MOTIVATION AND JOB SATISFACTION AMONG MULTIPURPOSE HEALTH WORKERS IN HILLY AND NON-HILLY AREAS OF JASHPUR DISTRICT, CHHATTISGARH: AN EXPLORATORY STUDY

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Abstract. It is essential to have a capable and motivated health workforce for building an effective, responsive health system and in turn achieve national health goals. The present cross sectional study was conducted in Chhattisgarh, India to assess the level of motivation and job satisfaction among multipurpose health workers (MPWs) and to study factors influencing them. A pre-tested semi-structured questionnaire was used to obtain information about the respondents' perceived importance of various job characteristics and perceived job satisfaction. The majority of MPWs were not satisfied with their existing job conditions. Motivators or satisfiers like career advancement and achievement had low scores for all the participants. Working conditions and salary were found to be the dissatisfiers with low scores. The present study suggests that, although financial incentives are important, they are not sufficient to motivate personnel to perform better.

Keywords: job satisfaction, motivation, multipurpose health worker, India

INTRODUCTION

Health workers are critical parts of an effective and responsive health system; their job being to protect and improve the health of their communities. WHO declared "Working Together for Health" as the theme for World Health Day 2006 (WHO, 2006). This signifies the importance of developing capable, motivated, and supported health workers who can achieve global and national health goals. Moreover, it is essential to have an equitably deployed health workforce as a sustainable human resource with adequate strategic investment.

WHO has identified a threshold in workforce density below which high coverage of essential interventions, including those necessary to meet the health-related Millennium Development Goals (MDGs), is very unlikely (WHO, 2006). According to these estimates, India is one of the countries with critical shortage of human resources for health. The health workers'

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shortfall is up to the extent of 20%, or approximately 400-600,000. This in turn is associated with inequitable distribution leading to limited coverage of health interventions (Rao *et al*, 2009). In addition to having adequate numbers and equitable distribution, it is also crucial to maintain high morale of the workforce for optimal functioning of the health system.

In India, the health workforce comprises physicians, nurses, laboratory personnel, pharmacists, and multipurpose health workers (MPWs). Following the recommendations of the Kartar Singh Committee report in 1973 (Ministry of Health and Family Planning, 1973), the MPW scheme was introduced in the country. Under this initiative, most of the categories of staff under various unipurpose programs were redesignated for multipurpose work (Datta, 2009). These MPWs who work at sub-centers are the first point of contact with the health system for the community. They provide basic health services from the sub-centers catering to a population of 3,000 in hilly areas and 5,000 in non-hilly areas. Currently, MPWs play a crucial role in the primary health care system in India.

As most people live in rural areas, an extensive network of public health works is required to provide appropriate care close to the rural people. It has been observed that the main determinant of health sector performance is health worker motivation, and while resource availability and worker competence are necessary, but not sufficient (Garcia-Prado, 2005). In the work context, motivation can be defined as an individual's degree of willingness to exert and maintain an effort towards organizational goals (Bennett *et al*, 2001). Motivation of a staff member is determined by various factors both at individual and organizational levels (Franco *et al*, 2002). The terms 'job satisfaction' and 'motivation' are often used interchangeably; however, there is a distinction. Job satisfaction is a person's emotional response to his or her job condition, whereas motivation is the driving force to pursue and satisfy needs (Smith, 1994). Neither job satisfaction nor motivation is directly observable, but both have been identified as critical to the retention and performance of health workers (Kivimaki *et al*, 1995; Tzeng, 2002; Mbindyo *et al*, 2009).

Evidence suggests that motivation and satisfaction of health workers is highly dependent on the local context (Peters *et al*, 2010). However, there are limited studies exploring health worker job satisfaction, motivation, and performance in the Indian context. There is a need to understand the ways health workers perceive their jobs and the importance they give to the various factors influencing their motivation. This will provide useful insights to develop strategies for improving performance of health workers, particularly in rural India.

Chhattisgarh is a state in India with a health workforce density that is six times lower when compared to states such as Kerala and Goa (Datta, 2009). There are 4,741 sub-centers in the state, out of which 602 do not have any MPWs (MOHFW, 2010). Ideally, each sub-center should be staffed by two MPWs, at least one auxiliary nurse midwife (ANM)/female health worker, and one male health worker. However, 2,227 sub-centers in the state are managed by only one female MPW. The present study was conducted in Chhattisgarh to assess the level of motivation and job satisfaction of MPWs and to study factors influencing them. Furthermore, the study aimed to do a comparative analysis of motivation and job satisfaction level

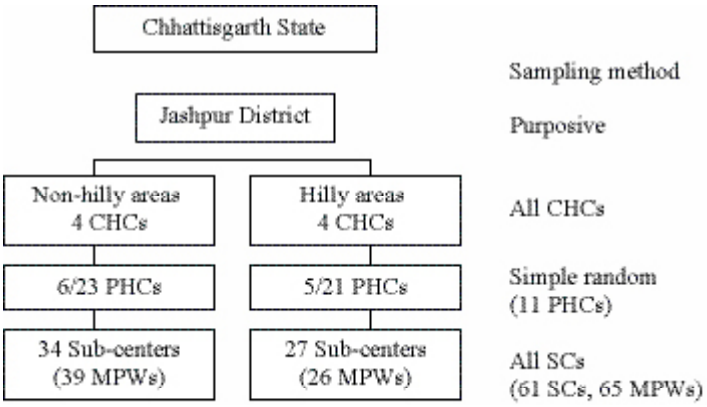

Fig 1–Sampling framework for selection of study participants.

between MPWs working in hilly and non-hilly areas of the State and to identify the underlying factors.

MATERIALS AND METHODS

This cross sectional study was carried out in Jashpur District, Chhattisgarh State, from March to June 2009. The study area was purposively selected (Fig 1). Jashpur District has both hilly and non-hilly terrains. There are eight community health centers (CHCs) in the district, of which four are located in hilly areas and four in non-hilly areas. In total, there are 21 primary health centers (PHCs) with 122 sub-centers (SCs) in hilly parts of the district, while the non- hilly areas is served by 23 PHCs and 135 SCs.

Eleven PHCs were randomly selected: five from hilly and six from non-hilly areas, representing 25% of total PHCs. There were 27 sub-centers in the hilly PHCs and 34 sub-centers under the selected non-hilly PHCs. The hilly sub-centers were manned by 26 MPWs, while in non-hilly areas there were 39 MPWs. All 65 health workers were included in this study, which represented 23% of total MPWs in the district.

For data collection, the respondents were contacted during the monthly PHC meetings. MPWs who were absent from the meetings were later contacted at their respective sub-centers. A maximum of three attempts were made to contact the respondents. After three visits, information from 58 MPWs (32 MPWs from non-hilly and 26 from hilly areas) out of 65 MPWs was collected.

Data were collected through a mixed method approach, comprising both quantitative and qualitative techniques. A semi-structured questionnaire was prepared using Herzberg's motivation-hygiene theory (Herzberg, 2003). This model assists in clarifying the complex issue of motivation for health workers. This two-factor theory distinguishes between motivating factors (or 'satisfiers') that are intrinsic to the job and the primary causes of job satisfaction, and 'dissatisfiers' (which Herzberg also calls 'hygiene factors') that are extrinsic to the job and the primary causes of job dissatisfaction, or 'unhappiness on the job.' The questionnaire was translated into the local language, validated, and pre-tested with eight MPWs in non-study health facilities. After pretesting, the questionnaire was modified accordingly and was administered to the participant after obtaining informed verbal consent. Necessary clearance and prior approval was obtained from the institutional committee of the Indian Institute of Public Health-Hyderabad as part of a postgraduate Diploma in Public Health Management dissertation work on 17 March 2009. All measures were taken to maintain the privacy and anonymity of the par-

ticipants. The questionnaire comprised three parts. Part One included questions on respondent's personal information, and the second part consisted of 12 questions, using a Likert scale, that enquired about the importance of motivational and hygiene factors, namely: responsibility, recognition, opportunity or advancement, meaningful work, achievement, growth, supervision, payment and benefits, social status, working condition, organizational policy, and job security in their service life. Answers were ranked for the level of importance they had for the respective factors as follows: 'not at all important' (1), 'not important' (2), 'neutral' (3), 'important' (4), and 'very important' (5).

Section three of the questionnaire explored participants' perceived satisfaction for the above-mentioned 12 factors in their existing work environment. Under each factor there were three items exploring perceived satisfaction. Respondents were asked to indicate their level of satisfaction or dissatisfaction for each item. The scale ranged from 1 to 5, with 1 = 'very dissatisfied,' 2 = 'dissatisfied,' 3 = 'indifferent' (neither satisfied nor dissatisfied), 4 = 'satisfied,' and 5 = 'very satisfied.' An average score for each factor was computed from the responses. Responses of 4 or more were classified as 'satisfied,' 3 to 4 were classified as 'indifferent,' and'scores of less than 3 were grouped as 'dissatisfied.' Reliability analysis of the questionnaire gave a Cronbach's alpha coefficient of 0.77, which was considered adequate and internally consistent.

Data were entered in an MS-Excel® (Microsoft Corp, Redmond, WA) spread sheet and analyzed using SPSS® version 16.0 (SPSS, Chicago, IL). Initially, descriptive statistics were computed. Mean and standard deviations were calculated for three different groups: hilly region, non-hilly region, and total. Mann-Whitney *U* test was used to correlate age group, sex, length of service, and place of service, with overall job satisfaction and satisfaction with the job-related 12 factors. Next, Spearman's *rho* coefficients were calculated for correlation between all these factors of job satisfaction.

In addition, to have a contextual understanding of factor influencing motivation and job satisfaction 15 participants (constituting 25% of total respondents) were selected for qualitative data collection. One focus group discussion (FGD) with seven MPWs and eight in-depth interviews were conducted in total. All these interviews were held at the CHC where the MPWs come to attend their review meeting. The respondents were selected randomly. The interviews and FGD were conducted by the researchers using an interview schedule and FGD guide. Probing questions were asked to elicit participants' views and perceptions on what motivates them to work in their present job; what opportunities they see in their current job; how they perceive the existing performance appraisal mechanism; what incentives would motivate them to perform better; how could the existing work environment be improved; what are the important impeding factors for their day to day work functioning; what are the positive and off-putting attributes of their job and which factors contribute to job satisfaction for them. The information collected from FGD and in-depth interviews were transcribed verbatim and translated into English. They were analyzed in three stages: familiarization, charting, and interpretation. Broad themes were identified, individual charts for each theme were prepared, and the charts were used to triangulate data.

Table 1
Mean scores of perceived importance of job characteristics by MPWs in hilly and non-hilly areas.

Factors	Mean motivation and hygiene scores (SD)			*p*-value
	Total Mean (SD)	Hilly area Mean (SD)	Non-hilly area Mean (SD)	
Motivation and hygiene factor	4.32 (0.46)	4.29 (0.36)	4.35 (0.35)	0.52
Responsibility	4.59 (0.68)	4.58 (0.50)	4.59 (0.80)	0.95
Recognition	4.03 (0.75)	4.00 (0.80)	4.06 (0.72)	0.79
Advancement	4.34 (1.09)	4.35 (0.85)	4.34 (1.26)	0.97
Meaningful work	4.57 (0.57)	4.50 (0.65)	4.63 (0.49)	0.38
Growth	4.38 (0.59)	4.38 (0.64)	4.38 (0.55)	1.00
Achievement	4.03 (0.62)	4.00 (0.63)	4.06 (0.62)	0.70
Good boss	4.45 (0.78)	4.27 (0.72)	4.56 (0.72)	0.30
Salary	4.07 (0.72)	4.08 (0.74)	4.22 (0.61)	0.80
Social status	4.31 (1.05)	4.27 (0.72)	4.16 (0.88)	0.11
Working condition	4.38 (0.67)	4.08 (0.74)	4.03 (0.78)	0.80
Policy	4.36 (0.52)	4.35 (0.49)	4.34 (0.60)	0.90
Job security	4.34 (0.66)	4.69 (0.55)	4.78 (0.49)	0.51

Table 2
Mean scores of perceived satisfaction for motivational and hygiene factors by MPWs.

Factors	Mean motivation and hygiene factor scores (SD)			*p*-value
	Total Mean (SD)	Hilly area Mean (SD)	Non-hilly area Mean (SD)	
Motivation and hygiene factor	3.24 (0.39)	3.19 (0.48)	3.29 (0.29)	0.33
Responsibility	3.68 (0.61)	3.55 (0.55)	3.79 (0.65)	0.14
Recognition	3.77 (0.58)	3.82 (0.53)	3.73 (0.62)	0.56
Career advancement	2.17 (0.98)	2.35 (0.93)	2.03 (1.01)	0.21
Meaningful work	3.41 (0.65)	3.31 (0.76)	3.49 (0.55)	0.30
Growth	3.22 (0.71)	3.10 (0.82)	3.32 (0.60)	0.24
Achievement	2.99 (0.70)	2.96 (0.83)	3.01 (0.58)	0.78
Good boss	3.51 (0.79)	3.64 (0.81)	3.40 (0.76)	0.25
Salary	2.49 (0.76)	2.49 (0.76)	2.49 (0.77)	1.00
Social status	3.84 (0.55)	3.69 (0.62)	3.96 (0.46)	0.06
Working condition	2.70 (0.82)	2.56 (0.94)	2.80 (0.71)	0.27
Policy	3.51 (0.67)	3.18 (0.65)	3.77 (0.56)	0.0005
Job security	3.64 (0.72)	3.63 (0.83)	3.64 (0.64)	0.95

Table 3
Correlation coefficients for aspects of perceived job satisfaction of MPWs.

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10	Factor 11
Responsibility	—										
Recognition	*0.542	—									
Opportunity/advancement	0.092	0.204	—								
Meaningful work	0.135	0.217	0.437	—							
Growth	*0.316	0.230	*0.290	*0.400	—						
Achievement	*0.277	*0.328	0.059	0.220	0.189	—					
Good boss	0.226	*0.393	*0.563	*0.386	*0.373	0.140	—				
Salary and other incentives	0.198	0.020	0.078	0.097	*0.348	0.125	0.067	—			
Social status	0.101	*0.304	0.141	*0.258	0.256	*0.371	*0.480	-0.124	—		
Work environment	*0.288	0.130	0.144	*0.375	*0.459	0.193	*0.395	*0.471	0.163	—	
Organizational policy	*0.283	0.140	-0.095	0.125	0.048	0.019	0.211	0.036	*0.357	*0.263	—
Job security	*0.403	*0.352	0.028	0.119	*0.338	0.182	*0.393	*0.274	*0.324	*0.392	0.180

*Correlation coefficient significant at $p<0.05$

RESULTS

Of the 58 MPWs included in this study, 15.5% were male and 84.5% were females. All the respondents were married. The mean age of the group was 39.2 (SD=9.33) years. Nineteen percent of the respondents were younger than 30 years, 36.2% were 30-40 years old, and 44.8% were aged above 40 years. The age distributions of MPWs in hilly and non-hilly region were similar.

Tables 1 and 2 depict the mean scores of perceived importance for the motivational and hygiene factors among the study MPWs, and their perceived job satisfaction, respectively. The mean score for perceived importance of the motivational and hygiene factors in their work place was 4.32 (SD=0.46), whereas the overall average score for job satisfaction for these factors was 3.24 (SD=0.39). This difference is highly significant (p-value =0.0001). It was observed that the mean scores were more than 4 for all the aspects of motivation in hilly as well as non-hilly areas. The perception regarding importance of motivational factors was not significantly different among workers of both areas. The mean score for each aspect of job satisfaction ranged from 2.17 for 'career advancement' to 3.84 for 'social recognition.' Although the overall perceived satisfaction for the presence of motivation and hygiene factors in their job were same for hilly and non-hilly MPWs, there was a significant difference in their

Table 4
Perceived satisfaction scores for motivational and hygiene factors based on length of service of MPWs.

Length of service (years)	Mean motivation and hygiene scores (SD)			*p*-value
	Total Mean (SD)	Hilly area Mean (SD)	Non-hilly area Mean (SD)	
0-10	3.12 (0.31)	3.06 (0.39)	3.18 (0.24)	0.42
> 10	3.34 (0.41)	3.27 (0.5)	3.38 (0.31)	0.45
p-value	0.02	0.27	0.05	

Table 5
Perceived satisfaction scores for motivational and hygiene factors combines and isolation of MPWs.

Type of motivation	Perceived satisfaction score			*p*-value
	Total Mean (SD)	Hilly area Mean (SD)	Non-hilly area Mean (SD)	
Motivational and hygienic factors	3.24 (0.39)	3.19 (0.48)	3.29 (0.29)	0.33
Motivational factors	3.21 (0.43)	3.08 (0.38)	3.31 (0.44)	0.04
Hygienic factors	3.28 (0.45)	3.16 (0.33)	3.38 (0.51)	0.06
p-value	0.39	0.42	0.55	

perceived satisfaction for hygiene factor 'policy.' Perceived satisfaction for factors like 'career advancement' was given low scores by 90% of participants. Similarly, 78% of MPWs gave low scores to 'salary,' 71% considered 'working condition' to be a reason for dissatisfaction and 59% were not satisfied with the 'achievement prospects' in their job. The correlation between different factors was significant (Table 3). These results suggest that satisfaction was not independent of the individual job aspect.

The mean score for perceived job satisfaction for all the age groups in both hilly and non-hilly area ranged from 3 to 4. There was no significant difference between the MPWs of hilly and non-hilly areas, and also between different age groups.

There was a significantly higher level of job satisfaction among those MPWs who had service experience 'more than 10 years' compared to those who had 'less than 10 years' (Table 4). However, no significant difference was found for the same between MPWs working in hilly and non-hilly areas.

The mean scores of perceived satisfaction for motivation and hygiene factors computed independently (Table 5) showed that although the perceived satisfaction for hygiene factors were similar in hilly and non-hilly MPWs, however they significantly differed in their view on motivational factors. For MPWs

working in hilly areas, the motivational factors were found to be lower compared to their counterparts in non-hilly areas. This indicates that MPWs working at hilly area are less motivated than MPWs of non-hilly area but both of them are not dissatisfied.

Analysis of qualitative data obtained through in-depth interview and FGD indicated important themes considered by the participants to be motivating for their work performance. Moreover, the major factors that create a sense of dissatisfaction among the health worker also emerged from the analysis. These factors influencing health workers' interest to perform included: 'work environment' (facility, peer relations, place of work, day-to-day supervision, multiple job responsibility, and considerable work load), 'career development' (career opportunity and growth, continuous professional development, and capacity building), 'community prestige' (social recognition and community respect), 'organizational policy' (transfer rules and norms, performance appraisal system, and job security), 'salary and allowances' (incentives and salary). However, no single factor was considered as the sole driver of motivation; participants were of the view that all these factors are relevant and account more-or-less for motivation. Dissatisfiers included lack of clear cut administrative policy, uniformity of rules, and transparency of system. It was felt by all that the system needs to be more responsive to the health workers' needs. Belongingness to local community was mentioned by some of the participants as a contributory factor to work interest. 'Salary' was not the only important element in job satisfaction; promotion opportunities and satisfaction with current work assignments were also perceived as being important.

DISCUSSION

This study was the first of its kind to explore health workers' motivation and perceived satisfaction in rural Chhattisgarh. The majority of study participants were females, which can be explained in that, out of 4,776 sub-centers in the state, 2,531 sub-centers are not manned by MPWs(male)(MOHFW, 2010).

The findings of our study indicated that the proportion of MPWs who were indifferent (neither satisfied nor dissatisfied) with their job was more than the proportion of those who were dissatisfied. Health workers were found to be dissatisfied with a few aspects of their jobs. The importance of motivational factors in job environment was perceived high among all studied MPWs irrespective of service location. Furthermore, contextual analysis of various job characteristics, such as motivational factors, suggested several salient points. Contrary to common perceptions, all hilly and non-hilly MPWs rated motivating factors such as 'career advancement and achievement,' 'good working condition,' and 'social recognition' as more important than income. This was illustrated with a comment made by one respondent: 'money is essential for life; however, growth and achievement are also necessary.' Possibly, the respondents did not want to appear money minded, and so they did not report remuneration as a higher motivating factor. It may also be that those workers for whom salary is most important were absent from work in order to pursue other sources of income, particularly in public sector. Alternatively, a public health worker's income may have been comparable to what they could earn in the private sector, and this influenced their expectations. Nonetheless, the prominence of non-financial motivating factors

made it difficult to assume that better salaries alone would significantly improve health worker motivation irrespective of their geographic location. These findings are congruent with similar studies conducted in India and Africa (Manongi *et al*, 2006; Mathauer and Imhoff, 2006; Peters *et al*, 2010).

The average job satisfaction score among the MPWs was between 3 to 4, which indicates that most of the studied MPWs were not satisfied with their existing job condition. There was a significant difference between perceived importance of job characteristics and perceived satisfaction for these factors. This suggests the low presence of motivating factors that determine job satisfaction. Conversely, hygiene factors, namely 'salary' and 'working condition' were found to have low scores compared to other factors. This indicated that the MPWs were not satisfied with their current salary and existing work environment. Moreover, a lack of additional income and incentives was also a contributing factor to lack of satisfaction. One of the respondents said: "nowadays, only salary is not enough."

Hilly MPWs differed significantly from non-hilly in their perspective of existing organizational policy. One participant said: "government is not concerned about us." This suggested that the workers in hilly area were not satisfied with the existing rules and norms of health worker job administration. They were also dissatisfied with the government's transfer policies and practices. As has been suggested,

> Public sector efforts to recruit and retain health workers in rural posts are also compromised by institutional factors such as changes in service rules; recruitment delays; and the lack of transparency in identifying vacancies, promotions, and transfers (Rao *et al*, 2011).

Organizational policies and procedures have a profound effect on how staff perceives the quality of work life, and in creating a motivating and satisfying work environment (Krueger *et al*, 2002).

The perception of satisfaction was higher among MPWs who had served for more than 10 years. This difference was statistically significant for MPWs as a whole and for non-hilly areas, but not significant for hilly areas. It could be due to the fact that the expectations of the health workers in non hilly area positively change with their length of service. Moreover, this might be because they have settled themselves, as one MPW said: "now that we are settled here, this is our community and our responsibility." However, the same could not have been said for MPWs in hilly areas. This was possibly due to the characteristic difficulties of the workers in hilly areas.

According to Herzberg (2003), job satisfaction and job dissatisfaction are not opposites and are influenced by motivating and hygiene factors. Motivating factors include "achievement, recognition for achievement, the work itself, responsibility, and growth or advancement" and lead to job satisfaction. Their absence leads to lack of job satisfaction. Dissatisfiers or hygiene factors include "company policy and administration, supervision, interpersonal relationships, working conditions, salary, status, and security" (Herzberg, 2003) and determine the level of job dissatisfaction. Herzberg (2003) found that many of the dissatisfiers had a small effect on job satisfaction, *eg*, supervision; likewise, some motivating factors reduced job dissatisfaction to some

extent, *eg*, achievement. Therefore, before venturing into any human resource planning it is prudent to clarify whether the problem being addressed is mainly one of job satisfaction or one of job dissatisfaction, and then to select the appropriate strategies.

The present study explored various job characteristics that motivate a health worker to perform and also highlighted the possible reasons for dissatisfaction among health workers. It is an established notion that a satisfied and motivated health work force is crucial for achieving the health system goals. Current strategies mostly focus on providing incentives and payment and improving working conditions, often with the expectation to improve performance. However, the present study has suggested that although financial incentives are important, they are not sufficient to motivate personnel to perform better. To improve motivation and thereby increase staff performance, emphasis should be given to motivating factors. Further, attention should also be paid to incentives that focus on showing appreciation and respect. This can be achieved through performance management that includes supervision, training, performance appraisal, and career development. For example, attending to salary levels and working conditions will primarily reduce job dissatisfaction and therefore increase staff retention. Similarly, to improve staff performance strategies should focus on increasing the individual's sense of achievement and to demonstrate recognition of that achievement.

The present study was a preliminary attempt to understand the motivation and job satisfaction levels among multipurpose health workers in Chhattisgarh. The findings of the study provided insights that could be used for improving human resource performance in the health sector. However, more such research studies need to be undertaken among MPWs in other states too. Moreover, studies pertaining to motivation and job satisfaction among other cadres of health workforce would provide a holistic perspective.

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