



Health and Job Satisfaction among Nurses of Uttarakhand State

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ABSTRACT Nurses are the backbone of any medical entity or patient care in the health sector. But in India, this important section of workers is highly exploited. Their situation is very pathetic in terms of work environment under which they are working. Seeing this situation, a study with respect to the working environment of nurses was conducted using purposive-cum-random sampling technique in order to know the details about ailments of nurses, caffeine consumption, exercise performed by nurses, meal intake pattern of nurses and overall job satisfaction. Uttarakhand state was selected from which districts of Udham Singh Nagar and Nainital were chosen. A total of 120 ward nurses from 5 government and 6 private hospitals were selected. It was found that types of illness prevalent among nurses were blood pressure, diabetes, thyroid, and gallstone. Exercise was performed by few nurses. Majority of the nurses were able to take full meals daily. The chi-square test showed that there was a significant association between job satisfaction and coordination within department, job satisfaction of nurses and working condition in the health care industry.

INTRODUCTION

Nursing, the calling of administering to the wiped out and the healing, the handicapped and the defenseless, is one of the noblest calling all through the world. From the general ward to the operation theater in the healing facility, nursing is the most essential segment of patient care. The accessibility of viable nursing administrations is a pointer of the strength of a nation's medicare framework. Medical attendants work in different atmosphere and settings. They may work in healing facilities, mental doctor's facilities, recovery nursing homes, homes for the matured or sanatoria. As opposed to the developed nations, in India, the medical attendant and patient proportion is particularly pathetic. Ac-

ording to the proposals of the Nursing Council of India, the medical attendant patient proportion should be 1:1 in basic care unit, 1:3 in the moderate care unit and 1:6 in the general ward. The work put directs the kind of condition in which a medical attendant needs to adjust. The authoritative and natural states of work allude to the path in which the work is overseen and organized. Singh et al. (2015) measured anxiety levels among staff individuals utilizing an approved scale that is, the Expanded Nursing Stress Scale, toward the start and toward the finish of 18 weeks. Although the mean general anxiety scores were lower after the teaching, this was not factually huge. However, sub-investigations demonstrated huge diminishment in worry from their normal workload in overseeing unpredictable and fragile more seasoned individuals.

Nursing work routinely incorporate working extended periods, shift work and compulsory or voluntary over time. Medical caretakers felt little bit exertion since they performed several activities for short time duration however with many more frequencies.

Anbazzhagan et al. (2016) assessed the prevalence of Shift work disorders (SWD) and identified related health problems among nurses in a

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tertiary care hospital in Bangalore. The prevalence of SWD was 43.07 percent. Headache, back pain, gastritis, and menstrual disorders were the most common complaints, which are found in 78 (60.0%), 75 (57.6%), 42 (32.3%), and 39 (30.0%) cases, respectively. Anxiety and depression was found in 23 (17.6%) and 31 (23.8%) individuals, respectively. They also found out a significant association of SWD with increasing age, more number of nights worked in a year, and longer duration of working hours.

Before curing the patients, medical attendants themselves ought to be physically sound and free from any dangers at working environment to serve the patients and in addition themselves with full commitment. Job satisfaction in case of nurses can be influenced by a variety of factors, including availability of functionally sound tools, equipment, supplements, furniture and furnishings at the workplace, quality of relationships with superiors and colleagues, the degree of fulfillment (job satisfaction) and prospects for promotion. Job satisfaction is one of the main points in psychological research and is viewed as a vital pointer of working life. Work fulfillment of medical caretakers can be affected by an assortment of components, including accessibility of practically stable devices, gear, supplements, furniture and decorations at the work environment, nature of associations with boss and colleagues, the level of satisfaction (employment fulfillment) and prospects for advancement. Satisfied/fulfilled workers have a tendency to be more beneficial and innovative. As per a review on occupation fulfillment by Chang and Cho (2016), it was accounted for that verbal abuse was most predominant (59.6%), followed by dangers of violence (36.9%), physical brutality (27.6%), bullying (25.6%), and sexual harassment (22.4%).

The main perpetrators were patients and nurse colleagues, although the distribution of perpetrators varied depending on the type of violence. Bullying had a significant relationship with all four job outcomes (job satisfaction, burn-out, commitment to the workplace, and intent to leave), while verbal abuse was associated with all job outcomes except for intention to leave. Violence perpetrated by nurse colleagues had a significant relationship with all four job outcomes, while violence by physicians had a significant inverse relationship with job satisfaction. Loannou et al. (2015) reported that sixty-

three percent respondents declared that they would like to change workplace if offered an opportunity, and sixty percent would like to change profession. Of the total sample, 30.9 percent reported that they were off-sick 1-3 days during the preceding year, whereas 23.4 percent reported more than 4 days of sick leave. The findings showed that nurses perceived their health-related quality of life as average, and they expected further deterioration in the near future. Higher scores in mental health were generally found among male nurses, those with the possibility to attend continuous education, those working during weekdays only, those working in an urban hospital, those who were willing to stay in the same job and profession, and those who had none or less than 4 days off-sick.

Before curing the patients, nurses themselves should be healthy and free from any risks at workplace to serve the patients as well as themselves with full dedication. The study of this kind especially on nurses has not been conducted till date in India. So, the present study will be of extreme importance for the welfare of society as a whole. The study was undertaken with the following objectives:

- ◆ To get the insights about sicknesses of medical attendants and their ailments.
- ◆ To know about caffeine consumption by nurses.
- ◆ To get the details about the exercise performed by nurses and the meal intake pattern of nurses.
- ◆ To know about overall job satisfaction of the nurses.

METHODOLOGY

In order to achieve the objectives of the study, descriptive-cum-experimental research design was used. Different tools like interview schedule and checklist were used as an instrument for collecting data for research work. Purposive random sampling technique was used to select the study area and samples. It was purposive in nature because the researchers belonged to Uttarakhand state. Districts like Udham Singh Nagar and Nainital were selected purposively from the state as these were near to the place of residence of the investigators. From district Udham Singh Nagar, Sardar Ballabh bhai Patel community health centre, Kichha and Universi-

ty hospital, G. B. Pant University of Ag. and Tech. Pantnagar, J.L.N. district hospital, Rudrapur as government hospitals and Kishore hospital and endoscopy centre, Kichha, Deep hospital, Jivandeep hospital and Futela hospital, Rudrapur as private hospitals were selected purposively. In Nainital district, block, Haldwani was selected from which Female hospital and Base hospital as Government hospitals and Forest hospital, Krishna nursing home as private hospitals were selected purposively as location of these hospitals was near to place of residence. For selection of ward nurses from these above mentioned hospitals, simple random sampling technique without replacement (SRSWOR) was used as number of ward nurses varied from hospital to hospital and selection of equal number of ward nurses was not possible. It was further observed that number of ward nurses was small in case of private hospitals as compared to number of ward nurses in Government hospitals, so a ratio of 70 ward nurses from government and 50 from private hospitals was maintained. Thus, total of 120 ward nurses were surveyed. Out of these 120 ward nurses, ten percent ward nurses (12 ward nurses) were randomly selected (irrespective of the fact that whether they belonged to Government hospital or private hospital) for collection of experimental data. The 120 ward nurses were interviewed for collecting information on various objectives. Occupational details of ward nurses including duration of job, type of job, type of job shift, duration of shift, preference for shift, change in shift, overtime, duration of overtime, type of activities performed by the ward nurses and experience in handling of various medical equipments, accessories and furniture were collected.

RESULTS AND DISCUSSION

Detail about Ailments of Nurses

Ailments of nurses were recorded in order to know their health status during last one year. It is evident from the Table 1 that 33.33 percent nurses were receiving medication for illness and out of which 47.14 percent from government hospitals and fourteen percent nurses from private hospitals. The types of illness as reported by nurses were blood pressure (16.67%), diabetes (12.50%), thyroid (2.5%), and gallstone (1.67%). When analyzing the data in particular category, it was found that in government hospitals, few nurses were suffering from illness like blood pressure (22.86%) followed by diabetes (21.43%) and thyroid (2.86%), whereas in case of private hospitals, nurses had problem of blood pressure (8%) and gallstone (4%). Nurses were asked whether they are hospitalized ever for any reason. It was found that a small proportion that is, 11.67 percent nurses were hospitalized out of which 8.57 percent nurses belonged to government hospitals and sixteen percent belonged to private hospitals. Only 1.67 percent nurses on the whole underwent surgery for gall bladder. Regarding protection from exposure to dangerous substances, data from Table 1 revealed that only 7.5 percent nurses were well protected from dangerous substances out of that twelve percent from government hospitals and 4.29 percent nurses were from private hospitals.

The detail about nurses in Table 1 related with sick leaves taken by them during past 6 months revealed that 4.17 percent nurses had taken 2-3 day sick leave followed by 2.5 percent nurses with 1 week leave. In particular only 2.86

Table 1: Details about ailments of the nurses

S. No.	Details	Government (n=70)	Private (n=50)	Total (N=120)
1.	Medication for Illness	33 (47.14)	7 (14)	40 (33.33)
2.	Illness			
	Diabetes	15 (21.43)	-	15 (12.50)
	Blood pressure	16 (22.86)	4 (8)	20 (16.67)
	Thyroid	2 (2.86)	1 (2)	3 (2.50)
	Gall stone	-	2 (4)	2 (1.67)
3.	Hospitalization	6 (8.57)	8 (16)	14 (11.67)
4.	Surgery	2 (2.86)	-	2 (1.67)
5.	Type of Surgery			
	Gall stone	2 (2.86)	-	2 (1.67)
6.	Protection from Dangerous Substances	6 (12)	3 (4.29)	9 (7.50)
7.	Sick Leave in Past 6 Month			
	2-3 days	1 (1.43)	2 (4)	5 (4.17)
	1 week	2 (2.86)	-	3 (2.5)

*Figures in parentheses indicate the percentage values

percent nurses from government hospitals and four percent from private hospitals took sick leaves for 1 week and 2-3 days respectively. It was revealed that nurses were not allowed to take leaves and their health status also affects the health of their patients. So, nurses were not able to take very few sick leaves.

Caffeine Consumption

As nurses have to work continuously for 6-12 hours in the shifts they have to depend upon beverages like tea and coffee. This is required to keep themselves fresh and awoken and to perform better while taking care of patients with refreshing mood. It is observed from the Table 2 that, tea was consumed 1-2 times per shift by forty percent nurses, 58.57 percent nurses from government hospitals and 3-4 times by forty-six percent nurses from private hospitals. In case of coffee consumption, it was consumed single time by ten percent of nurses.

Physical Exercise Performed By Nurses

The details regarding physical exercise done by nurses are given in Table 3, which is important factor for the physical fitness. It was observed that maximum (18.33%) nurses were performing daily exercise and 5.83 percent nurses performed exercise twice a week. Particularly with regard to nurses from government hospitals, 18.57 percent nurses performed exercise on daily basis and approximately eight percent from

private hospitals performed exercise daily. However, 2.86 percent from government hospitals and ten percent nurses from private hospitals performed exercise twice a week.

Table 3: Physical exercise performed by nurses

Frequency / Nurses	Government		Private	
	20 min	30 min	20 min	30 min
Twice a week	2.86	0	10	14
Daily	18.57	7.14	6	8

Meal Intake Pattern of Nurses

The responses of subjects with regard to their meal intake pattern are given in Table 4. It is evident from the data that majority of the nurses (72.5%) were able to take full meals daily. Poor appetite was reported by 31.67 percent nurses and a small proportion (10.83%) of nurses received nutritional counseling for health maintenance.

The data regarding daily feeding pattern of nurses, it was observed that a good proportion of nurses (70%) was able to take full meals daily, but comparatively less percentage of nurses (5.71%) received nutritional counselling for health maintenance. Near about same situation was observed in private hospitals. The reason behind irregular eating pattern and poor appetite may be owned to shift job, and overtime to provide 24 hour facility.

Table 5 shows the rating of appetite of nurses as reported by the nurses. It is evident from

Table 2: Caffeine consumption by nurses

S. No.	Beverage	Frequency	Government (n=70)	Private (n=50)	Total (N=120)
1.	Tea	1-2 time	41 (58.57)	7 (14)	48 (40)
		3-4 time	5 (7.14)	23 (46)	28 (23.33)
2.	Coffee	1 time	9 (12.86)	3 (6)	12 (10)

*Figures in parentheses indicate the percentage values

Table 4: Meal intake pattern of nurses

S. No.	Details	Government (n=70)	Private (n=50)	Total (N=120)
1.	Take full meals daily	49 (70)	38 (76)	87 (72.50)
2.	Take meals at the same time on each shift	36 (51.43)	34 (68)	70 (58.33)
3.	Poor appetite	20 (28.57)	18 (36)	38 (31.67)
4.	Receive nutritional counselling for health maintenance.	4 (5.71)	9 (18)	13 (10.83)

*Figures in parentheses indicate the percentage values

Table 5: Rating of appetite of nurses

Rating	Nurses	
	Government	Private
Very poor	0	0
Fairly poor	28.57	36
Fairly good	52.86	46
Very good	10	18

the table that a good proportion of nurses (52.86% and 46% from government and private hospitals) had fairly good appetite, which shows nutritional status among nurses is good. Similar type of study was conducted by Zverev (2005) who reported that rotating shift work had significant effect on the amount of full meals. Comparison of the two groups of nurses indicated that volunteers in the study group had lower number of reported full meals per day, lower self-assessed appetite and eating pattern satisfaction during the night-shift phase of the rotating shift cycle than nurses on the day-shift schedule. All respondents in the study group and 40.9 percent of nurses in the control group reported irregular eating pattern. Significant association was found between the self-reported health score and appetite, amount of full meals and eating habit satisfaction in both groups of nurses. Nurses who reported irregular eating pattern had significantly lower subjective health score than nurses who consumed food regularly.

Job Satisfaction and Working Condition

The test (Table 6) showed that there was significant association between job satisfactions

Table 6: Chi-square test for job satisfaction and working condition

Working condition	Job satisfaction			Chi-square value
	Dissatisfactory	Satisfactory	Strongly satisfactory	
Poor	43	11	0	49.14*
Average	12	21	1	
Good	2	26	4	

Table 7: Chi-square test for job satisfaction and coordination within department

Coordination within department	Job satisfaction			Chi-square value
	Dissatisfactory	Satisfactory	Strongly satisfactory	
Poor	32	5	0	69.16*
Average	17	9	7	
Good	0	28	22	

of nurses and working condition in the health care industry which revealed that job satisfaction is the result of good working condition available at the workplace. In another study, Landrigan et al. (2004) demonstrated that intensive care unit interns working a traditional every third night extended 24-hour call schedule executed 5.6 times as many serious diagnostic errors than when they worked an intervention schedule that eliminated extended work shifts and reduced the number of hours worked per week.

Job Satisfaction and Coordination within Department

The Chi-square test in Table 7 showed that there was a significant association between job satisfaction and coordination within department, thus, higher job satisfaction is achieved, if level of coordination among the group members within department as well as outside the department is good. Kinzl et al. (2005) suggested that a high level of job satisfaction in anaesthetists correlates with interesting work demands and the opportunity to contribute skills and ideas. To improve job satisfaction, more attention should be paid to improving working condition, including control over decision-making, and allowing anaesthetists to have more influence on their own work pace and work schedule.

Job Satisfaction and Time Demand at Workplace

Significant association was observed between job satisfaction and time demand. Table 8

Table 8: Chi-square test for job satisfaction and time demand at workplace

<i>Time demand at workplace</i>	<i>Job satisfaction</i>			<i>Chi-square value</i>
	<i>Dissatisfactory</i>	<i>Satisfactory</i>	<i>Strongly satisfactory</i>	
High	17	13	3	35.99*
Average	3	27	6	
Low	5	24	22	

revealed that very high time demand at work place results in job dissatisfaction as in this situation they are not able to perform the household duties in good way. The direct influence of work conditions on outcomes was examined. Mediation of job characteristics in the relationships between work conditions and outcomes was tested by means of regression analyses. The results indicated that job characteristics, such as demands and control, mediated the relationship between work conditions, such as work agreements and rewards, and outcomes. By managing organizational and environmental conditions of work, job characteristics can be altered, and these in their turn influence nurses' job satisfaction and distress.

Job Satisfaction and Infrastructure Facility Available at Hospital

Table 9 revealed that there was a significant association between job satisfaction and infrastructure facility available at the hospitals at five percent level of significance indicating that higher job satisfaction is achieved when infrastructure facilities are good at the hospital. Infrastructure facilities refers to the availability of adequate number of medical equipment and instruments, their proper functioning, availability of

latest technology and good expertise to use it, incentives provided by the hospitals to the nurses in terms of monetary gain and other rewards etc. Presence of all these facilities at workplace may result in job satisfaction among nurses. Tanya et al. (2005) conducted a study to examine the influence of organizational and environmental work conditions on the job characteristics of nurses and on their health and well-being. The sample consisted of 807 registered nurses working in an academic hospital. The direct influence of work conditions on outcomes was examined. Mediation of job characteristics in the relationships between work conditions and outcomes was tested by means of regression analyses. The results indicated that job characteristics, such as demands and control, mediated the relationship between work conditions, such as work agreements and rewards, and outcomes. By managing organizational and environmental conditions of work, job characteristics can be altered, and these in their turn influence nurses' job satisfaction and distress.

Overtime and Concentration Ability

Chi-square test between overtime and concentration ability came out to be non significant (Table 10). It indicated that concentration ability

Table 9: Chi-square test for job satisfaction and infrastructure facility available at hospital

<i>Infrastructure facility available at hospital</i>	<i>Job satisfaction</i>			<i>Chi-square value</i>
	<i>Dissatisfactory</i>	<i>Satisfactory</i>	<i>Strongly satisfactory</i>	
Poor	26	11	0	71.67*
Average	8	19	5	
Good	0	31	20	

Table 10: Chi-square test for overtime and concentration ability

<i>Overtime</i>	<i>Concentration ability</i>			<i>Chi-square value</i>
	<i>Good</i>	<i>Average</i>	<i>Poor</i>	
4-6 hour	5	9	6	4.41 (NS)
6-8 hour	4	7	17	

is not dependent on overtime. Concentration may depend upon the fatigue level and mood of the nurses.

Overtime and Marital Strain

Table 11 revealed that marital strain was not dependent on the duration of overtime spent at the hospitals. The reason may be that overtime was not the problem on regular basis. It depends upon the emergencies occurred at the hospital. The need of professional, skilled nurses will increase as the population ages while the shortage of nurses is the reality already. Nurses are stressed further by inconvenient working hours like extensive working hours, weekend work, evening and night-time work, insufficient breaks during working shift, and even having to take on two jobs in order to make reasonable pay. Stress experienced in the field of nursing is on the increase even though work-related strain in other fields is declining. The growing conflict between the demand and the resources available creates an increasing amount of overload (Wickstrom 2001).

Nursing is a lifesaving job /profession and nurses play a key role in the health sector. If nurses who are characterized by "service and humanity" are suffered by their own poor health or other stressful situation, then they will be unable to give their full priority to this demanding task. Any hospital cannot work effectively and efficiently if there are high circumstances of illness among nurses. Standard of care for the patients in the hospitals is directly linked to the health status of the nursing staff. Thus, developing a healthy and happy work environment for nurses is prerequisite to maintain an adequate number of nurses. In our project, it was obvious from the results that nurses were receiving medication for illness like blood pressure, diabetes, thyroid and gallstone. As reported by Kivimaki et al. (2006), the joint occurrence of high cholesterol, overweight, high blood pressure and disturbed sugar levels lead to 2.2 times high absenteeism than the case when these problems do not occur. It was revealed that nurses

do not get time for exercise, which is a matter of concern because exercise is necessary to keep oneself physically fit especially in case of nurses, whose most of the time is spent in static or sitting position that too in the awkward posture. It was found that they were doing work in sitting posture for about 4-5 hours with little breaks. Rest of the time is spent in standing /squatting position while attending the patients in the wards. The significant association was shown between job satisfactions of nurses and working condition in the health care industry. It shows that job satisfaction is the result of good working condition available at the workplace.

CONCLUSION

Nursing is a demanding field and involves high accountability, and thus its total workload is considerable. The quality of patient care depends directly on the work of skillful and caring nurses; therefore the health and work capacity of personnel form a critical factor in the view of the results of the work. Stress experienced in the field of nursing is on the increase even though work related strain in other fields is declining. The growing conflict between demand and the resources available creates an increasing amount of overload. It was observed from the study that nurses are slowly getting various types of ailments due to static nature of their job. With the passage of time, working in such an environment leads to various lifestyle diseases like blood pressure, diabetes etc. As the job of nurses is sitting in nature, they should emphasize on daily exercise in order to keep themselves fit and fine. Sick leaves are also not allowed frequently due to shortage of staff which ultimately adds to their poor health. Poor appetite was also reported by nurses. The reason behind irregular eating pattern and poor appetite may be owned to shift job, and overtime. There was significant association between job satisfaction of nurses and working condition in the health care industry, coordination within department, time demand, and infrastructure facility available at the hospitals.

Table 11: Chi-square test for overtime and marital strain

<i>Overtime</i>	<i>Marital strain</i>				<i>Chi-square value</i>
	<i>Occasional</i>	<i>Sometimes</i>	<i>Frequent</i>	<i>Very often</i>	
4-6 hour	13	6	1	0	4.22 (NS)
6-8 hour	12	9	4	3	

RECOMMENDATIONS

For Policy Makers: 24 hours working society require immediate attention and therefore, it is the policy makers who should be activated. There is a sharp impact of unsociable hours of work on the health and performance of nurses who are partner of 24 hours working society since ages. It is important for the policy makers of health service organizations that personal, socio-cultural and environmental perspective of the nurses be given due attention. Shift planning should be arranged in such a way that it does not create any physiological and psychological stress. Policies should be worked out for effective napping techniques and to improve the environment. The provision of effective facilities as given below can help the shift workers to cope better.

- ◆ Provide rest facilities where possible.
- ◆ Consider facilities for social activities or recreational opportunities.
- ◆ Consider access to quality day-care for shift workers' children.

For Administrators/Doctors: Nurses deal with a variety of tasks for long periods, in absence of doctors. Nurse has the supreme role of handling the patients. In such situation, a cooperative hand of doctor to a nurse can help in healing any ill effect on the nurses as well as to the care of patients. Therefore, it is recommended that a noticeable sharing of responsibility on the part of doctor will minimize the physiological, psycho-social cost of work of nurses. Good infrastructure facility should be provided at the workplace in order to boost up the morale. Nurse to patient ratio should be low.

For Nurses: Professional nursing organizations should take the lead in setting the standards that will protect nurses both in and out of the workplace. If they fail to recognize and address sleep deprivation as a serious health issue, nursing shortage will be more acute. Nurse managers/matron has a responsibility to formulate strategies to assist those who find it difficult to work at night. For shift worker (nurses), the research enforces the importance of family support and family involvement in moderating shift work's potentially negative effects. Strategies are needed to assist nurses to promote sleep health within the complex context of their own sleep needs, organizational demands, and domestic responsibilities. Education in stress recognition and reduction techniques is helpful.

Generally, nurses do not get time for exercise, which is a matter of concern because exercise is necessary to keep oneself physically fit especially in case of nurses, whose most of the time is spent in static position. The hospital management should encourage them for daily physical exercise. Exercise may include rotating exercise for neck, hands, feet and waist etc.

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