5. Thus, the assumption has been satisfied.

Decide whether to reject H<sub>0</sub> or not. If the p value (.186) is less than or equal to the  $\alpha$  level, then we can reject H<sub>0</sub>. In this case, the p value (.186) is greater than  $\alpha$  (.05) so we accept H<sub>0</sub>. That is, there is sufficient evidence to conclude that there is no significance difference in the problem faced by Health workers in Rural Clinical Practice.

**Factor Analysis:** Factor analysis is used to find factors among observed variables. In other words, if data contains many variables, Researcher can use factor analysis to reduce the number

of variables. Factor analysis groups variables with similar characteristics together. With factor analysis in this research paper researcher can produce a small number of factors related green house gas emission from a large number of variables which is capable of explaining the observed variance in the larger number of variables.

**Kaiser-Meyer-Olkin (KMO) and Bartlett's Test:** measures strength of the relationship among variables. The KMO measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed. If any pair of variables has a value less than this, consider dropping one of them from the analysis. The off-diagonal elements should all be very small (close to zero) in a good model. Looking at the table below, the KMO measure is 0.546.

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.546
Bartlett's Test of Sphericity	Approx. Chi-Square	48.676
	Df	15
	Sig.	.000

**Bartlett's test** is another indication of the strength of the relationship among variables. This tests the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is matrix in which all of the diagonal elements are 1 and all off diagonal elements are 0. From the same table, Bartlett's test of sphericity is significant That is, its associated probability is less than 0.05. In fact, it is actually 0.000, i.e. the significance level is small enough to reject the null hypothesis. This means that correlation matrix is not an identity matrix.

**Communalities**

	Initial	Extraction
How much you are satisfied / enthusiastic with your present working condition?	1.000	.979
Do you think there is any social,cultural,status growth while working in rural area?	1.000	.687

Do you feel there is any career growth while working with at present rural set up?	1.000	.682
Do you feel there is any carrier growth of your family/children while working in rural area?	1.000	.651
Do you think while working at village level Organisation should give extra incentive/promotion/future carrier growth?	1.000	.538
Are you satisfied with salary/honorarium given to you while working in rural area?	1.000	.470

Extraction Method: Principal Component Analysis.

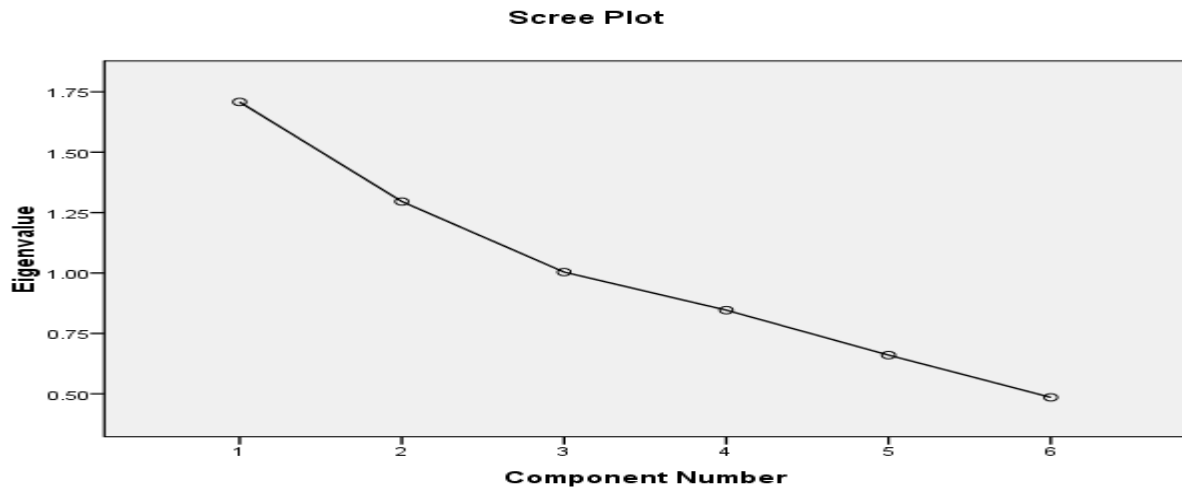
The next item from the output is a table of communalities which shows how much of the variance in the variables has been accounted for by the extracted factors. For instance the variance in any social, cultural, status growth while working in rural area is accounted for while 68.7% of the variance in the issue considers rural clinical practice is accounted for.

#### Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.708	28.468	28.468	1.708	28.468	28.468
2	1.296	21.600	50.068	1.296	21.600	50.068
3	1.004	16.732	66.800	1.004	16.732	66.800
4	.846	14.105	80.905			
5	.660	11.004	91.910			
6	.485	8.090	100.000			

Extraction Method: Principal Component Analysis.

The next item shows all the factors extractable from the analysis along with their eigenvalues, the percent of variance attributable to each factor, and the cumulative variance of the factor and the previous factors. Notice that the first factor accounts for 28.468% of the variance, the second 21.600% and the third 16.732%. All the remaining factors are not significant.



The scree plot is a graph of the eigenvalues against all the factors. The graph is useful for determining how many factors to retain. The point of interest is where the curve starts to flatten. It can be seen that the curve begins to flatten between factors 3 and 4. Note also that factor 4 has an eigenvalue of less than 1, so only three factors have been retained.

**Eigenvalue:** The standardized variance associate with a particular factor. The sum of the eigenvalues can not exceeds the number of items in the analysis, since each item contributes one to the sum of variances.

### Component (Factor) Matrix

The table below shows the loadings of the eight variables on the three factors extracted. The higher the absolute value of the loading, the more the factor contributes to the variable. The gap on the table represent loadings that are less than 0.5, this makes reading the table easier. We suppressed all loadings less than 0.5.

**Component Matrix<sup>a</sup>**

	Component		
	1	2	3
How much you are satisfied / enthusiastic with your present working condition?	.042	.138	.979



Do you think there is any social,cultural,status growth while working in rural area?	.738	-.364	.103
Do you feel there is any career growth while working with at present rural set up?	.119	.815	-.066
Do you feel there is any carrier growth of your family/children while working in rural area?	.806	.028	.016
Do you think while working at village level Organisation should give extra incentive/promotion/future carrier growth?	.701	.130	-.170
Are you satisfied with salary/honorarium given to you while working in rural area?	.076	.681	-.033

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

**Rotated Component Matrix<sup>a</sup>**

	Component		
	1	2	3
How much you are satisfied / enthusiastic with your present working condition?	.002	.049	.988
Do you think there is any social,cultural,status growth while working in rural area?	.765	-.306	.096
Do you feel there is any career growth while working with at present rural set up?	.046	.825	.013
Do you feel there is any carrier growth of your family/children while working in rural area?	.800	.097	.048
Do you think while working at village level Organisation should give extra incentive/promotion/future carrier growth?	.691	.206	-.132
Are you satisfied with salary/honorarium given to you while working in rural area?	.015	.685	.032

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

**Rotated Component (Factor) Matrix**

The idea of rotation is to reduce the number factors on which the variables under investigation have high loadings. Rotation does not actually change anything but makes the interpretation of the analysis easier. Looking at the table below, we can see that satisfied / enthusiastic with your present working condition are substantially loaded on Factor (Component) 3 while any career growth while working with at present rural set up and satisfied with salary/honorarium given to you while working in rural area are substantially loaded on Factor 2. All the remaining variables are substantially loaded on Factor 1. These factors can be used as variables for further analysis.

## **Conclusion**

This study shows that the Health workers mainly focus on the issue and problem of Working condition of Rural Clinical Practice. Health workers also focus on the Salary aspect and the Career growth aspects. Organisation should give incentive/ timely promotion /future carrier growth. So the Organisation make policy about the incentive/promotion should be implemented servicing in rural/tribal areas. This study also discussed the issue related Good educational facilities and all amenities to be provided, carrier growth of family members while working in rural areas, compromise in social and family life. Re-employ retired Health workers with attractive salary and incentives for the rural areas only. That the rural service should be one year and compulsory and only when a doctor has served that term will they be allowed to register with the Medical Council of India. The government should also look to open more medical colleges in rural areas and try to provide better quality care rural clinical service and try to reduce the mismatch between the geographic distributions of Health workers.

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