

# Prevalence and Associated Factors of Burnout Syndrome among Nurses in a Private Hospital of Nepal: A Cross-sectional Analytical Study

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Burnout syndrome among nurses is a concerning issue in healthcare settings, leaving them exhausted, raising turnover rates, and thereby reducing the quality of healthcare. This study aimed to assess the prevalence and associated factors of burnout syndrome among nurses working in a private hospital in Nepal. A cross-sectional analytical study was conducted among 141 nurses working in B & B Hospital, Lalitpur, Nepal. A semi-structured research instrument was used to collect data using a self-administered technique. Data analyses were performed using SPSS 20. Descriptive data were presented as frequency, percentage, mean score, and standard deviation. Pearson's chi-squared test and odds ratio were used to make inferences. The results revealed that the majority of respondents had a medium level of burnout syndrome (77.3%), followed by 15.6%, who had a high level. There was no significant association between burnout level and sociodemographic variables. However, burnout level was in significant association with comfort in current unit ( $p < 0.05$ , OR: 44.3), intention to leave ( $p = 0.01$ , OR: 0.3), passionate about profession ( $p < 0.05$ , OR: 11.1), availability of sufficient job resources ( $p = 0.02$ , OR: 3.1), acknowledgement for efforts ( $p < 0.05$ , OR: 9.6) and getting 8 hours of sleep per day ( $p < 0.05$ , OR: 8.6). Hospital administration should establish mental health support, flexible working environment, and healthy work schedules to reduce the level of burnout among nurses.

**Keywords:** associated factors, burnout syndrome, nurses, prevalence.

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**B**urnout syndrome is a psychological response to the persistent exposure to job-related stressors. These responses exhibit in the form of typical emotional exhaustion, depersonalization, and low self-esteem among workers, making them skeptical toward clients and coworkers.<sup>1,2</sup> The syndrome has, therefore, three key components, including emotional exhaustion (EE), depersonalization (DP), and low personal accomplishment (PA).<sup>3</sup> Though burnout can occur in any professional, healthcare professionals pose a higher risk, particularly nurses.<sup>4</sup> As evidenced, the prevalence of burnout syndrome among nurses is significant globally, which requires immediate attention and intervention.<sup>5</sup> Nurses suffer more than other healthcare professionals because of the demanding nature of their work. They are often exposed to job-stressors such as high workload, long working shifts, insufficient support, and resources.<sup>6</sup> They also have to witness and face emotional stressors, such as patients' pain, death, and dealing with bad news.<sup>7</sup> The prevalence of burnout syndrome in Iranian nurses was 36.0% as reported by Rezaei et al.<sup>8</sup> The prevalence was slightly higher among nurses at a hospital in Jeddah.<sup>4</sup> An Ethiopian study revealed a 34.0% prevalence of burnout syndrome among nurses. Shah et al. reported that

31.5% of nurses were leaving their work because of burnout in the United States.<sup>9</sup> In Asian countries, the burnout syndrome was reported at the highest rate (76.9%).<sup>10</sup> In the context of Nepal, the majority (89.5%) of nurses working in different types of healthcare institutions reported a moderate level of burnout among nurses.<sup>11</sup> A single-center study in Nepal revealed that half of the nurses had a moderate level of burnout.<sup>12</sup> Observational research from healthcare centers in Kathmandu has shown burnout rates ranging from 42% to 66%.<sup>13</sup>

Very few studies have been conducted to assess burnout among healthcare workers in Nepal, and among nurses was limited.<sup>12</sup> The published studies suggested burnout syndrome as a major concern, highlighting the workload as a major contributor.<sup>11</sup> Therefore, we aimed to assess the prevalence and associated factors of burnout syndrome among nurses in a private hospital in Lalitpur.

### Materials & Methods

A cross-sectional analytical study was conducted at B&B Hospital, Lalitpur, Nepal. The hospital is a 300-bed private institution providing general to emergency and critical care services. Ethical approval was obtained from the B&B Institutional Review Committee (IRC) (Ref: B&BIRC-24-27). Informed consent was taken from

all the respondents. Privacy and confidentiality of the information were maintained throughout the study.

We included 141 staff nurses currently working in different departments of the hospital. The nurses who were not willing to participate in the study and those who were on long leave during the data collection period were excluded. The sample size was calculated by using Cochran's formula, using the prevalence of 17.7% from the previous study<sup>14</sup>, at a 95% confidence level and a 5% permissible error. Using the finite population of 300, and adding the 10% non-response rate, the final estimated sample size was 141. A proportionate stratified random sampling technique was adopted to select the samples. Each department was considered as a stratum, and the sample size for each was calculated using a sample fraction of 0.47. Data were collected from April to May 2024 using a self-administered approach with a semi-structured tool including sociodemographic information, a 16-item Oldenburg Burnout Inventory (OLBI), and questions related to profession, organization, and lifestyle. The OLBI was used to measure burnout, with 8 items assessing exhaustion and 8 items assessing disengagement. Responses were rated on a Likert scale ranging from 1 (Strongly Agree) to 4 (Strongly Disagree). Before

data collection, feedbacks on the questionnaire were collected from 10% of the total sample size (15) in a similar setting, i.e., Sumeru Hospital of Lalitpur, Nepal. The overall Cronbach's alpha for the OLBI tool was 0.7.

After the data collection, the data were checked for completeness and any errors. Responses were coded and entered into MS Excel, and then imported to SPSS version 20 for further analysis. Items 3, 6, 9, and 11 in the disengagement section, and items 2, 4, 8, and 12 in the exhaustion section were reversely coded. Both sections were summed separately, with a higher score indicating greater burnout. Overall score was categorized into three groups: low  $\leq$  mean-SD, medium = mean $\pm$ , and high  $\geq$  mean+SD. Descriptive data were analyzed using frequency, percentage, mean, and standard deviation. Pearson's Chi-square test was performed to determine significant association, and Odds Ratios between the level of burnout syndrome and selected variables. A p-value less than 0.05 was considered significant.

## **Results**

### **Sociodemographic and professional profile**

**Table 1** shows that out of 141 respondents, most of the respondents (62.4%) were from the aged 25 and below. The mean age was  $25.37 \pm 3.95$ . The age range was from 20 to 45 years. Regarding gender, almost

all of the respondents (98.6%) were female. Similarly, more than half (51.1%) of respondents studied PCL Nursing, and the majority (69.5%) were unmarried. Among 43 married respondents, less than half (48.8%) had no children yet, and 37.2% of the respondents had 1 child. Out of 141 respondents, the majority of respondents (79.4%) had total experience of less than five years in the nursing profession. Similarly, 83.7% had total work experience in the current hospital for less than five years. Likewise, the majority (61.7%) were working in the critical care area.

**Figure 1** illustrates around 60% of the respondents were not getting 8 hours sleep consistently. Nearly 80% had often skipped meals. **Figure 2** shows the levels of burnout among nurses, accounting for 109 (77.3%) of medium level, followed by a high level (15.6%).

### **Respondent's Response on Oldenburg Burnout Inventory**

**Table 2** shows the respondents' responses on the Oldenburg Burnout Inventory (OLBI). The obtained mean score was highest ( $3.00 \pm 0.75$ ) on, there are days when I feel tired before I arrive at work, and lowest ( $1.82 \pm 0.52$ ) on, I find my work to be a positive challenge. The majority (70.9%) agreed that they find their work to be a positive challenge. More

than half (50.4%, 53.2%) agreed that sometimes they feel sick by their work tasks, and they usually feel worn out and weary, respectively. Most of the respondents (73.8%) agreed they feel more and more engaged in my work.

### **Association between burnout levels and sociodemographic variables**

**Table 3** shows that those who feel comfortable working in the current unit had 44.3 times higher odds for a low to medium level of burnout (OR: 44.3, CI [0.2-0.0]) compared to those who were not comfortable. Similarly, those whose intention of leaving the job had 0.3 times lower odds of experiencing low to medium burnout (OR: 0.3, CI [8.7-1.3]) than those who did not leave the job. Moreover, those who are passionate about their profession had 11.1 times higher odds of experiencing a low-to-medium level of burnout syndrome.

**Table 4** shows the association of job risk factors with burnout levels. More than half (59.6%) of the respondents had sufficient resources to perform their job effectively, and the majority (60.3%) got acknowledgement for their efforts. Likewise, most (78.0%) of respondents didn't have tension or conflict with other healthcare professionals, and most (84.4%) were comfortable reaching out to friends for help during the shift. Most (82.3%) of the respondents felt their

Table 1: Sociodemographic and work-related profile of respondents (n=141)

Variables	n	%
<b>Age in years</b>		
≤25	88	62.40
>25	53	37.60
<i>Mean ± SD 25.37±3.954; (20-45)</i>		
<b>Gender</b>		
Male	2	1.4
Female	139	98.6
<b>Educational Qualification</b>		
PCL Nursing	72	51.1
BN/PBNS	25	17.7
BSC Nursing	44	31.2
<b>Marital Status</b>		
Married	43	30.5
Unmarried	98	69.5
<b>Parental Status (If married, N=43)</b>		
No children	21	48.8
One Child	16	37.2
Two children	6	14.0
<b>Total Professional Experience</b>		
≤5 years	112	79.4
>5 years	29	20.6
<b>Working Experience in the Current Hospital</b>		
≤5 years	118	83.7
>5 years	23	16.3
<b>Working Unit</b>		
Non-critical†	54	38.30
Critical*	87	61.70

\*Critical: Neurology, Oncology, ICU, NICU, CCU, Post Operative Ward, HDU, OT, Emergency Ward

†Non-critical: Medical, Surgical ward

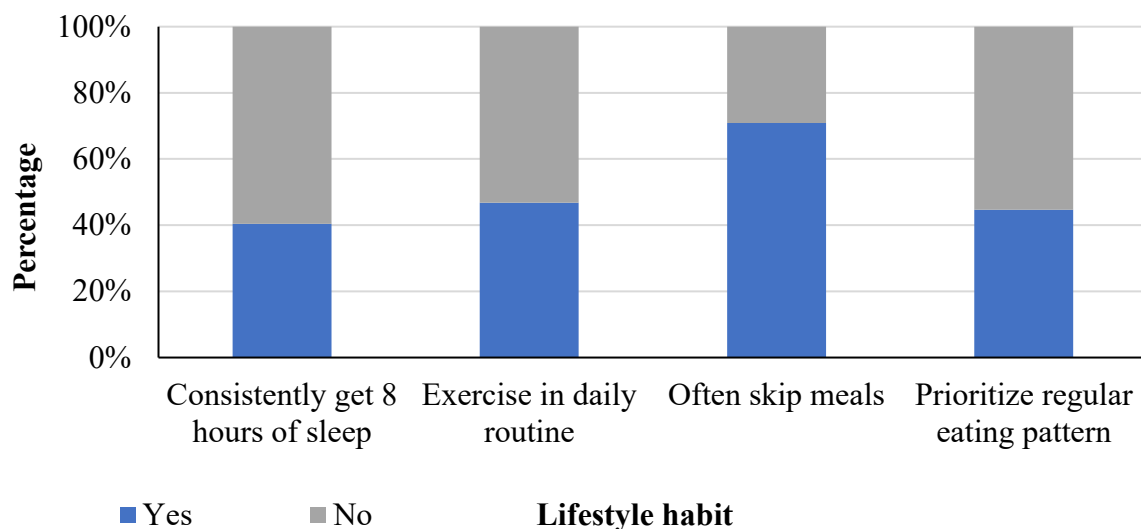


Figure 1: Responses to lifestyle-related factors

Table 2: Item-wise responses on the Likert scale of OBLI

SN	Items	SA	A	D	SD	Mean±SD
1.	I always find new and interesting aspects in my work.	-	86(61.0)	13(9.2)	5(3.6)	1.90±0.70
2.	There are days when I feel tired before I arrive at work. *	35(24.8)	75(53.2)	27(19.2)	4(2.8)	3.00±0.75
3.	It happens more and more often that I talk about my work in a negative way. *	8(5.7)	29(20.7)	87(61.6)	17(12.0)	2.20±0.71
4.	After work, I tend to need more time than in the past in order to relax and feel better. *	29(20.6)	80(56.7)	30(21.3)	2(1.4)	2.96±0.69

## Burnout Syndrome among Nurses

SN	Items	SA	A	D	SD	Mean±SD
5.	I can tolerate the pressure of my work very well.	20(14.2)	86(61.0)	28(19.8)	7(5.0)	2.16±0.72
6.	Lately, I tend to think less at work and do my job almost mechanically. *	9(6.4)	79(56.0)	43(30.5)	10(7.1)	2.62±0.71
7.	I find my work to be a positive challenge.	34(24.1)	100(70.9)	6(4.3)	1(0.7)	1.82±0.52
8.	During my work, I often feel emotionally drained. *	23(16.3)	54(38.3)	59(41.8)	5(3.6)	2.67±0.78
9.	Over time, one can become disconnected from this type of work. *	17(12.1)	65(46.1)	55(39.0)	4(2.8)	2.67± 0.72
10.	After working, I have enough energy for my leisure.	7(5.0)	34(24.1)	74(52.5)	26(18.4)	2.84± 0.77
11.	Sometimes I feel sickened by my work tasks. *	30(20.3)	71(50.4)	36(25.5)	4(2.8)	2.90± 0.75
12.	After my work, I usually feel worn out and weary. *	18(12.8)	75(53.2)	45(31.9)	3(2.1)	2.77± 0.69

*SA: Strongly Agree, A: Agree, D: Disagree, SD: Strongly Disagree; \*Negative Statements*

SN	Items	SA	A	D	SD	Mean±SD
13.	This is the only type of work that I can imagine myself doing	22(15.6)	60(42.6)	46(32.6)	13(9.2)	2.35±0.85
14.	Usually, I can manage the amount of my work well.	16(11.3)	90(63.8)	32(22.7)	3(2.1)	2.16±0.63
15.	I feel more and more engaged in my work.	26(18.4)	104 (73.8)	10(7.1)	1(0.7)	1.90±0.52
16.	When I work, I usually feel energized.	20(14.2)	85(60.3)	35(24.8)	1(0.7)	2.12±0.63
	Total					2.44±0.320

SA: Strongly Agree, A: Agree, D: Disagree, SD: Strongly Disagree; \*Negative Statements

supervisor was responsive to their needs and concerns; however, half (50.3%) didn't find it easy to request and take leave when needed. The odds for low to medium levels of burnout increase by 3.1 times among those who perceived sufficient resources at the job than those who perceived a lack (OR: 3.1, CI [0.8-0.1]). Similarly, those who get acknowledged for their efforts had 9.6 times higher odds of having a low to medium level of burnout than those who didn't get acknowledged (OR: 9.6, CI [0.3-0.0]). Correspondingly, those who consistently get 8 hours of sleep daily had 8.6 times higher odds of experiencing low to medium burnout than those who didn't get (OR: 8.6, CI [0.5-0.0]).

Other factors, including tension with colleagues, comfort asking for help, supervisor responsiveness, ability to take leave, exercise, meal skipping, and prioritizing regular meals, were not significantly associated with burnout ( $p > 0.05$ ).

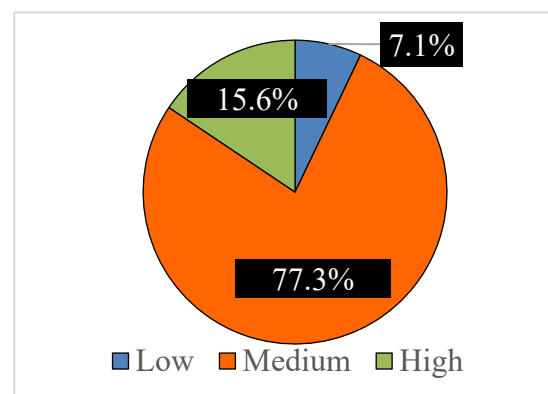


Figure 2: Levels of burnout syndrome among nurses (n=141)



Table 3: Association of burnout syndrome with background variables (n=141)

Variables/Burnout levels	Low to Medium n (%)	High, n (%)	$\chi^2$	OR [95% CI]	p-value
<b>Age (In years)</b>					
≤25	71(80.7)	17(19.3)	2.5	0.4 [1.3-0.2]	0.1*
>25	48(90.0)	5(9.4)			
<b>Education</b>					
PCL nursing	63(87.5)	9(12.5)			
Bachelors	56(81.2)	13(18.8)	1.1	1.6 [4.1-0.7]	0.3*
<b>Marital status</b>					
Married	38(88.4)	5(11.6)			
Unmarried	81(82.7)	17(17.3)	0.04	1.6 [4.7-0.6]	0.4*
<b>Parental status (n=43)</b>					
Not yet	20(95.2)	1(4.8)		4.4[43.5-0.5]	0.4#
1-2 children	18(81.8)	4(18.2)			
<b>Work experience (current)</b>					
≤5 years	100(84.7)	18(15.3)	-	1.2 [3.8-0.4]	0.8#
>5 years	19(82.6)	4(17.4)			
<b>Working unit</b>					
Non-critical	45(83.3)	9(16.7)	0.1	0.9 [2.2-0.4]	0.8#
Critical	74(85.1)	13(14.9)			
<b>Comfortable with unit</b>					
Yes	118(88.1)	16(11.9)		44.3 [0.2-0.0]	<0.05#
No	1(14.3)	6(87.5)	-		
<b>Intention of leaving job</b>					
Yes	27(71.1)	11(28.9)	7.0	0.3 [8.7-1.3]	<0.05*
No	92(89.3)	11(10.7)			
<b>Passion in profession</b>					
Yes	112(89.6)	13(10.4)	22.6	11.1 [0.3-0.03]	<0.05*
No	7(43.8)	9(56.3)			

#Fisher's exact test \*Pearson's Chi-Square Test; Significance level at p-value &lt;0.05, OD=Odds Ratio, CI=Confidence Interval

Table 4: Association of burnout syndrome with organizational and lifestyle-related factors (141)

Variables/Burnout levels	Low to Medium n (%)	High, n (%)	$\chi^2$	OR [95% CI]	p-value
<b>Sufficient resources at the job</b>					
Yes	76(90.5)	8(9.5)	5.8	3.1 [0.8-0.1]	<b>0.02*</b>
No	43(75.4)	14(24.6)			
<b>Get acknowledgement for efforts</b>					
Yes	81(95.3)	4(4.70)	-	9.6 [0.3-0.0]	<b>&lt;0.05#</b>
No	38(67.9)	18(32.1)			
<b>Tension or conflict with a colleague</b>					
Yes	29(93.5)	2(6.5)	-	3.2 [1.4-0.1]	0.2#
No	90(81.8)	20(18.2)			
<b>Comfortable in asking for help during the shift</b>					
Yes	102(85.7)	17(14.3)	1.0	1.8 [1.7-0.2]	0.3*
No	17(77.3)	5(22.7)			
<b>Supervisor is responsive to needs and concerns</b>					
Yes	101(87.1)	15(12.9)	3.5	2.6 [1.1-0.1]	0.06*
No	18(72.0)	7(28.0)			
<b>Easy to request and take leave when needed</b>					
Yes	64(90.1)	7(9.9)	3.6	0.02 [1.1-0.2]	2.5*
No	55(78.6)	15(21.4)			
<b>Consistently get 8 hours of sleep daily</b>					
Yes	55(96.5)	2(3.5)	-	8.6 [0.5-0.03]	<b>&lt;0.05#</b>
No	64(76.2)	20(23.8)			
<b>Exercise in daily routine</b>					
Yes	58(87.9)	8(12.1)	1.1	1.7 [1.5-0.2]	0.3*
No	61(81.3)	14(18.7)			
<b>Often skip meals</b>					
Yes	83(83.0)	17(17.0)	0.5	1.5 [4.3-0.5]	0.5*
No	36(87.8)	5(12.2)			
<b>Prioritize regular eating patterns</b>					
Yes	57(90.5)	6(9.5)	4.0	2.5 [1.1-0.1]	0.1*
No	62(79.5)	16(20.5)			

#Fisher's exact test \*Pearson's Chi-Square Test; Significance level at p-value &lt;0.05, OD=Odds Ratio, CI=Confidence Interval

**Discussion**

The present study revealed that the majority of respondents (77.3%) had a medium level of burnout syndrome. However, Shah et al. in Nepal found that half had moderate levels of burnout among nurses (50%).<sup>9</sup> Our results were contradicted by the findings from India, where Raju et al. reported that only 14.0% had moderate levels of burnout.<sup>15</sup> The findings in the present study revealed that 15.6% had a high level of burnout syndrome. In line with our findings, previous research conducted in Spain reported that 17.7% of respondents had high burnout syndrome.<sup>14</sup> In contrast, Tay et al. and Membrive-Jiménez et al. reported that 33.3% and 34.1% of the respondents had high burnout.<sup>16</sup> Unlike our findings, Udho et al. found nearly half (49.1%) of their respondents had high burnout levels in North Uganda.<sup>17</sup> On the other hand, Feleke et al. and Anita et al. reported contrasting findings, where 56.5% and 66.95% of the respondents had high burnout, respectively.<sup>18</sup> Another study in Saudi Arabia also revealed that 67.5% of the respondents had high burnout.<sup>19</sup> This might be due to different settings and different working environments.

In the present study, there was no significant association between the level of burnout syndrome and

sociodemographic variables that are age ( $p=0.1$ ), educational qualification ( $p=0.3$ ), marital status ( $p=0.4$ ), and parental status ( $p=0.4$ ). Similar findings were found in a study conducted in Saudi Arabia supported that there was no significant association between the level of burnout syndrome and socio-demographic variables (age, gender, education level, marital status).<sup>19</sup>

This study disclosed a statistically significant association between burnout syndrome and comfortable working in the current unit ( $p<0.05$ , OR: 44.3). Heidari et al. and Carmen Quesada-Puga et al. consistently reported that lower job satisfaction is associated with increased burnout level.<sup>20,21</sup> In the current study, there was a significant association between the level of burnout syndrome and intention to leave a job ( $p<0.05$ ). Previous studies also supported this finding, showing a significant link between burnout and intention to leave the job ( $p=0.02$ ).<sup>22,23</sup> In the current study, there was a significant link between burnout syndrome and passion about their profession ( $p<0.05$ ). The finding was supported by a study in Ethiopia ( $p=0.02$ ).<sup>24</sup> The reason could be attributed to differences in sample size, study settings, and working culture.

Moreover, there was a significant association between the level of burnout

syndrome and organization-related variables such as sufficient resources to perform the job effectively ( $p=0.02$ ), and those who get acknowledgement for their efforts ( $p<0.05$ ). Similarly, a study by Mijakoski et al. also revealed the significant negative association between job resources and emotional exhaustion.<sup>25</sup> Consistently, a study by Munn et al. also reported that the burnout level among nurses was significantly associated with the recognition of their work.<sup>26</sup> However, a study conducted in Ethiopia revealed no association between the level of burnout syndrome and resource adequacy ( $p=0.8$ ).<sup>27</sup> Likewise, our findings showed a significant association between the burnout level and lifestyle-related variables, including consistently getting 8 hours of sleep ( $p<0.05$ ). The significant link between burnout levels and sleep quality was also reported by previous studies ( $p<0.05$ ,  $P<0.001$ ).<sup>17,28</sup>

### **Conclusion**

Most of the respondents in the present study had a moderate level of burnout syndrome, followed by a severe level. The burnout level didn't vary according to socio-demographic factors (age, gender, education, and marital status). However, significant associations were observed between burnout levels and profession-related factors (comfortable working unit,

intention to leave, and passion for the profession), organization-related factors (adequate resources and recognition), and lifestyle-related factors (sleeping hours). Findings underscore the need for healthcare institutions to recognize and acknowledge nurses' efforts, ensure adequate resources and shifts gaps, and adopt motivating strategies to reduce their turnover. A multicenter approach should be adopted to compare the scenario of burnout among nurses in future studies.

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