

# Level of Motivation Amongst Health Personnel Working in A Tertiary Care Government Hospital of New Delhi, India

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## ABSTRACT

**Aims:** To assess the level and factors of motivation amongst permanent government employees working in a tertiary health care institution. **Material and Methods:** A sample of 200 health personnel (50 in each category) i.e. doctors, nurses, technician, and support staff were contacted through face to face interview. Motivation was measured as the degree to which an individual possessed various identified motivation domains like Drive, Control, Challenge, Relationship and Rewards. Each domain was represented by 4 dimensions- accordingly a closed-ended statement represented each of these dimensions and responses were assessed on a Likert based scale. Data management was done using SPSS, ver. 19. **Results:** The average age for different health personnel were: Doctors 48.68 ( $\pm 8.53$ ), nurses 40.72 ( $\pm 7.76$ ), technician 38.4 ( $\pm 10.65$ ) and support staff 43.24 ( $\pm 9.52$ ) years. The average year of work experience was: Doctor 19.09 ( $\pm 9.77$ ), nurses 17.2 ( $\pm 8.420$ ), technician 14.84 ( $\pm 10.45$ ), support staff 18.24 ( $\pm 10.28$ ). A comparison of overall motivation index (mean score) revealed that nurse had highest level (3.47), followed by support staff (3.46), doctor (3.45) and technician (3.43). Based on their individual mean scores, the healthcare providers were categorised into three different levels of motivation and it was found that majority of the health personnel i.e. 70% of support staff, 62% nurse, 56% doctor and technician, had high to very high level of motivation index. The mean scores for all the five factors as well as their respective ranks were also found out and it was deduced that “relationship” assumed first rank for doctors (mean score: 3.71) and technician (mean score: 3.75), whereas “control” assumed greatest significance for nurses (mean score, 3.62) and support staff (mean scores, 3.61). Based upon the mean scores, “reward” assumed third rank among all the four categories. Kruskal-Wallis test was applied to test if the different categories of health personnel varied with respect to five factors of motivation and it was found that their orientation towards the various motivational components differed significantly only with respect to Drive ( $P < 0.01$ ). **Conclusion:** There is scope for enhancing staff motivation.

**Keywords:** Challenge, control, doctor, drive, motivation, relationship, reward

## Introduction

Health industry is labor intensive, wherein quality of services is ultimately linked to productivity, skills,

motivation, and satisfaction of the healthcare providers. Under increased societal demand for effective healthcare services, it has become a challenge for hospital administrator to motivate employees and at the same time fulfill the expectations of patients. Research has well highlighted the importance of effective human resource policies for improving the performance of the health system.<sup>(1)</sup> Motivation is the key to successful achievement of personal and/or organizational goals. This is also a fact that one cannot directly motivate others; however, working environment still can be created wherein people themselves feel motivated.

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The motivational behavior of employees could be explained in the light of content, process, and reinforcement theories. The content theory of motivation focuses on “what” motivates a person. The process theory looks at the entire process of motivation and focuses on “how” a person is motivated and centered around the rational cognitive process and argues that the importance and placement of similar needs is different for every individual with an inbuilt element of high subjectivity.<sup>(2)</sup> The reinforcement theory emphasizes the fact that a person’s current behavior is influenced by past actions. Bennett and Franco (1999)<sup>(3)</sup> found that motivation is influenced not only by specific incentive schemes targeted at workers, but also by the whole range of health sector reforms which potentially affect organizational culture, reporting structures, channels of accountability, etc. Petcharak (2002)<sup>(4)</sup> observed various factors responsible for work motivation and in the order of preference, motivation variables noted were salary, job security, interesting job, working environment, and professional relation with coworkers. Fashakin *et al.*, (2007)<sup>(5)</sup> observed strong links between organization activities and the external consequences of such activities for employee motivation.

Human resources represent most expensive of three principal health system inputs as they consume almost 60% of the total budget, the other two being physical capital and consumables. A number of studies have been conducted in order to explore factors of motivation and their relation with job satisfaction in non-health sector and more so at international platform. Studies on this subject matter remain scanty in the Indian settings where shortage of health manpower and high burden of the disease are prevalent. Keeping this back ground a cross-sectional study was undertaken to determine motivation of the health personnel and explore different motivational variables amongst permanent employees working in a government tertiary health care institution of New Delhi, India.

## Materials and Methods

### Setting

Dr. Ram Manohar Lohia Hospital, formerly known as Willingdon Hospital, was established by the British for their staff and had only 54 beds. After independence, its control was shifted to New Delhi Municipal Committee. In 1954, its control was again transferred to the Central Government of Independent India. Currently, hospital caters to an average daily outpatient attendance of 5,236 patients and annual admission of 60,568 supported by 1,065 beds and managed by 2,270 permanent government employees (doctors-192, nurses-1025, technician-376, and support staff-677).

### Sample size and sampling

Assuming a difference of 1 unit in the mean motivational score to be significant, the minimum sample size in each group, that is, doctor, nurses, technician and support staff was found to be 46 respondents assuming 90% power and 5% level of significance. For simplicity, it was than rounded off to 50. The formula considered for sample size calculation was:

$$N = 2/d^2 * C_{\alpha, power}$$

N = Sample size

d = Standardized difference = target difference/standard deviation (SD) of target difference

$C_{\alpha, power}$  = tabulated value for  $\alpha$  % level of significance at any specific power

A total of 200 healthcare providers 50 in each category, that is, doctors, nurses, technician, and support staff were covered using systematic random method from the universe. Only permanent government employees were included in the study thus excluding residents/temporary/contract/daily wagger employed by hospital. Face-to-face interview was carried out by a single medical researcher during the period August–September 2011. Study instrument was pretested on eight subjects not included in the study for clarity, comprehension, and flow of questions. Hundred percent response rates was observed from the study participants that could be attributed to participants being informed well in advance of the purpose, confidentiality and objectives of the study thus making it easier to ensure cooperation.

### Study instrument

It consisted of two parts namely, Part-A (personal profile of respondent) and Part-B (components of motivation) [Table 1]. For operational purpose, motivational questionnaire as used by Smith (2004)<sup>(6)</sup> was adapted in this study. Motivation was measured as the degree to which an individual possessed identified five motivation domains like Drive, Control, Challenge, Relationship, and Rewards. Internal consistency of the scales was assessed by Cronbach’s alpha and found to be adequate: 0.79 for the actual scale.

### Statistical analysis

Each domain was represented by four dimensions; accordingly a closed-ended statement represented each of these dimensions. The responses were assessed on a Likert based scale, namely strongly agree, agree, disagree, and strongly disagree with corresponding score weightage of 4, 3, 2, and 1, respectively. Motivational index was worked out with following formula, motivational index =  $\sum$  Mean score ((drive) + (control) + (challenge) + (relationship) + (reward))/5. To assess the level of motivation, the respondents were grouped into three classes namely, low (2.70-3.20), moderate (3.20-3.45), and high (3.45-3.95). The

class intervals were derived based upon the minimum and maximum scores of the motivational index of respective individuals. Further, Kruskal-Wallis test was applied to test if the different categories of staff varied with respect to the five factors of motivation. Data management was done using Microsoft Excel sheet and statistical package (SPSS, ver. 19).

## Results

### Socio-personal profile of respondents

The average age of doctors, nurses, technician and support staff was 48.68 ( $\pm 8.53$ ), 40.72 ( $\pm 7.76$ ), 38.4 ( $\pm 10.65$ ) and 43.24 ( $\pm 9.52$ ) years, respectively. The sex ratio was extremely skewed in favor of males in case of technician (90:10) and support staff (88:12). It was relatively less skewed in favor of male (58:42) in case of doctors. However, nurse category with reversely skewed sex ratio showed female preponderance (2:98). Nearly 80% of doctors were postgraduate, 96% of nurses had general

nursing midwifery qualification; 50% of technicians were graduates and 52% of support staff had education of at least 10<sup>th</sup> standard. The average years of work experience for doctors, nurses, technician, and support staff was 19.09 ( $\pm 9.77$ ), 17.2 ( $\pm 8.420$ ), 14.84 ( $\pm 10.45$ ), and 18.24 ( $\pm 10.28$ ), respectively. The health staff in each category did not differ significantly in above parameters.

### Degree and dimension of motivation

The mean scores for all the five factors as well as their respective ranks are presented in [Table 2]. It is deduced that "relationship" assumed first rank for doctors (mean score: 3.71) and technician (mean score: 3.75). This finding is based on their endorsement pattern which reflected that nearly two-third of doctors felt comfortable in sharing work as a part of team, while three-fourth of them felt that keeping good relationship with superior and junior motivated them; 70% of them said that relation with patients and fulfilling their legitimate demands

**Table 1: Study instrument**

Domain	Dimensions	Description of each dimension
Drive	Activity	Assessed how far being busy all the time motivates any one
	Achievement	Measured whether testing, demanding, and challenging work motivates a person
	Competition	Considered whether a person thrives in a competitive environment
	Fear of failure	Indicated whether one feels motivated or demotivated by the possibility of poor performance in front of other people
Control	Power	Assessed how far power over other people is important to a person
	Recognition	Measured whether the presence or absence of feedback and recognition for one's personal contribution affects his/her motivation
	Status	Considered whether one's position, standing, and grade are important for him/her
	Ethics	Indicated whether one is motivated or demotivated by having to follow a code of professional and ethical standards
Challenge	Interest	Assessed how far it is important to be able to do interesting and varied work and express one's creativity
	Flexibility	Looked at whether flexible supervisor and working conditions are important
	Progression	Measured whether the presence or absence of opportunities for promotion and advancement affects one's motivation
	Pressure	Indicated whether one thrives on or performs poorly when there is pressure and stress
Relationships	Teamwork	Assessed whether one prefers to work alone or as part of a team
	Management	Looked into the dimension whether an individual enjoys managing people
	Customers	Measured whether the presence or absence of customer contact affects one's motivation
	Business	Indicated the inclination for working or not working in the organization
Rewards	Remuneration	Assessed how far money is important to an individual
	Job Security	Assessed the importance of job security
	Autonomy	Measured whether freedom and discretion motivates a person
	Growth	Indicated whether one values the opportunity to acquire new knowledge and skills

**Table 2: Ranking of motivation based on mean score**

Components of motivation	Doctor (n = 50)		Nurse (n = 50)		Technician (n = 50)		Support staff (n = 50)	
	Mean score	Rank	Mean score	Rank	Mean score	Rank	Mean score	Rank
Drive	3.16 (0.416)	V	3.30 (0.374)	V	3.05 (0.471)	V	3.32 (0.357)	IV
Control	3.625 (0.426)	II	3.62 (0.447)	I	3.555 (0.392)	II	3.605 (0.375)	I
Challenge	3.275 (0.458)	IV	3.35 (0.368)	IV	3.255 (0.494)	IV	3.305 (0.347)	V
Relationship	3.71 (0.375)	I	3.595 (0.353)	II	3.745 (0.352)	I	3.595 (0.353)	II
Rewards	3.46 (0.389)	III	3.50 (0.348)	III	3.52 (0.504)	III	3.50 (0.348)	III
Motivation index	3.44		3.47		3.42		3.46	

\*The figures in the parentheses are standard deviation (SD)

made them motivated, while 86% believed that friendly and happy working atmosphere motivated them. The proportion of technician affirming to above statements was 44, 70, 80, and 68%, respectively.

For nurses (mean score, 3.62) and support staff (mean scores, 3.61) "control" assumed greatest significance followed by "relationship". The endorsement by the respective proportion of nurses to statements like feel motivated if you are given responsibility of work (70%); feel motivated if their skills, efforts, and competencies are recognized by their seniors and colleagues (74%); feel motivated if given status for a particular job in recognizing importance and seniority (62%), and feel motivated for working in accordance with ethical standards and personal principles (56%) reflect the elements of control (responsibility, recognition by seniors, status, and ethics) in their job performance. Similar is the trend among the support staff and the corresponding figures being 74, 56, 62, and 56% respectively. The support staff responded differently than the other categories of healthcare providers with respect to "challenge". Challenge assumed the least priority as a component of motivation for support staff which might be due to the routine mechanical nature of their job often lacking opportunities for new learning, risk-taking, and intellectually stimulating.

### Motivation index

A comparison of overall motivation index (mean score) revealed nurse had highest level (3.47), followed by support staff (3.46), doctors (3.45), and technician (3.43). Based on their individual mean scores, the healthcare providers were categorized into three different levels of motivation. A perusal of [Table 3] reflects that majority of healthcare providers had high motivation index. It is also observed from [Table 4] that they differed significantly only with respect to drive ( $P < 0.01$ ).

### Discussion

Among the various components of motivation, "relationship" assumed first rank followed by "control" as second among doctors and technicians. It could be due to direct and frequent interaction with the fellow colleagues and patients, besides sharing of work in a cordial manner. As a result, team work was promoted and relationship fostered. The organizational environment is largely responsible for influencing the motivation of its employees.<sup>(7,8)</sup> Having good working

relationship with coworkers as most motivating factor was also observed by another researcher whose study area was a private hospital of India.<sup>(9)</sup> "Control" assumed the first rank amongst motivational components for nurses and support staff followed by "relationship" at the second rank. The instant recognition and appreciation of the jobs carried out by the nurses and support staff by the patients/relatives and superiors could be the plausible reason for control being the main component of motivation for these groups.

With the development of society, workers mature from being controlled or directed to working in team especially lower level functionaries. This finding is supported by Stilwell who found that getting recognition and being valued for doing a job was motivating amongst nurses and midwife in Zimbabwe.<sup>(10)</sup> Mathauer and Imhoff found the same amongst doctors and nurses in Kenya and Benin.<sup>(11)</sup> Penn-Kekana *et al.*, (2005)<sup>(12)</sup> and King and Mcinerney (2007)<sup>(13)</sup> observed relationship as motivating amongst nurses in South Africa. "Feeling responsible" received a significantly higher score by physicians (average score 7.6) compared to nurses (average score 4.8) ( $P = 0.0025$ ), while "increase in salary" was significantly more motivating for auxiliary nurses and midwives (average score 4.6) as compared to physicians (average score 1.6) by Dieleman *et al.*, (2006)<sup>(14)</sup> and thus support our study findings.

According to Herzberg (1966),<sup>(15)</sup> 'recognition of work' is one of the very important satisfier or motivator. Singh (2008)<sup>(16)</sup> studied the motivational factors in tertiary level ophthalmic hospital Delhi, and found six motivational domains in order of merit as status, security, competence, achievement, affiliation, and power in different professional groups. Another study carried out in public and private sectors in Andhra Pradesh and Uttar Pradesh, showed that superior who recognized the work was important motivational factor in public sectors ( $P < 0.01$ ) especially in Uttar Pradesh. The finding also reported that 96% of the employee rated "good working relationships with colleagues" as important motivating variables.<sup>(17)</sup> This could largely be attributed to socio-cultural-political environment prevailing in our country.

Based upon the mean scores, "reward" assumed third rank amongst all the four categories. That reward promotes motivation has been reported by various other researchers also.<sup>(13,15,18-24)</sup> It is known that reward

**Table 3: Distribution of health staff according to motivational index**

Motivational index	Doctor N (%)	Nurse N (%)	Technician N (%)	Support staff N (%)	Total N (%)
Low (<3.20)	7 (14)	10 (20)	11 (22)	13 (26)	41 (20.5)
Moderate (3.20-3.45)	15 (30)	9 (18)	11 (22)	2 (4)	37 (18.5)
High (>3.45)	28 (56)	31 (62)	28 (56)	35 (70)	122 (61.0)

**Table 4: Kruskal-Wallis test for comparison of mean score**

Motivational factor	Mean score				P-value
	Doctor	Nurse	Technician	Support staff	
Drive	95.45	111.82	79.94	114.79	0.007
Control	104.39	103.92	93.88	99.81	0.766
Challenge	100.61	106.53	96.84	98.02	0.833
Relation	115.90	93.42	99.26	93.42	0.144
Reward	94.47	99.24	109.05	99.24	0.619

instills sense of satisfaction, but what is its hierarchy or degree in motivating the health worker may differ depending on various other factors. The routine and monotonous nature of work, poor flexibility, limited risk, less intellectual gratification, and less official pressure of works could be the reason for 'challenge' assuming lower rank as factor of motivation among the support staff. Perceiving work as interesting and challenging increases with qualification, was also reported by Nikic *et al.*, (2008).<sup>(25)</sup> They found that a large proportion (77.01%) of masters and doctors found their job as interesting and stimulating; whereas, the corresponding proportion was considerably lower in employees with up to secondary education. Willis-Shattuck *et al.*, conducted a systemic review on motivation and retention of health workers in developing countries and found that while motivational factors are undoubtedly country specific, financial incentives, career development, and management issues are core factors. Nevertheless, financial incentives alone are not enough to motivate health workers. It was also found that recognition is highly influential in health worker motivation and that adequate resources and appropriate infrastructure can improve morale significantly.<sup>(26)</sup>

There is a growing interest on this thematic topic in our country partly due to socioeconomic boom, enhanced manpower production, productivity, inter-country collaboration, extensive knowledge transfer, and travel, to name a few. However, subject area continues to be in infancy stage with negligible number of research publication output from India on this topic. There are some fundamental differences between health vs non-health sector and government vs private sector, still on operational parameters, it becomes imperative to introduce challenging work environment for health workforce in public sector. Drive in terms of activity, achievement, competition, and fear of failure is important motivation factor that can significantly improve work output and productivity. Brain storming sessions, counseling workshops, or reorientation training may possibly aid in enhancing motivation. The study though did not dwell upon the policy related issues, the hospital could incorporate some organizational development interventions including related administrative/intrinsic factors which may not require heavy financial investment.

## Limitations

The present cross-sectional study was conducted among health staff of one center only and hence cannot be put to generalization; probably a multicentric study could provide more insight. Also findings presented in this type of study is based upon purely subjective rating which was not externally validated and might be influenced by the respondents lack of knowledge with the subject matter. Lack of information on other variables like seniority level of employee, designation, income, qualification, and profession of spouse, can also be included to investigate their association with motivation.

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