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RESEARCH ARTICLE

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Assessment of motivation levels and associated factors among the nursing staff of tertiary-level government hospitals

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Summary

The present study assessed the motivation level of nurses working in 3 highly decorated tertiary-level government hospitals of India and also underpins the factors attributing to motivation levels. A sequential mixed-method design was used in this study wherein 400 nurses working in 5 units of nursing care in the hospitals were enrolled based upon proportionate random stratified sampling techniques. A self-administered questionnaire with Likert scale was developed based upon scale used by Mbindyo et al. The attributes of motivation were then categorized into external and internal attributes. For the qualitative component, participants with varied responses in quantitative data were selected and interviewed. Overall mean motivation score of the nursing staff was found 3.57 ± 0.93, which was higher for extrinsic motivational attributes (3.67 ± 0.88) as compared with intrinsic attributes (3.47 ± 0.98). The intrinsic motivational attribute of organizational commitment was rated highest followed by general motivation, conscientiousness, and self-efficacy. Personal issues, timeliness, and burnout were prime discouraging attributes among study participants. Sociodemographic characteristics and work profile characteristics showed significant relationship with the attributes of motivation. This study underscores the significance of different attributes of motivation which needs to be considered while framing administrative strategies and policy guidelines by authorities.

KEYWORDS

demotivation, government hospitals, health care, motivation, nursing staff

1 | INTRODUCTION

Health-care outcomes of a country depend upon the optimal functioning of human resources for health.[1] If we specifically focus on hospital setups, major human resource constitutes doctors, nurses, and medical technicians,[2] out of which nurses provide the maximum health-care services to patients.[3] World Health Organization predicted a shortfall of 2.4 million nurses in India.[4] As per Indian Nursing Council data, there are 17,80,006 registered nurses, which calculates to 1:1100 nurses to population ratio,[5] which is much less than World Health Organization guidelines of 1:500.[6] Further, the existing nurse to patient's ratio in hospitals is quite dismal at 1:20 to 30 as compared with the proposed norms of 1:4.[5] The figures are quite alarming because if the existing shortage of nursing staffs is not addressed, then health system performance is bound to doom.[2]

In such resource scare settings, the motivation level of existing staff is very crucial. Motivation can be defined as an individual's degree of willingness to exert and maintain effort toward attaining organization goal.[7] It is documented that well-motivated employees enjoy their professional responsibilities leading to better outputs. On the other hand, if the organization fails to motivate the employee, their performance lowers and, eventually, they give up leading to higher attrition rates.[8] The result of different motivational strategies by authorities on employees is never the same, because what motivates individual employee is as complex and diverse as humanity itself.[9,10]

Globally, few studies have been carried out exclusively focusing on motivation levels and responsible factors among nursing staff.[11-19] Studies from developing nations suggest that apart from personal financial factors,[12-16] non financial factors like training, fair work place environment, professional guidance and support, and professional opportunities also play a big role in their performance and retention.[13,15-19] At times, literature also supports that relationship with co-workers, performance appraisals, and sense of achievement were more critical than personal financial gains[20-22]of a nurse to get motivated.

In India, very few studies have been done to study motivation among nurses. Among the existing work, extrinsic factors like personal financial gains,[17] human resource policy of the organization, and career development opportunities[23]which are directly under organizations' control were motivating factors, whereas few studies have cited intrinsic factors which are under employees' control like parity with the co-workers, diligence, interest toward work, respect for the organization, and work culture cited as motivating factors.[24,25]

Merely 1 study has used a mixed-method approach to explore the motivational level and associated factors.[26] It is important to study motivation among nurses in North India because tertiary-level hospitals in this part of country cater huge population and motivation level of nurses is critical for hospital performance. Further, the existing comprehensive work on this topic in this part of country is very less to inform hospital administrators, policy makers, and implementers for framing evidence-based strategies for better hospital performance.[23,24] The present study comprehensively assessed the motivation level of nurses working in 3 highly decorated tertiary-level government hospitals and also underpins the factors attributing to motivation of nursing staff in a jurisdiction of northern India.

2 | METHODS

It was sequential mixed-method study, ie, after completing quantitative part; qualitative component was also used for thorough and extensive understanding of factors affecting motivation.

2.1 | Study area

The study was carried out in Union Territory of Chandigarh, which is located in northern part of India and has a population of around 1.1 million.[27] There are 3 tertiary-level public hospitals in Chandigarh which jointly caters to almost 5 million outpatients and 0.2 million inpatients per year from all parts of country. There are in total 2800 nurses working in these 3 tertiary-level hospitals.

The nurses working in intensive care units (ICUs), general wards, operation theaters, emergency units, and administration units of the above-mentioned 3 hospitals were enrolled. These 5 units constitute over 80% of the hospital area and are present in all 3 hospitals which induced homogeneity in the sample.

Ethical clearances and prior permissions were obtained from the heads of all 3 selected tertiary hospitals. After obtaining informed consent and explaining the need and objectives of the study, self-administrated questionnaire was handed over to the participants willing to fill it on the spot and return back to the investigator. They were also provided with an option to discontinue filling of questionnaire at any point of time of data collection. For qualitative data collection, in-depth interviews (IDIs) were completed on the time and place consented by the participants by using an interview guide. Once the interview was concluded, the responses were again read back to the participation for validation purpose.

The selected nurses from the 5 designated units of hospital which provided consent for participation were included. The nurses not present at the time of data collection and those who could not be contacted by researcher in 3 sincere attempts were excluded.

2.2 | Study tool

For quantitative assessment, a self-administered Likert Scale questionnaire was developed from the questionnaire used by Mbindyo et al[28] (adapted from Bennet et al[29]) to measure health worker motivation in district hospitals of Kenya. The questionnaire included 23 questions (from 8 underlying motivation constructs) related to motivational outcomes. A score of 1 and 5 represented "strongly disagree" and "strongly agree" for each question, respectively. For the mentioned attributing factors of motivation, a mean score "above 3" was considered motivated, whereas a score of "3 and below" was considered unmotivated. The attributes of motivation were then categorized into external and internal attributes.[30] A pilot study was conducted to adapt the scale in present setting. For qualitative assessment, IDI guide was developed in local language. The study investigator was trained in undertaking interviews prior to study.

2.3 | Sample size

For quantitative component, a minimum sample size of 384 nurses was calculated with 95% confidence interval and absolute error of 5%, based upon motivation level among nurses as 60% (from a previous study in North Indian region[24]). For the qualitative component, participants with varied responses in quantitative data were selected. Interview was carried till saturation level of responses.

Stratified random sampling technique was used, and proportionate number of nurses was enrolled from each of the 5 units of the 3 designated hospitals. In each selected unit, the required number of nurses for the study was chosen randomly from their attendance register. This procedure was repeated in all the 3 shifts of duty, ie, morning, evening, and night to get the necessary number of nurses for our study.

2.4 | Data analysis

The data were entered in Microsoft Excel 2007 and were analyzed in SPSS-20. Descriptive statistics, including mean, standard deviation, range for continuous data, and proportions for categorical data, was used to characterize the study population. For the assessment of the motivation levels, the scores obtained from the participating nurses

for 8 variables under study were added and mean score was calculated. ANOVA and *t* test were applied for estimating significant association between variable's means. Data were categorized, and logistic regression model was applied. *P* value of less than .05 was considered statistically significant. The findings were reported according to Strengthening the Reporting of Observational Studies in Epidemiology guidelines.[31]

For qualitative assessment, content analysis of the recorded response was performed manually by the principal author of study.[32] It was then reviewed by the supervisor guide (second author) to reduce bias and interpretive credibility. The coding and theme generation were conducted by using standardized procedures.[33] The findings were reported as per the norms of the qualitative research, ie, "Consolidated Criteria for Reporting Qualitative Research" guidelines.[34]

3 | RESULTS

3.1 | Quantitative results:

Table 1 shows the sociodemographic characteristics of the participants in the study. Of total 430 nurses selected for the study, 400 returned the questionnaire which constitutes a response rate of 93.0%. Of the total respondents, 90.2% (N = 361) were women and 79.7% (*N* = 319) were married. Around 82% (N = 328) of participants were resident from Chandigarh, Himachal Pradesh, and Punjab, and most of them (72.5%; N = 290) were from urban

TABLE 1 Sociodemographic characteristics of the participants in the study

Variable	N (400)	Frequency (%)
Gender		
Male	39	9.7
Female	361	90.2
Age (in years)		
0-35	228	57
35-50	154	38.5
50+	18	4.5
Marital status		
Married	319	79.7
Unmarried	81	20.2
Residence		
Chandigarh	98	24.5
Punjab	145	36.2
HP	85	21.2
Other	72	18
Education		
GNM	232	58
Bsc nursing	143	35.7
Post basic	18	4.5
Msc	3	0.7
Other	4	1
Native		
Urban	290	72.5
Rural	110	27.5

background. More than half of the participants (57%; N = 228) were below the age of 35 years. Maximum share of participants had perused only diploma in nursing (58%; 232), while around 6.2% (N = 25) have perused post graduation.

Most (87.7%) were permanent employees in their respective health facility, 59.2% (N = 237) have received prior refresher training, 56% (N = 226) received salary between INR 35,000 and 50,000, and around 42% (N = 168) had work experience of over 10 years (Table 2).

Table 3 shows question wise mean score of various motivational attributes among the study participants. The overall mean motivational score of the participating nurses was 3.57 ± 0.9. The mean score for external motivation factors was 3.67 ± 0.88, which was higher than internal motivation factor score (3.47 ± 0.98). The intrinsic motivational attribute of organizational commitment was rated highest (4.03 ± 0.83) followed by general motivation

TABLE 2 Work profile of participants in study

Variable	N (400)	Frequency (%)
Health Facility		
GMSH (Institute 1)	60	15
GMCH (Institute 2)	140	35
PGIMER (Institute 3)	200	50
Type of employment		
Permanent	351	87.7
Temporary	49	12.2
Position		
Supervisors	78	19.5
Nursing officers	322	80.5
Duration of service (in months)		
0-60	159	39.7
61-120	83	20.7
121-240	135	33.7
241-360	30	7.5
360+	3	0.7
Monthly salary (in Indian rupees)		
0-35,000	120	30
35,001-50,000	224	56
50,001+	56	14
Current working hours/shift		
Morning	136	34
Evening	133	33.2
Night	131	32.7
Unit of care		
ICU	80	20
OT	80	20
Ward	81	20.2
Emergency/trauma	81	20.2
Administration	78	19.5
Any specific training		
Yes	237	59.2
No	163	40.7

TABLE 3 Mean score of items attributing to motivational factors among study participants

Factors	Description of Question	Mean ± SD
General motivation	I feel motivated to work hard	4.20 ± 1.05
	I do this job to get paid	3.79 ± 1.17
	I do this job as it provides long-term security for me	3.79 ± 1.08
	Subtotal mean score	3.92 ± 0.80
Burnout	I feel emotionally drained at the end of the day	3.21 ± 1.07
	Sometimes when I get up in the morning, I dread having to face another day at work	2.93 ± 1.16
	Subtotal mean score	3.07 ± 0.93
Job satisfaction	I am satisfied with my supervisor	3.76 ± 1.20
	I am satisfied with my colleagues in my work	3.93 ± 1.06
	Overall, I am very satisfied with my job	3.89 ± 1.01
	Subtotal mean score	3.86 ± 0.82
Intrinsic job satisfaction	I am satisfied with the health services being provided by me	3.94 ± 1.02
	I feel that the services being provided by me are essential	3.39 ± 1.24
	I get ample opportunities for career and skill development	4.22 ± 1.06
	Subtotal mean score	3.85 ± 0.78
Organization commitment	I am proud to be working for this health facility	4.26 ± 1.05
	I feel very committed to this health facility	3.93 ± 1.12
	This health facility really inspires me to do my very best on the job	3.91 ± 1.14
	Subtotal mean score	4.03 ± 0.83
Conscientiousness and self-efficacy	I can rely on my colleagues at work	3.73 ± 0.97
	I always complete my tasks efficiently and correctly	3.98 ± 0.99
	I do things that need doing without being asked or told	3.95 ± 0.93
	Subtotal mean score	3.88 ± 0.73
Timeliness	I am punctual about coming to work	4.45 ± 1.04
	I am often absent from work	1.99 ± 1.51
	It is not a problem if I sometimes come late for work/on leave	2.56 ± 1.54
	Subtotal mean score	3.00 ± 0.79
Personal issues	I suffer from health related problems due to the work profile	2.90 ± 1.23
	I feel difficulty in doing few activities regarding to my duty	3.08 ± 1.22
	My work affects my duties toward my family	2.84 ± 1.27
	Subtotal mean score	2.94 ± 0.88

Total mean score 3.57 ± 0.93.

(3.92 ± 0.80), conscientiousness, and self-efficacy (3.88 ± 0.73). Personal issues (2.94 ± 0.88), timeliness (3.00 ± 0.79), and burnout (3.07 ± 0.93) were prime discouraging attributes among study participants.

We compared the mean score of motivation factors among participants working at the 3 tertiary care hospitals/institutes in the study. Participants in Institute 2 were primarily demotivated due to personal issue, timeliness, and burnout, whereas motivational factors were organizational commitment, intrinsic job satisfaction, conscientiousness and self-efficacy, and job satisfaction. For Institute 1, attributes of de-motivation were personal issues and burnout, whereas general motivation, organizational commitment, and intrinsic job satisfaction were the main motivating factors. In Institute 3, the participants felt motivated due to organizational commitment, job satisfaction, and conscientiousness and self-efficacy, whereas timeliness discouraged them the most. The overall motivation score was highest in Institute 3 (4.0 ± 0.7) followed by Institute 2 (3.8 ± 0.7) and Institute 1(3.6 ± 1.1).

On comparing the mean score of motivation among the attributes for motivation in the 5 selected units of hospitals, general motivation was significantly higher in staff working at OTs (mean = 4.15 ± 0.70). Participants working in emergency had the highest overall job satisfaction (4.05 ± 0.74), while intrinsic job satisfaction was highest (4.05 ± 0.61) in administration unit. Personal issues were significantly demotivating for participants at OTs (mean = 2.80 ± 0.88) followed by ICU (mean = 2.81 ± 0.93) and emergency (mean = 2.96 ± 0.89). When gender wise

mean motivation scores of various attributing factors were compared, there was no statistically significant difference in mean score for various factors. When compared for professional positions, burnout (mean = 3.01 ± 0.96) and personal issues (mean = 2.92 ± 0.77) were more in nursing officers as compared with supervisors. Similarly, intrinsic job satisfaction (mean = 4.01 ± 0.60) was higher among supervisors than nursing officer. The participants who have undergone specific trainings had significantly higher mean scores of general motivation, job satisfaction, organizational commitment, and lower burnouts. An association between duty shifts of nursing staff with mean motivation score of various attributing factors was also analyzed. Factors like personal issues, organizational commitment, intrinsic job satisfaction, and burnout showed statistical significant association with shift of work (P value < .005). Personal issue was a demotivational factor for nurses working in evening (mean = 2.82 ± 0.86) and day shift (mean = 2.98 ± 0.92) as compared with night shift. Similarly, nurses working in night shift showed high mean scores for organizational commitment (mean = 4.13 ± 0.64) and intrinsic job satisfaction (mean = 4.01 ± 0.69). Burnout was more during night shift (mean = 3.04 ± 0.81). Personal issues were demotivating factor for nurses over 50 years, whereas organizational commitment, intrinsic job satisfaction, and general motivation score were significantly higher in the 50+-year age group.

The logistic regression model revealed that participants of Institute 3 had almost 2 times lesser personal issues (OR = 2.1; CI = 1.2-3.3) as compared with those of Institute 1. Similarly, nurses working at evening shift have more personal issues (OR = 0.3; CI = 0.4-1.3) than those working in morning shift. The odds of having better conscientiousness issues and self-efficacy were 5 and 11 times more in Institute 2 (OR = 5.8; CI = 0.1-2.3) and Institute 3 (OR = 11.7; CI = 0.2-2.4) respectively as compared with Institute 1. Participants who had undergone any refresher trainings showed better conscientiousness and self-efficacy (OR = 1.4, CI = 0.2-1.2) than those who have not attended any such sessions. Odds of organizational commitment were 5 times more at Institute 2 (OR = 5.7; CI = 0.1-0.3) and 3 times more at Institute 3 (OR = 3.0; CI = 0.6-1.2) when compared with Institute 1. Intrinsic job satisfaction was 8 times and 6 times higher among nurses in Institute 2 (OR = 8.0; CI = 0.8-2.2) and Institute 3 (OR = 6.5; CI = 0.4-2.9) respectively as compared with Institute 1. The odds of job satisfaction were 6 and 3 times higher at Institute 2 (OR = 6.0; CI = 2.1-4.9) and Institute 3 (OR = 3.3; CI = 1.3-3.9) when compared with those at Institute 1. As compared with ICU, odds for job satisfaction was 1.9 times higher in ward (OR = 1.9; CI = 0.1-1.3) and 1.4 times in administration (OR = 1.4; CI = 0.4-2.0), respectively. Burnout was more among nurses working in Institute 1 as compared with Institute 2 (OR = 1.6; CI = 0.9-2.3) and Institute 3 (OR = 3.6; CI = 1.1-3.3). Odds for burnout (OR = 1.4;CI = 0.2-0.8) were 1.4 times more in participants with no refresher training as compared with those with refresher trainings. Moreover burnout (OR = 0.8; CI = 0.2-0.6) in participants positioned as staff is more compared with their supervisors. Odds for general motivation were 9 times higher at Institute 3 (OR = 9.3; CI = 1.4-2.2) and 4 times higher at Institute 2 (OR = 4.1; CI = 2.2-3.8) as compared with Institute 1. Compared with ICU, odds of general motivation was 1.8 times higher in operation theater (OR = 1.8; CI = 0.3-0.1) and general wards (OR = 1.8; CI = 0.8-1.6), respectively (Table 4).

3.2 | Qualitative results

The results have been summarized under the broad heads of motivating and demotivating factors. These factors were further classified into extrinsic and intrinsic factors.

3.3 | Motivating factors

High salary: The participants showed a bend toward higher salaries, which was 1 of the reasons for joining nursing care as a profession as well as for switching over to other health facility.

"Workload at Institute 3 is more but because they pay well I want to shift there if given opportunity."

"After perusing nursing graduation we can join a hospital and get good salary which keeps on increasing with work experience."

TABLE 4 *Determinants of motivation among participant using logistic regression model

Variable			*P* Value	95% CI	OR
Personal issues	Health facility	Institute 1	1		1
		Institute 3	0.00	1.21-3.31	2.1
	Duty shift	Day	1		1
		Evening	0.03	0.43-1.38	0.3
Conscientiousness and self-efficacy	Health facility	Institute 1	1		1
		Institute 2	0.00	0.11-2.31	5.8
		Institute 3	0.00	0.23-2.45	11.7
	Training	Yes	1		1
		No	0.04	0.29-1.23	0.7
Organization commitment	Health facility	Institute 1	1		1
		Institute 2	0.04	0.11-0.30	5.7
		Institute 3	0.01	0.64-1.27	3.0
Intrinsic job satisfaction	Health facility	Institute 1	1		
		Institute 2	0.00	0.88-2.23	8.0
		Institute 3	0.00	0.44-2.98	6.5
Job satisfaction	Health facility	Institute 1	1		1
		Institute 2	0.00	2.10-4.92	6.0
		Institute 3	0.01	1.13-3.95	3.3
	Unit of care	ICU	1		1
		Ward	0.03	0.10-1.33	1.9
		Administration	0.04	0.44-2.03	1.4
Burnout	Health facility	Institute 1	1		1
		Institute 2	0.00	0.93-2.38	1.6
		Institute 3	0.00	1.10-3.33	3.6
	Training no		1		1
		Yes	0.01	0.29-0.88	1.4
	Position	supervisors	1		1
		Nursing officer	0.01	0.24-0.67	0.8
General motivation	Health facility	Institute 1	1		1
		Institute 2	0.00	2.20-3.80	4.1
		Institute 3	0.00	1.45-2.21	9.2
	Unit of care	ICU	1		1
		OT	0.03	0.39-0.13	1.8
		Ward	0.04	0.80-1.64	1.8

*Only those determinants are shown which showed statistically significant odds.

Respect: The participants were happy to be a part of health-care sector due to the respect they earn in society as a health-care provider.

"Whenever a patient is discharged with good health, his/her blessing sooths us the most. We are treated with a sense of respect in family and friends because of our profession."

Teamwork: The participants admired the teamwork within hospitals. It encourages them to perform well in health facility and their personal life.

"At times salary and allowance is not the only driving force. In our work, we need to coordinate well with each other and this leads to a family bondage between us, which helps us to perform well."

Humanitarian: The participants believed that they were serving the humanity by their work and felt good about their accomplishments.

"I believe I am paying my debt back to society by working as a nurse."

3.4 | Demotivating factors

Hierarchy: Hierarchy in the health system often demotivates them.

"Many a times, a newly recruited doctor argues with a senior nursing superintendent with years of experience just to show his superiority."

"At times, the patient gives priority to a junior doctor than a senior nurse for seeking advice."

Safety issues: The participants working at all the centers were concerned about their security specially those working at emergency units.

"We have to face wrath from relatives of patients who are serious or die despite our best efforts, which disheartens us."

Logistics: The shortage of essential items in hospital hinders their work and often demotivates them.

4 | DISCUSSION

Motivation level of health-care providers plays a key role in rendering quality health services, so it is essential to address factors affecting motivation level before designing effective and efficient human resource management strategies and policy framework.[2] In our present study, the overall mean motivation score for the nurses working in tertiary-level hospitals of Chandigarh was found to be 3.57 ± 0.93 on a scale of 0 to 5.

The score for extrinsic factors was higher as compared with intrinsic factors. Similar outcomes were concluded from the work of Sacks E et al,[13] Kumar et al,[15] Bodur S et al,[18] and Munyewende et al[35] who concluded that extrinsic factors like financial gains, career-enhancing opportunity like promotions and trainings, work place deliverables like timeliness, and management strategies play an important role in motivating employees toward their roles and responsibilities. On the other hand, few studies have shown that interpersonal factors like respect, appreciation, stress, work satisfaction, and family problems often counted as intrinsic motivational factors are more valuable to employees.[20,22,24,36,37] Although participants in our study have shown a higher mean score for extrinsic motivational factors, the score for intrinsic factor was also substantial, which meant that both extrinsic and intrinsic domains should be addressed if the hospital administration wants to sustain quality performance from their nurses. Franco et al,[7] Hee O et al,[12] Matsie M et al,[16] Peter et al,[17] and Bodur et al[18] have also concluded that it may be the case that some factors become more important at a specific moment but both intrinsic and extrinsic factors are equally important for employee to perform satisfactorily.

We found that the overall mean motivation score for female participants was higher than their male colleagues. Similar result was shown by Lambrou et al[21] in their work in a hospital at Cryprus contrary to Bodur S et al[18] in hospitals of Turkey. Similar to the study by Munyewende et al[35] among nursing staff of primary health clinic in South Africa, our study also showed that intrinsic factor like personal issues were demotivating for senior (50+ years) staff as compared with their younger colleagues (0-35 years). Factors like general motivation, organizational commitment, and intrinsic job satisfaction showed higher score for senior (50+ years) staff in the present study who have spent substantial professional period with their respective hospital which is not in consensus of work by Bodur S et al,[18] Ayyash H et al, [38] and Jardali E et al.[39]

When the participants' hierarchical positions were analyzed for motivation levels, it was found that nursing officers possessed significantly high mean score for burnout and personal issues and low score for intrinsic job satisfaction as compared with their supervisors suggestive of prevailing demotivation levels among nursing officers. Sacks E et al,[13] Bodur S et al,[18] Bansal et al,[23] and Jardeli E et al[39] also showed that staff working low in hierarchy were more demotivated due to lower salary and lesser respect they perceived as compared with senior staff.

Sack E et al,[13] Ayyash H et al,[37] and Bonenberger et al[40] in their work discussed how career-building opportunities like trainings and promotions were critical for nurses' motivation leading to lower attrition rates in district hospital of Ghana, Gaza strip, and Kenya, respectively. Alhassan et al[36] also documented that nursing participants worked keenly if they were rewarded with the opportunity to get promoted.

Factors like general motivation, personal issues, job satisfaction, and intrinsic job satisfaction showed statistically significant association across different units of hospital ($P < .05$). Bodur S et al[18] and Lambrou et al[21] in their respective studies also mentioned that unit of work is important for nurses motivation. It may be due to the reason that work load and challenges are different in different units of a hospital.

The participant working in the night shifts showed significantly high motivation score for factors like organizational commitment and intrinsic job satisfaction. They were also less demotivated by personal issues. This can be credited to lesser work load in night hours as crucial activities are generally reserved for morning shifts. Bodur S et al[18] and Lambrou et al[21] also observed similar findings in their studies. Similar to findings of current study, other studies have also documented that refresher trainings and workshops increased the level of motivation and work enthusiasm among the participants, with significant high score for factors like general motivation, job satisfaction, organization commitment, and conscientiousness.[13,18,23,26,38,41,42]

High salary was an important motivator in the present study, with staff having salary between 35,001 and 50,000 INR had significantly higher level of intrinsic job satisfaction as compared with staff with lower salary. These findings are in consonance with several studies viz. Sack E et al,[13] Kumar et al,[15] Peter et al,[17] Dieleman et al,[42] and Campbell et al,[43] who advocated that staff's salary is a key motivational instrument. However, contrary findings were observed in a study by Kudo et al[20] in 23 hospitals in Japan concluding that love for work, respect, and safety are far more important than salary for the staff.

Apart from above-mentioned factors, personal safety and shortage of logistics were additional discouraging attributes. Munywende et al[35] and Razee et al [36] concluded that unsafe work environment deteriorated the performance level of the nurses, whereas Alhassan et al[35]and Campbell et al[43]established that shortage of logistics affected nursing staff's optimal performance. Other than these factors, respect, teamwork, and social causes like benevolent nature of work also affect nurses' motivation. Kudo et al,[20] Newton et al,[22] Bansal et al,[23] and Jaiswal P et al[24] through their work have concluded almost the similar findings.

There are several strengths of the study. First, we have used mixed-method approach in which IDIs supplement and strengthen the quantitative survey responses. Second, Consolidated Criteria for Reporting Qualitative Research[34]and Strengthening the Reporting of Observational Studies in Epidemiology[31] guidelines were followed for reporting qualitative and qualitative components, respectively. However, the study has few limitations. It does not clarify any association between motivation and service delivered as it was beyond the scope of the present work. Second, the results may not be generalized to entire gamut of health workers or to a country, although further studies may validate this scale in their country or work context.

5 | CONCLUSION

The present mixed-method study conducted in 3 tertiary-level public health-care hospitals/institutes showed a moderate level of motivation among nurses with extrinsic factors of motivation being more important for them as compared with intrinsic factors. These results can certainly be utilized in hospitals with scarce trained manpower where maintaining their optimal performance is a major challenge.

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CONFLICT OF INTEREST

None.

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