MOTIVATION OF HEALTH WORKERS AND THEIR PERFORMANCE AT GRASSROOTS LEVEL AND ATTITUDE OF PEOPLE TOWARDS HEALTH SERVICES AND DELIVERY: FINDINGS OF A FIELD STUDY IN GUJARAT & ODISHA STATES OF INDIA

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ABSTRACT

Background: *Motivation is a force that initiates, guides and maintains goal-oriented behaviors. There are different theories which have been proposed to describe the various aspects of motivation as well as job satisfaction of workers. Health worker motivation and work performance are closely related.*

Aims & Objectives: *To improve Health worker motivation through incentives has been tried many a times in India. This paper tries to explore the level of motivation among the grass-roots level health workers in the two states of Gujarat and Odisha based on a sample survey of health workers.*

Materials and Methods : *Bivariate cross-tabulations and binary logistic regression was carried out to analyze the data.*

Results : *With regards to the responses to the attitude statements, it was observed that there is a lack of clarity of functions, roles and responsibilities among the health workers and panchayat functionaries. It was observed that the involvement of the panchayati raj institutions (PRIs) is crucial for the performance of the grassroots level health functionaries like ANMs.*

Conclusions: *Better coordination between the health care facilities and the PRIs will improve the motivation of health workers as well as the overall functioning of health care services at different levels.*

Keywords: Health Workers; Panchayati Raj Institutions; Motivation; Gujarat; Odisha; India

Introduction

Health worker motivation and health worker performance are closely related. Health worker motivation in terms of incentives has been tried a lot in the history of family planning programmes in India. This paper tries to explore the level of motivation among the health workers in these two states from a sample of health workers using a five point likert type scale. Motivation is the force that initiates, guides and maintains goal-oriented behaviors. In order to assess the motivation of health workers, a scale has been used in this study. Motivation seems to be a major factor in deciding the performance of workers in any setup. Monetary or non-monetary incentives are given to improve the work performance. This is based on the theories of motivation, which guides goal-oriented behaviours. Motivation causes us to take action, whether to grab a snack to reduce hunger or to enroll in college to earn a degree. The forces that lie beneath motivation can be biological, social, emotional or cognitive in nature. Researchers have proposed a number of theories to explain motivation and job satisfaction of workers. Some of the theories are the theory of Scientific Management by Frederick Winslow Taylor, theory by Elton Mayo, of Frederick Herzberg's theory proposing Job enlargement, Job enrichment and empowerment.

Aims & Objectives: The aim of this study was to understand attitudes of the people towards health services and the level of motivation of among health workers at the grassroots level.

Materials and Methods

Study Area: This study was carried out in two states namely Gujarat and Odisha situated in the western and eastern part of India respectively. Gujarat and Odisha have been considered for this study as one belongs to an Empowered Action Group (EAG) state (Odisha) and the other belonged to the Non-EAG group (Gujarat). In general, Odisha is low on many social and health indicators, while Gujarat is high in them. So, Odisha has been considered as a focused state

under NRHM. The Socio-Economic and Demographic Profile of Gujarat, Odisha have been compared with India in the following table:

Table 1 : Socio-Economic and Demographic Profile of Gujarat, Odisha & India

Indicators	Gujarat	Odisha	India
Population			
Population (in million), Census 2011	60.4	42.0	1210.9
Decadal Growth Rate, 2001-2011 (%) Census 2011	19.3	14.0	17.7
Population Density (persons per Sq. Km.) Census 2011	308	270	382
Percentage urban (%), Census, 2011	42.6	16.7	31.2
Percentage of Scheduled Tribes (%), Census, 2011	14.8	22.8	8.6
Overall Sex Ratio, (No. of Females per thousand Males), Census 2011	919	979	943
Child Sex Ratio (0-6 years) (No. of Female children per thousand Male children), Census 2011	890	941	919
Poverty Levels			
Percentage below poverty line (using Tendulkar Methodology) (2011-12)	16.63	32.59	21.92
Education			
Total Literacy Rate (%), Census 2011	78.0	72.9	73.0
Male Literacy Rate (%) Census 2011	85.8	81.6	80.9
Female Literacy Rate (%)Census 2011	69.7	64.0	64.6
Absolute difference between Male and Female literacy (%) Census 2011	16.1	17.6	16.3
Health			
Crude Birth Rate, (no. of live births per thousand mid-year population), SRS, 2011	21.3	20.1	21.8
Infant Mortality Rate, (no. of infant deaths per thousand live births), SRS, 2011	41	57	44
Maternal Mortality Ratio, (no. of maternal deaths per 100,000 live births), SRS, 2007-09	148	258	212
Total Fertility Rate, (lifetime births per woman), SRS, 2011	2.4	2.2	2.4
Contraceptive Prevalence Rate, (%), DLHS-3, 2007-08	61.6	47.0	54.1
Unmet Need for family planning (%), NFHS-3, 2005-06	8.2	14.9	12.8
Life Expectancy at Birth (in years), SRS, 2002-06	63.9	59.2	63.5
Human Development Index, Rank 2007-08, IAMR, PC	11	22	-

Sources: Census of India 2011, NFHS-3, DLHS-3, SRS, RGI, GoI, IAMR, PC: Planning Commission, GoI
Note: NFHS: National Family Health Survey, DLHS: District Level Household Survey, SRS, Sample Registration System, RGI: Registrar General of India, GoI: Government of India, IAMR: Institute of Applied Manpower Research, PC: Planning Commission
The population of India includes the population of 3 sub-divisions of Senapati district of Manipur of 285,404.

Sample size and selection: Considering the average level of performance of health programme indicators amongst the districts, Khurdha in Odisha and Vadodara in Gujarat were selected as the sample districts, under which, two blocks were selected from each district and one PHC was

selected from each block. Under one PHC, one Sub-centre was selected and two villages coming under each Sub-centre were included. From each village, a sample of 60 respondents (including men and women) were randomly selected to administer a structured questionnaire to assess the extent of utilization, types of services received and the level of satisfaction from the public health care facilities. Out of the four villages in each district, two PHC villages and two non-PHC villages were selected. The data was collected through a questionnaire for 480 currently married women (15-49 years of age) and 480 currently married men (15-54 years of age) from these 480 households. In all, 23 health workers were administered the scale.

Table 2 : Sample size and sample allocation, 2009-10

State	District	Block	Households	Currently Married Males (15-54 years)	Currently Married Females (15-49 years)	Total respondents (Males and Females)
Gujarat	Vadodara	Vadodara	120	120	120	240
		Kawant	120	120	120	240
Odisha	Khurdha	Khurdha	120	120	120	240
		Banapur	120	120	120	240
Total			**480**	**480**	**480**	**960**

Materials

This primary quantitative survey includes data collected through a semi-structured questionnaire for each for currently married men 15-54 years and currently married women 15-49 years of age and health workers. A semi-structured questionnaire was used to assess the current status of the health facilities and the level of health service utilization, which included attitude scales to gauge the attitude of people towards health services. In order to assess the level of motivation of health workers, a motivation scale was used. Both Bivariate and Multivariate analysis were carried out.

Health worker motivation scale and the attitude scale for the community towards public, private and NGO/ Trust health services delivery and utilization: A Health worker's motivation scale was constructed to assess the level of motivation among the health workers The attitude of the respondents towards public, private and health service delivery through civil society organizations or Non-Governmental Organizations (NGOs) was measured through attitude scales. These were constructed along the lines of Likert type attitude scales with five response categories of Strongly Disagree=1, Somewhat Disagree=2, Neither Agree nor Disagree=3, Somewhat Agree=4 and Strongly Agree=5. They were thoroughly pretested and rated. In order to understand the domains of motivation among health workers, ANMs were administered the scale in the two states of Odisha and Gujarat. It was quite difficult to interview more ANMs, as there were mostly in the field in any of the villages in their sub-centre catchment area, whenever contacted. The major factor which was reported by them was the complaints from the *Sarpanch* and *Panchayat Sabhyas* regarding their work. This reflects the lack of coordination and involvement of PRIs in the grassroots health service delivery.

Reliability of the motivation and attitude scales: The reliability of the scales has been measured through cronbach alpha, which is a measure of internal consistency. A reliability coefficient of 0.70 is considered acceptable in most social science research studies and situations. George and Mallery (2003) have provided the following rules of thumb: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable". The alpha coefficient of 0.7 for the health worker motivation scale suggest that the items have relatively high internal consistency.The alpha coefficients of 0.70, 0.72, 0.84 and 0.85 of the attitude scales (for males and females)suggest that the items have relatively high internal consistency. The Health worker's motivation scale was administered to the health workers.

Table 3 : Cronbach Alpha values of Reliability of the Motivation &Attitude Scales

Particulars	Cronbach Alpha Value	Acceptability
Health worker Motivation Scale	0.70	Acceptable
Attitude Scale 1F : Attitude towards Govt. health services delivery and utilization-Females	0.70	Acceptable
Attitude Scale 1M : Attitude towards Govt. health services delivery and utilization-Males	0.72	Acceptable
Attitude Scale 2F : Attitude towards private, NGO, Trust health services delivery and utilization-Females	0.85	Good
Attitude Scale 2M : Attitude towards private, NGO, Trust health services delivery and utilization-Males	0.84	Good

Results

Socio-Demographic Profile of Respondents: The socio-demographic profile of the respondents has been presented in the following table:

Table 4 : Demographic and Socio-economic Profile of the Respondents in Gujarat and Odisha (%), 2009-10

Background Characteristic	Vadodara (Gujarat) (N=480)			Khurdha (Odisha) (N=480)		
	Total	Males	Females	Total	Males	Females
Age Group						
15-24 years	17.1	10.4	23.8	7.3	2.5	12.1
25-34 years	34.8	31.7	37.9	39.6	32.5	46.7
35-49 years	40.8	43.3	38.3	47.3	53.3	41.3
50-54 years	7.3	14.6	-	5.8	11.7	-
Literacy						
Not literate	38.1	27.1	49.2	11.7	8.8	14.6
Literate	61.9	72.9	50.8	88.3	91.2	85.4
Occupation						
Unemployed	0.4	0.8	0.0	1.7	2.5	0.8
Cultivator/Farmer	31.0	39.2	22.9	9.4	18.8	0.0
Agricultural labourer	33.5	29.2	37.9	2.7	5.0	0.4
Non-agricultural labourer	1.7	2.1	1.3	13.1	22.5	3.8
Service	12.5	20.8	4.2	8.1	15.0	1.3
Self-employed/Petty business	7.1	6.7	7.5	17.9	34.2	1.7
House wife/Household work	13.5	0.8	26.3	46.5	0.8	92.1
Student/Retired/Aged	0.2	0.4	0.0	0.6	1.3	0.8

This attitude of respondents towards public health services delivery and utilization and health service delivery by private, NGOs and trusts and about their utilization of health services and the motivation of health workers have been presented as follows:

Findings from the attitude Scale 1 for males and females- Attitude towards Govt. health services delivery: Among the nine statements, the attitude towards sub-centre as a place of child delivery was strongly disagreed to by 77.7 per cent males and 80.2 per cent females, which shows that sub-centres are not considered a place of delivery by the majority of the respondents in both the states. The attitude and perception towards the Govt. health services in Gujarat is better compared to Odisha. This is demonstrated by the fact of strong agreement to the statements; "Medicines are always available at PHCs", "Doctors are always present at PHCs", "Doctors are always present at CHCs" and "We do not have to wait for treatment for a long time at Govt. Hospitals". The mean for the statement "The ANM/ MPHW/ Nurse comes and visits our village for ANC/ PNC care, immunization and other health care activities" is 4.03 for males and 4.11 for females, which exhibits that the female respondents agree more than the males to this statement. The mean for the statement "The ASHA comes and visits our village for ANC/ PNC, immunization and other health care activities" is 4.09 for males and 4.20 for females, which exhibits that the most respondents agree to the statement. The mean for the Statement that "Sub-centres are the nearest health facility" is 3.61 for males and 3.58 for females, which shows that it bordering on the neither agree nor disagree or neutral response. The mean for the statement, "A sub-centre is a place of delivery" is 1.47 for males and 1.42 for females, which makes it evident that most of the respondents do not agree to this statement. In case of the statement, "Medicines are always available at PHCs", the mean is 3.98 for males and 3.95 for females, which exhibits agreement. In case of the statement, "Doctors are always present at PHCs", the mean is 3.92 for males and 3.82 for females, which denotes agreement. The mean of the statement, "Doctors are

always present at CHCs", is 4.39 for males and 4.32 for females, which shows higher agreement. The mean of the statement, "We do not have to wait for treatment for a long time at Govt. Hospitals" is 3.70 for males and 3.46 for females, which shows that the response is mostly neutral.

Findings from the Attitude Scale 2 for males and females - **Attitude towards health services of private, NGO and Trust facilities:** The inclination towards utilization of private and NGO trust health services is evident from the fact that both the male and female respondents from the two states have responded in affirmation to the statement that "Private clinics and hospitals offer faster service than NGO and Govt. Hospitals" and the statement that " We do not have to wait for treatment for a long time at private Hospitals". There is a wide variation between the two states with regards to the response to these statements of the second scale. The favourable perception and attitude of the respondents towards private and NGO / Trust hospital is reflected in the agreement towards the statements of ; "Private clinics and hospitals offer faster service than NGO and Govt. Hospitals", "We do not have to wait for treatment for a long time at private Hospitals", and "Private clinics and hospitals under Govt. schemes also charge patients". The mean for the statement "Private clinics and hospitals offer faster service than NGO and Govt. Hospitals" is 4.39 for both males and females, which exhibits that the respondents agree more to this statement. The mean for the statement "We do not have to wait for treatment for a long time at private Hospitals" is 4.33 for males and 4.32 for females, which exhibits that the most respondents agree to the statement. The mean for the Statement that "Private clinics and hospitals under Govt. schemes also charge patients" is 3.26 for males and 3.09 for females, which shows that it bordering on the neither agree nor disagree or neutral response. The mean for the statement, "We borrow to pay for the services at private hospitals" is 3.86 for males and 3.80 for females, which makes it evident that most of the respondents are neutral about this statement.

In case of the statement, "The staffs at private hospitals behave nicely with us", the mean is 4.44 for males and 4.45 for females, which exhibits strong agreement. In case of the statement, "Medicines are regularly available at NGO / Trust hospitals", the mean is 3.98 for males and 3.88 for females, which denotes some agreement. The mean of the statement, "NGO / Trust doctors are always present at the facility", is 4.00 for males and 3.89 for females, which shows higher agreement. The mean of the statement, "NGO / Trust clinics and hospitals offer faster service than private and Govt. Hospitals", is 3.65 for males and 3.47 for females, which suggests neutral agreement. The mean of the statement, "We do not have to wait for treatment for a long time at NGO/ Trust Hospitals" is 4.00 for males and 3.76 for females, which shows that the response is of somewhat agreement.

Findings from the Health worker motivation scale : The major factor which was reported by the ANMs, was the complaints from the *Sarpanch* and *Panchayat Sabhyas* regarding their work. This reflects the lack of coordination and involvement of PRIs in the grassroots health service delivery. Remuneration as a factor, which is supposed to affect their motivation was reported in case of Odisha.

Multivariate Analysis : A binary logistic regression was carried out with the dependent variable of current use of contraception to see, whether the attitude towards the health services contribute towards actual health services utilization. It was observed that those who had a favourable attitude towards NGO or Trust services were more likely to use contraception compared to those who had an unfavourable attitude towards NGO or Trust health services. Those who had a favourable attitude towards NGO/ Trust health services were more than two times (AOR 2.579, 95% CI: 1.253-5.307, $p < 0.05$) more likely to use contraception in the Odisha.

Table 5 : Adjusted Odds Ratios (AOR) from Multivariate Binary Logistic Regression Analysis of the likelihood of current use of contraception among currently married women in the reproductive age of 15-49 years in Gujarat and Odisha, 2009-10

Dependent Variable : Current use of contraception

Predictors used in the model	Definition	Gujarat AOR (95% CI)	Odisha AOR (95% CI)
N for females of 15 to 49 years		240	240
Attitude towards Govt. Health Services	0 for Unfavourable attitude [ref] 1 for Favourable attitude	2.261(0.340-15.503)	1.227 (0.639-2.357)
Attitude towards NGO/ Trust Health Services	0 for Unfavourable attitude [ref] 1 for Favourable attitude	1.080 (0.082-14.259)	2.579 (1.253-5.307)*

*: Statistically Significant at 5% level **: Statistically Significant at 1% level. [ref] Refers to Reference Category.
AOR: Adjusted Odds Ratio, 95% CI: 95 Per cent Confidence Interval
The model is adjusted for the education, work status of the woman, type of family, caste, well-being quintile constructed based on the possession of household assets.

Discussion: Various studies have shown the benefiting results of health worker motivation on the performance of health workers. Ramachandran et al., (2010) have found that the use of videos did help, engage village women in dialogue, show positive effects toward health worker motivation and learning and motivate key community influencers to participate in promoting the health workers. In a study by Peters et al., (2010), on different types of health workers in two states of Andhra Pradesh and Uttar Pradesh suggest that understanding motivation of health workers is highly dependent on the local context. Perhaps one of the most important implications of this is that health managers ought to be asking their own workers about their particular motivational factors, and developing plans locally to address them. The findings suggest the following for improving the motivation of health workers; like clear improvements in training opportunities for skill development and availability of equipment for effective use of existing professional skills, need for health sector human resource management, reorganization of health

worker cadres into smaller geographical entities, so that potential candidates can self-select geographic cadres according to their personal preferences, transparent, responsive and reliable transfer and posting policy, the financial package was rated lower in importance compared to the job content and work environment, employers both in public and private sector are well advised to not ignore salary and perks of health workers, training and motivation of supervisory personnel to promptly recognize good work, and foster autonomy supporting environment will improve health worker motivation.

Conclusions: This study tries to understand the factors underlying the attitude and motivation of the beneficiaries and grassroots health workers in two states of India. It was observed that those who had a favourable attitude towards NGO or Trust services were more likely to use contraception compared to those who had an unfavourable attitude towards NGO or Trust health services. With regards to the responses to the attitude statements in the five point scale, it was observed that there is a lack of clarity of functions, roles and responsibilities among the health workers. Remuneration is a factor, which is supposed to affect their motivation in case of Odisha as proposed in the theory by the Psychologist, Frederick Winslow Taylor in his theory of scientific management.Focus group discussions with ANMs revealed that in the beginning of NRHM, when untied funds were granted, they were quite motivated, as they can now address small needs of the beneficiaries in transportation, in buying delivery related materials at the grassroots level. But, their motivation got dampened with the strict financial norms exercised by the accounts personnel in the PHCs, when they submitted the expenditure. They were asked for bills for everything, which in remote areas was next to impossible.Devolution of primary health care function under the 29 functions mentioned in the 11th schedule of the constitution entails more and more involvement of PRIs with joint orientations with health officials and workers, which can improve the situation for greater decentralization and motivational levels among the

health functionaries. Involvement of Civil Society Organizations and NGOs in the process of formation, capacity building and management of RKS at the District Hospital, CHC and PHC level and VHSCs can improve health services delivery. As Frederick Herzberg, the American Psychologist had said that the managers need to empower the workers to take more decisions, which will lead to increased motivation, there is a need for skill building of the ANMs in assertiveness. Clarity of roles and functions is also necessary through regular refresher training and the ANM needs to be empowered to take decisions, for which her confidence has to be built with clear cut instructions about her role in the utilization of untied funds available at the Sub-centre. It was found that the involvement and positive participation of the PRIs in a village is crucial for the performance of the ANMs. Better coordination among the frontline grassroots health workers and the members of PRIs is the need of the hour. Better coordination between the health care facilities and the PRIs will improve the motivation of health workers as well as the overall functioning of health care services at the Sub Centre and PHC levels.

Recommendation: Not many similar studies of attitudes towards health services delivery and utilization and health worker motivation in developing or transition countries have been conducted. So, this study contributes towards our knowledge on it.

Limitation of the study : The study has been conducted in two districts of the two states, which could be conducted on a large scale to generalize the findings.

Relevance of the study: These findings provide key insights into motivational factors and indicate range of interventions that could be implemented.

Author's Contribution: The author was responsible for the conception, design of study, data collection and data analysis and interpretation and drafting of the article.

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