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Job Satisfaction among School Health Nurses in Nepal

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Abstract

“One School One Nurse Program” was introduced in Nepal as a pilot in 2018 by the Bagmati Provincial government. Gradually, the program has now expanded to all seven provinces. The core agenda of the program is to promote student’s health and learning while they are at school through the services provided by a school nurse. School nurses have been employed in many schools but their retention has emerged as big challenge. This study made an attempt to assess job satisfaction and the factors influencing job satisfaction status of school nurses through Herzberg’s (1959) motivation hygiene theory. This cross-sectional descriptive census survey was conducted among 519 school nurses of the community schools from August 2023 to February 2024. Data were collected through a structured questionnaire using the KoboToolbox platform. The study is based on Paula Stamp’s (1997) Index Work Satisfaction (IWS) questionnaire adapted and localized to match the context of Nepalese school nurses. The six-dimensions scale of school nurses job satisfaction, which demonstrated good internal reliability ($\alpha = 0.74$) include three hygiene factors (pay, organizational policy and interaction) and three motivation factors (autonomy, task requirements and professional status). The

measurement used a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The high mean score indicated stronger agreement and consequently, a higher level of satisfaction. Using SPSS v26 descriptive statistics, independent-samples t-tests, one-way and ANOVA were carried out. Results revealed that, all the respondents were female with age range from 20 to 47 years ($M = 27.43$, $SD = 4.24$). The motivational factors composite mean (3.36) was found higher than hygiene factors mean (2.94). Among six factors, results demonstrated professional status (Mean = 3.62) as more satisfying factor and organizational policy as the dissatisfying factor. School nurses', not having children, nurses with PCL degree, and nurses who felt training adequacy had statistically significantly linked to job satisfaction ($p < 0.05$). In conclusion, job satisfaction was found at moderate level. The study recommends the need to address organizational policy; contractual position, career ladder, work site support, a competitive incentive package, and in-service training in school settings to enhance retention.

Keywords: school nurses, job satisfaction, job retention, one school one nurse

Introduction

Job satisfaction has a significant and positive relationship with employ performance. Satisfied employees tend to be more productive, creative, responsive and committed to their employer to fulfil the organization goal. Job satisfaction also contributes to intention to stay and it retains qualified employees (Al-Aameri, 2000; Kong *et al.*, 2018). Thus, school nurses job satisfaction could be directly linked to their performance which determine students' health and learning participation or their ability to learn (National Association of School Nurses, 2016; Zborowska-Dulat *et al.*, 2018). Kong *et al.* (2018) suggest that employer should be provide their employees organizational support, training opportunities and update their skills with supportive environment and policies. Nurses professional well-being is primarily determined by career progression, payment, and work environment rather than demographic factors (Lialias *et al.*, 2026). Low job satisfaction reduces quality of life and high turnover intention of nurses (Jung & Kim, 2025).

School nurse program was initiated for the first time in Nepal in 2018 by the Bagmati Provincial government and now it has been gradually expanded nationally. The program has been able to make some positive changes in students' health and overall school health program (Tuitui *et al.*, 2025), a huge number of turnover indicates that there

could be issues in their satisfaction resulting into such a high school nurse turnover (Government of Bagmati Province, 2023/2024; Government of Bagmati Province, 2022/23; Himal Press, 2025, December 25; Kantipur Television, 2025, December 21; Nepal news, 2025, December 25). Thus, this study specifically explored the status of job satisfaction among the school nurses who are currently working in community schools of Nepal.

This research employed Herzberg's two-factor theory of motivation as a reference theory to investigate job satisfaction, as it helps identify school nurses' job-related issues that can support and sustain them in their profession (Herzberg *et al.*, 1959). Similarly, this theory was helpful to determine the school nurse's motivation and the factors that contribute to their job satisfaction. If the nurses have a supportive environment, they can demonstrate increased efficiency and productivity. The figure below illustrates how motivators and hygiene factors could contribute to job satisfaction. Many researchers have applied this theory to investigate job satisfaction and employee engagement in healthcare organizations (Jones, 2011; Kacel *et al.*, 2005; Kenny *et al.*, 2016; Palmer, 2021)

Table 1: *Hertzberg's Motivation Hygiene Theory*

Satisfiers (Motivators)	Dissatisfiers (Hygiene Factors)
↑ Performance and achievement	↓ Salary
↑ Recognition	↓ Working condition
↑ Job status	↓ The physical workspaces
↑ Responsibility	↓ Relationships with colleagues
↑ Opportunities for advancement	↓ Relationship with supervisor
↑ Personal growth	↓ Quality of supervisor
↑ The work itself	↓ Policies and rules
Improving these factors helps to increase job satisfaction	Improving these factors helps to decrease job dissatisfaction

<https://www.simplypsychology.org/herzbergs-two-factor-theory.html>

Satisfaction is primarily a product of performance (Locke, 1970). The term 'satisfaction' has multiple dimensions but in this research: pay, autonomy, task requirements, organizational policies, interactions and professional status are included for the school nurse job satisfaction. By using these two factors theory efforts have been made to assess the situation of school nurse job satisfaction and suggest the practical solutions to

address the problems and challenges that exist in the school nurse program. Among the two factors, motivation factors included; autonomy, task requirements and professional status whereas hygiene factors included; pay, interaction and organizational policies). Thus, this theory served as the primary reference theory for this study.

Methods and Materials

Cross-sectional descriptive census survey was carried out for this study. The main objective of this research was to assess the job satisfaction of the school nurses, who were working in government schools across all seven provinces of Nepal. Thus, census survey was used for nation-wide data collection using a self-administered, closed-ended questionnaire following a post-positivist paradigm which emphasizes “the quantitative approach, survey method, closed-ended questions, predetermined approaches, and numerical data and statistical procedures” (Creswell, 2009, p. 34). List of the school nurses was obtained from the related offices of each province and they were contacted by phone. Out of 714 who responded to the phone call, only 519 school nurses participated in this study.

Data were collected through a closed ended questionnaire using the KoboToolbox platform. Survey tool were shared via electronic link of school nurses’ personal email and social medias (WhatsApp, Messenger, Viber) online platform. The researcher adapted Paula stamps (1997) Index Work Satisfaction (IWS) questionnaire as it has been used extensively to investigate job satisfaction. The six-dimensions scale of school nurses job satisfaction, which demonstrated good internal reliability ($\alpha = 0.74$) include three hygiene factors (pay, organizational policy and interaction) and three motivation factors (autonomy, task requirements and professional status). The measurement used a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The high mean score indicated stronger agreement and consequently, a higher level of satisfaction. Using SPSS v26 descriptive statistics, independent-samples t-tests, one-way and ANOVA were carried out.

The researcher obtained approval from the university's ethical review board and from Nepal Health Research Council (NHRC) on 29 September 2023 (protocol Registration No; 517/2023). Then researcher contacted the respective organizations along with the letter of recommendation from the university. After getting approval from the authority, she contacted the Provincial Ministries, and they issued an approval letter to contact the schools and the school nurses for data collection. Participation in the study was

voluntary, written informed consent was obtained from respondents, confidentiality and anonymity of respondent's information were strictly maintained throughout the study.

Results

A total of 519 school nurses were included in the study and the data were collected and analyzed as per the protocol described earlier. All the participants of this study were female. So, no male nurses have been employed as school nurse in Nepal. Out of 519 school nurses around 80% (414) were found 20-30 years of age. According to ethnicity, there were more than half (51.06%) school nurses from Brahmin/Cheetri community. Married nurses were about 60% (307), among them 206 (67.1%) have children. Nurses with Proficiency Certificate Level (PCL) 366 (70%) hold the larger number than those with Bachelor degree and above (30%). Out of 519 schools, 356 (69%) schools had less than 700 students' and 163 (31%) schools with more than 700 students. National Association of School Nurse (NASN) recommended a 1: 750 nurse to student ratio for healthy student population (National Association of School Nurse, 2015). About one third nurses were found overloaded in their job.

Training is a very important input for school nurses before they start working in the schools. As the school nurses were not trained for school health, rather they were prepared for the clinical health services at the hospital, training on school nursing is very important for them. However, around 40% nurses did not receive induction training of the school health program and the nurses who received training, out of 315, 229 (73%) of them still felt received training was inadequate for school nurse program implementation.

Job satisfaction was measured on the basis Herzberg *et al.* (1959)'s Two Factors Theory and adaptation of Stamps (1997) Index Work Satisfaction (IWS) tool within the context of Nepal. This tool includes 36 questions on six dependent variables; pay, autonomy, task requirements, organizational policies, interactions and professional status. There were five items for pay, six for autonomy, five for task requirements, six for organizational policies, seven for interactions, and seven in professional status. Among them motivation/intrinsic factors include autonomy, task requirements, professional status and hygiene/extrinsic factors include pay, organizational policies, interactions.

The measurement used a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The high mean score indicated stronger agreement and consequently, a higher level of satisfaction. Data were analyzed and interpreted using descriptive statistics, independent-samples t-tests, one-way ANOVA. Where significant group

differences were identified, statistical significance was determined at $p > .05$.

Across the six dependent variables of job satisfaction, overall average mean score was 3.15 (SD=0.30), t- value is 11.48, and P value is <0.001 , indicating statistically significant results across all items and revealed moderate level of satisfaction.

Table 2: Description of Scores Used in Calculating Index Work Satisfaction of school nurses ($n=519$)

Variables	No. of Items	Mean	SD	t	P-value
Pay	5	2.92	.74	-2.25	0.02
Autonomy	6	3.22	.51	9.99	<0.001
Task requirements	5	3.22	.38	13.46	<0.001
Organizational policies	6	2.39	.51	-26.44	<0.001
Interaction	7	3.52	.61	19.23	<0.001
Professional status	7	3.62	.48	29.78	<0.001
Total	36	3.15	.30	11.48	<0.001

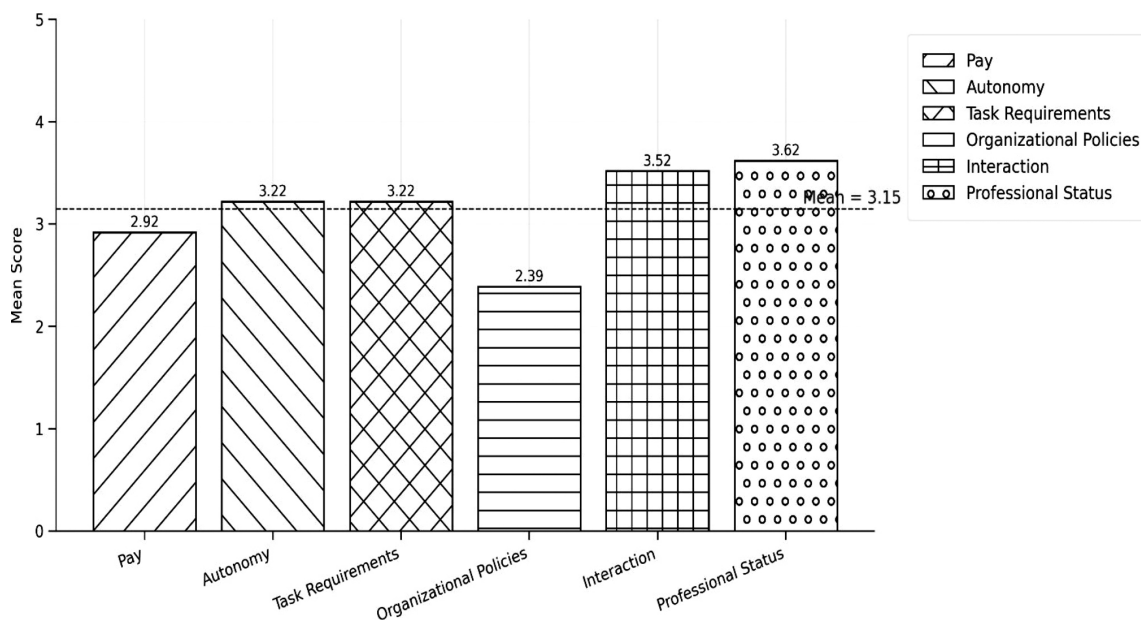


Figure 1: Mean Scores of Job Satisfaction Variables among School Nurses

Among the six variables, mean score of professional status was found to be the highest (Mean=3.62, SD=0.48 and $P<0.001$) followed by interaction (Mean=3.52, SD=0.61

and $P < 0.001$), task requirements (Mean=3.22, SD=0.38 and $P < 0.001$), autonomy (Mean=3.22, SD=.51 and $P < 0.001$), pay (Mean=2.92, SD=0.74 and $P = 0.02$) and organizational policy (Mean=2.39, SD=0.51 and $P < 0.001$). The mean score of pay and organizational policy is significantly low, whereas that score is significantly high in the remaining cases compared to the population means.

Among the six variables, professional status scored highest, followed by interaction, task requirements, and autonomy were all significantly above the population mean. In contrast, pay and organizational policy had significantly lower mean scores, indicating dissatisfaction in these areas compared to others (all p-values < 0.05).

Table 3 presents the influences of ten background variables (age, ethnicity, marital status, with or without children, academic qualification, work experience, work settings, students' numbers, training received and training adequacy) in job satisfaction of school nurses using one way ANOVA and independent samples t- test. It denotes the mean difference in job satisfaction situation within and among the categories of all sample characteristics. Among them, four variables were found to be statistically significant. Those are nurses with or without children, their academic qualification, work experience and training adequacy. In contrast, the remaining six variables were found statistically insignificant. Those are age, ethnicity, marital status, work settings, students' numbers and training received.

Table 3: Job Satisfaction According to their Background Characteristics (N=519)

Variables	Categories	N	Mean	SD	p-value
Age	20 – 25	195	3.17	0.31	0.25
	25 – 30	219	3.15	0.30	
	30 – 35	81	3.12	0.31	
	above 35	24	3.05	0.28	
Ethnicity	Brahmin/Cheetri	265	3.13	0.30	0.16
	Janajati	188	3.15	0.30	
	Others (Dalit, Muslim...)	66	3.23	0.30	
Marital Status	Unmarried	212	3.18	0.32	0.11
	Married	307	3.13	0.29	

Variables	Categories	N	Mean	SD	p-value
Children					
	No	313	2.97	0.41	0.03
	Yes	206	2.91	0.40	
Academic qualification					
	PCL Level	366	3.19	0.30	<0.001
	Bachelor or Higher	153	3.06	0.28	
Work experience					
	6-24 months	243	3.12	0.31	0.05
	More than 24 months	276	3.17	0.29	
Work setting					
	Urban	281	3.16	0.30	0.52
	Rural	238	3.14	0.30	
Students' numbers					
	Less than 300	129	3.16	0.32	0.50
	300-500	139	3.17	0.31	
	500-700	88	3.14	0.30	
	More than 700	163	3.12	0.28	
Training received					
	No	204	3.16	0.29	0.45
	Yes	315	3.14	0.31	
Training adequacy					
	No	229	3.10	0.30	<0.001
	Yes	86	3.27	0.28	

Among the four significant variables, with or without children is one of the significant variables; with a p-value 0.03 and on the basis of mean scores they are; without children (Mean=2.97 and SD=0.41) and with children (Mean=2.91 and SD=0.40). Without children, nurses were found to be more satisfied with their job compared to with children nurses.

Another variable is academic qualification and the result was found significant (<0.001) for this variable. Those nurses with a PCL qualification experienced (Mean=3.19 and SD=0.30) higher satisfaction than those with a bachelor's and higher degree (Mean=3.06 and SD=0.28). Furthermore, the p-value of training at work experience variable is 0.05. Those with more than 24 months 'work experience (Mean=3.17 and SD=0.29) had higher satisfaction than 6-24 months experience (Mean=3.12, SD=0.31).

Additionally, those who rated their training as adequate (Mean=3.27 and SD=0.28) were more satisfied compared to those who found it inadequate (Mean=2.10, SD=0.30) with a significant p-value of <0.001.

Among ten variables, six variables were found to be statistically insignificant, those are age (P=0.25), ethnicity (P=0.16), marital status (P=0.11), work setting (P=0.52) students' numbers (P=0.50) and training received or not (P=0.45).

Hygiene Factors Influencing Nurses' Job Satisfaction

In this study, hygiene factors comprised the aspects of organization-provided salary/ pay, policy, and interaction. These are extrinsic factors and essential to prevent job dissatisfaction. Their absence can lead to significant dissatisfaction. However, their presence does not necessarily increase job satisfaction. Hygiene factors are also known as safeguard factors (Bellizzi & Padrini, 2021; Bhagwandeem, 2021; Hasani, 2020). Table 4 presents the composite mean scores of hygiene factors as 2.94 (SD = 0.04, t = -2.88) that include pay, policy, and interaction. All three variables are found to be significant (p < 0.001). Among them, 'interaction' has higher score (Mean = 3.52, SD = 0.61, and t-value 19.23), and organizational policies (Mean = 2.39, SD = 0.51, and t = -26.44) have been rated as the least satisfying variables. Pay has a mean = 2.92, SD = 0.74, and a t-value of -2.25.

Table 4: *Index Work Satisfaction Status of Hygiene Factors (n=519)*

Variables	Mean	SD	T	P-value
Pay	2.92	.74	-2.25	.02
Organizational policies	2.39	.51	-26.44	<0.001
Interaction	3.52	.61	19.23	<0.001
Total	2.94	.40	-2.88	<0.001

Table 5 demonstrates the status of hygiene factors (pay, organizational policy and interaction) with the ten background variables among the nurses. The mean difference was measured by an independent one-sample t-test and a one-way ANOVA. It indicates the mean difference in hygiene factors within and among the categories of all background characteristics. Among them, marital status, academic qualification, work experience, and training adequacy variables are found to be statistically significant. In contrast, remaining six variables, age, ethnicity, with or without children, work settings, students' numbers, and training received, are found to be statistically insignificant.

Table 5: Status of Hygiene Factors with References to Sample Characteristics (n=519)

Variables	Categories	N	Mean	SD	p-value
Age	20 – 25	195	2.97	0.41	0.42
	25 – 30	219	2.95	0.39	
	30 – 35	81	2.90	0.43	
	above 35	24	2.87	0.37	
Ethnicity	Brahmin/Cheetri	265	2.92	0.40	0.11
	Janajati	188	2.95	0.40	
	Others (Dalit, Muslim...)	66	3.03	0.42	
Marital Status	Unmarried	212	2.99	0.41	0.03
	Married	307	2.91	0.40	
Children	No	313	2.97	0.41	0.11
	Yes	206	2.91	0.40	
Academic qualification	PCL Level	366	2.99	0.40	<0.001
	Bachelor or Higher	153	2.84	0.40	
Work experience	6-24 months	243	2.90	0.41	0.04
	More than 24 months	276	2.98	0.39	
Work setting	Urban	281	2.96	0.41	0.33
	Rural	238	2.92	0.39	
Students' numbers	Less than 300	129	2.94	0.42	0.26
	300-500	139	3.00	0.39	
	500-700	88	2.94	0.42	
	More than 700	163	2.90	0.38	
Training received	No	204	2.96	0.41	0.44
	Yes	315	2.93	0.40	
Training adequacy	No	229	2.86	0.40	<0.001
	Yes	86	3.13	0.31	

The results indicate that the marital status categories have significant results in hygiene factors ($P=0.03$) on the basis of mean score results, unmarried (Mean=2.99 and $SD=0.41$) and married (Mean=2.91, $SD=0.40$). Unmarried nurses were more satisfied in the hygiene factors compared to married nurses. Another variable was academic qualification which was also found significant ($P=0.04$). Those with a PCL qualification experienced higher satisfaction (Mean=2.99 and $SD=0.40$) than those with a bachelor's and higher degree (Mean=2.84 and $SD=0.40$). Furthermore, p-value of work experience variable is 0.04. Nurses with than 24 months' work experienced (Mean=2.98 and $SD=0.39$) were found more satisfied in job than those of 6-24 months experienced (Mean=2.91 and $SD=0.40$). Additionally, those who rated their received training as adequate ($M=3.13$ and $SD=0.31$) were more satisfied compared to those who found it inadequate ($M=2.86$, $SD=0.40$) with a significant p-value of <0.001 .

Remaining six variables were found statistically insignificant. Those were age ($P=0.42>0.05$), ethnicity ($P=0.11>0.05$), with or without children ($P=0.11>0.05$), working in rural and urban setting ($P=0.33>0.05$) students' numbers ($P=0.26>0.05$) and training received or not ($P=0.44>0.05$).

All school nurses are in contractual position and major concerned was found in their job insecurity. There is a limited evidence in the literatures that job insecurity affects temporary and permanent workers differently, with temporary workers experiencing lower intrinsic job satisfaction and permanent workers facing reduced extrinsic job satisfaction (Callea *et al.*, 2014).

Motivational Factors Determining Nurses' Job Satisfaction

Motivation is a process that drives to achieve their goal. According to Herzberg, autonomy, task requirement, and professional status, which are also known as intrinsic factors promote job satisfaction and motivate employees to commit to their jobs (Bellizzi & Padrini, 2021; James, 2020). (Bellizzi & Padrini, 2021; James, 2020). Table 6 shows that the motivation factors composite mean score are 3.36 ($SD=0.32$), and t- value is 25.40 with a p-value of <0.001 . All three variables were found significant. Among them professional status mean score result was significantly high (Mean=3.62, $SD=0.48$), t-value is 29.78, followed by task requirements (Mean=3.22, $SD=0.38$), t-value is 13.46 and autonomy mean score is 3.22 ($SD=0.51$), t-value is 9.99.

Table 6: *Index Work Satisfaction Status of Motivation Factors (n=519)*

Variables	Mean	SD	T	P-value
Autonomy	3.22	.51	9.99	<0.001
Task requirements	3.22	.38	13.46	<0.001
Professional status	3.62	.48	29.78	<0.001
Total	3.36	.32	25.40	<0.001

Table 7 presents the status of motivation factors concerning age, ethnicity, marital status, with or without children, academic qualification, work experience, work settings, students' numbers, training received, and training adequacy among the nurses. The mean difference was measured by independent one sample t-test and one-way ANOVA. It indicates the mean difference in motivation factors within and among the categories of all sample characteristics. Among them, three variables were found statistically significant: with or without children, academic qualification, and training adequacy. In contrast remaining seven variables were found statistically insignificant. Those variables are age, ethnicity, marital status, work experience, work settings, students' numbers and training received.

Table 7: *Status of Motivation Factors with References to Sample Characteristics (n=519)*

Variables	Categories	N	Mean	SD	P-value
Age					
	20 – 25	195	3.37	0.31	0.29
	25 – 30	219	3.36	0.32	
	30 – 35	81	3.34	0.30	
	above 35	24	3.24	0.34	
Ethnicity					
	Brahmin/Cheetri	265	3.35	0.32	0.21
	Janajati	188	3.34	0.32	
	Others (Dalit, Muslim...)	66	3.42	0.30	
Marital Status					
	Unmarried	212	3.36	0.33	0.69
	Married	307	3.35	0.31	
Children					
	No	313	3.38	0.33	0.04
	Yes	206	3.32	0.30	

Variables	Categories	N	Mean	SD	P-value
Academic qualification					
	PCL Level	366	3.39	0.32	<0.001
	Bachelor or Higher	153	3.28	0.30	
Work experience					
	6-24 months	243	3.34	0.32	0.27
	More than 24 months	276	3.37	0.31	
Work setting					
	Urban	281	3.36	0.31	0.98
	Rural	238	3.36	0.32	
Students' numbers					
	Less than 300	129	3.38	0.31	0.85
	300-500	139	3.35	0.35	
	500-700	88	3.35	0.33	
	More than 700	163	3.34	0.30	
Training received					
	No	204	3.36	0.31	0.64
	Yes	315	3.35	0.32	
Training adequacy					
	No	229	3.33	0.31	0.04
	Yes	86	3.41	0.34	

The results indicate that nurses with or without children's category have significant impact in motivation factors ($P=0.04$): mean scores, without children (Mean=3.38 and SD=0.33) and with children (Mean=3.32, SD=0.30). Nurses without children were found to be more satisfied and motivated compared to nurses without children. Another variable, academic qualification was also found to be significant ($P<0.001$). Those with a PCL qualification experienced higher satisfaction (Mean=3.39 and SD=0.32) than those with a bachelor's and higher degree (Mean=3.28 and SD=0.30). Additionally, those who rated their received training as adequate (M=3.41 and SD=0.34) were more satisfied compared to those who found felt inadequate training (M=3.33, SD=0.31) with a significant p-value of <0.05 .

The remaining other seven variables were found to be statistically insignificant. Those are age ($P=0.29>0.05$), ethnicity ($P=0.21>0.05$), marital status ($P=0.69>0.05$) with or without children ($P=0.27>0.05$), working in rural and urban settings ($P=0.98>0.05$) students' numbers ($P=0.85>0.05$) and training received or not ($P=0.64>0.05$).

Table 8: *Compared between Hygiene and Motivation Factors*

Variables	Mean	SD	T	P-value
Hygiene factor (External/extrinsic factor)	2.94	0.04	-2.88	<0.001
Motivation factor (Internal/Intrinsic factors)	3.36	0.32	25.40	<0.001

Hygiene and motivation were both found to be significant on the basis of mean score comparison between hygiene (Mean= 2.94, SD=0.04 and $t = -2.88$) and motivation (Mean=3.36, SD=0.32, $t = 25.40$) factors. The mean score for motivation factors was found to be higher than the hygiene factor. Thus, nurses were found to be more satisfied in motivation factors than in the hygiene factors.

Herzberg *et al.* (2017) mentions that four situations can occur (Herzberg *et al.*, 2017): If increased hygiene + increased motivation: Optimal conditions for employees. Another second situation is increased hygiene + decreased motivation: There is much criticism or lack of satisfaction from employees, but there is a financial reward. Furthermore, the third situation is decreased hygiene + increased motivation: Employees enjoy the job, but salary and benefits are lacking. Additionally, fourth situation if decreased hygiene + decreased motivation: Total dissatisfaction with the job. The mean score on hygiene factors is 2.94 (SD=0.40) with p-value of <0.001. and motivation factors' mean score is 3.36 (SD=0.32) with p-value of <0.001. Thus, based on the data and the results, the third situation has been observed and harmonized (decreased hygiene + increased motivation). Nepalese school nurses are seen to be enjoying their job, but salary and benefits are inadequate (Herzberg *et al.* (2017).

Discussion of the Findings

School nurses are generally satisfied with their professional status and the interactions they have with others. However, they do not seem to be happy with the existing incentives, such as salary and the organization's policies that guide their work, although they rated themselves as satisfied in terms of receiving salary on time. Similarly, those school nurses who do not have children and possess a PCL qualification, and with long experience show higher satisfaction than others. Age, ethnicity, work setting, students' numbers, and training experience were not found statistically significant to their satisfaction level.

Being able to make independent decisions and the exercise of their agency in providing care to the students were highly celebrated by the school nurses across the main

background variables, such as age, marital status, level of education, having children and training adequacy, but they expressed their frustrations when they were assigned some other non-related tasks during their duty hours. A general agreement was found among the school nurses regarding their satisfaction with the number of students they serve, but they wished for more support from their peers and school staff in their work. Recognition from the school administration, teachers, students, and parents gives them a sense of satisfaction, and they take pride in being school nurses. It makes them feel that their work is important and they are needed in the schools, not only for children but for the overall school health ecosystem. They also seem to be happy that their interaction with the stakeholders has been positive, which makes them happy and satisfied.

Regarding the task load, all Nepali school nurses, irrespective of their demographic backgrounds, are satisfied with the way they have served the students in schools. However, they wished they had more time for individualized care for some students, particularly those with chronic health problems. One of the biggest areas of dissatisfaction among school nurses in Nepal is the lack of clarity in policy documents regarding their career as a school nurse, job security, promotion, and other incentives. Regarding the findings with reference to the two-factor theory of Herzberg, the 'motivation factors' were rated relatively higher in terms of their satisfaction than those of 'hygiene factors', indicating that the extrinsic forces need to be addressed in order to motivate school nurses to their job with satisfaction.

Herzberg's motivation-hygiene theory (Herzberg *et al.*, 1959) helps interpret how school nurses' job satisfaction can significantly influence students' health and learning participation with reference to two key factors: motivators and hygiene factors. Motivators, such as achievement, responsibility, autonomy, advancement, and opportunities for growth lead to job satisfaction, which are also referred to as growth factors. They affect the feeling of satisfaction. Similarly, hygiene factors, viz., salary, policy, supervision, and relationships, prevent dissatisfaction. Motivators are intrinsic factors that lead to personal growth and self-actualization, whereas hygiene factors, which are extrinsic, prevent people from being unhappy but do not create satisfaction. This theory contradicts the conventional understanding of job satisfaction, which posits that satisfaction and dissatisfaction are mutually linked and influence each other directly (Nickerson, 2023). However, their effectiveness may be reduced by low job satisfaction, highlighting the need to assess their satisfaction levels.

Globally many organizations are facing a challenge to satisfy their employers and

retain them. If employees are not happy and they are not satisfied, it will harm the productivity and it mainly affects the countries with limited resources (Gebregziabher *et al.*, 2020; Top & Ali, 2021). Job satisfaction is a multi-dimensional concept influenced by many variables and context (Miller, 2007; Shaikh *et al.*, 2012). Several studies have been carried out in this regard and they have indicated that there is a positive connection between job satisfaction and productivity in the tasks (Alshmemri *et al.*, 2016; Foley *et al.*, 2004; Guenette, 2014; Hasani, 2020; Holmberg *et al.*, 2018; Jones, 2011; Lephala *et al.*, 2008; Nelson, 2006).

Many of these studies (Foley *et al.*, 2004; Guenette, 2014; Jones, 2011; Lephala *et al.*, 2008; Nelson, 2006; Sansoni *et al.*, 2016) have used Dr. Paula Stamp's Index of Work Satisfaction (IWS) tool to measure job satisfaction of the school nurses. In this study also, six dimensions were assessed using the same index. From motivators, three factors, viz. autonomy, task requirements, and professional status, were included, and from hygiene factors, pay, organizational policies, and interactions were looked at. Among the six variables examined in this study, professional status stood out the highest, followed by interaction, task requirements, and autonomy, all of which were significantly above the population mean. In contrast, pay and organizational policy had significantly lower mean scores, indicating dissatisfaction in these areas compared to others (all p -values < 0.05). This suggests that school nurses in Nepal feel honored to hold this position, and this recognition appears to have instilled in them a sense of professional pride.

The professional status of school nurses as a motivational factor is not only true in Nepal but also in other parts of the world, as indicated in the school nurse literature. Muluneh *et al.* (2022) assessed job satisfaction across nine components, including organizational policy, developmental opportunities, interaction (working relationships with staff), payment, autonomy, relationship with managers, job requirements, professional status, and working environment. Similar to the findings of this study, professional status was demonstrated as the highest-rated factor contributing to job satisfaction. Other studies have also identified professional recognition as a highly motivating factor (Guenette, 2014; Nelson, 2006).

Also, professional status and organizational policy were found to be the highest and lowest satisfying variables, respectively, among the six variables. This study also confirms this, indicating that these two variables are common to both the US and Nepal. Not only this, but the other four variables are close to each other in Nepal and the USA. In contrast, another study (Foley *et al.*, 2004) in the US employed the same theory and

tool. The results showed that autonomy was the most satisfied component, followed by interaction, organizational policies, professional status, pay, and task requirements. But in the hospital context, professional status was demonstrated as the highly satisfied variable, followed by interaction, autonomy, and task requirements, along with the least satisfied variables as organizational policies and pay (Bjørk *et al.*, 2007), which is in alignment with this very study and another recent study in Nepal (Tuitui *et al.*, 2025).

Liu *et al.* (2012) study on hospital nurses' job satisfaction indicated that satisfaction is a multifaceted issue influenced by various interconnected factors, including job involvement, autonomy, experiences of role conflict and ambiguity, job-related stress, compensation, and opportunities for advancement. In this study as well, there is no single factor contributing to job satisfaction, but rather a complex relational connection among several variables, making it challenging to identify any particular determinants for job satisfaction.

Autonomy is another factor that was identified as a satisfying factor in this study, and this also aligns with some other studies (DeSisto & DeSisto, 2004; Hasani, 2020; Lephalala *et al.*, 2008; Nelson, 2006; Sansoni *et al.*, 2016) though it is the fourth choice of job satisfaction variable among the school nurses in Nepal. Similarly, organizational policy was found to be the least chosen among Californian school nurses (Nelson, 2006) and hospital nurses in Italy (Sansoni *et al.*, 2016); the school nurses in Nepal also indicated the same in this study.

Organization policy and pay seem paramount for job satisfaction in the context of developing countries, including Nepal. They found fewer satisfying variables for school health nurses as indicated by this study and some other studies (Junious *et al.*, 2004; Lephalala *et al.*, 2008; Murrells *et al.*, 2008; Poudel, 2024). Juinous's qualitative study showed that school nurses' highest satisfying variable was autonomy, and the lowest satisfaction was pay. Similarly, another study (Poudel, 2024) with hospital nurses also revealed nurses' dissatisfying variables as job security, self-growth and development, salary, working conditions, and hospital environment.

Job security was reported as a key factor in school nurse satisfaction in Nepal according to this study. A study by Wilczyńska *et al.* (2016) in Poland also revealed positive relationships between job security and job satisfaction. As job security and salary are the key to their survival, and they are often guided by the organizational policy, serious attention is called for in these two variables so that school health nurses can make their

living with adequate pay, and the policy becomes favorable for their day-to-day work. Further, a recent study Zafra-Agea *et al.* (2025) also confirms that school nurses are more satisfied with pay than with other factors.

Aiken *et al.* (2012) reported the situation on nurse shortages and Japan had the highest levels of dissatisfaction among nurses (66%), followed by China (55%), South Korea (50%), the United Kingdom (42%), and Germany (17%). In England and Scotland, approximately one-third of nurses intended to leave their positions within a year, while over 20% of nurses in the United States expressed similar intentions. Notably, between 27% and 54% of nurses under the age of 30 across all surveyed countries were considering leaving their jobs within 12 months. Regarding the work environment, only about one-third of nurses in Canada and Scotland felt they had input in developing their work schedules, compared to more than half in the other countries. German nurses (61%) reported the highest satisfaction with opportunities for advancement, while nurses in the United States (57%) and Canada (69%) were more satisfied with their salaries.

In terms of the overall satisfaction level of the school nurses, only about half of them have a moderate level of satisfaction, indicating a similar situation to that found in other studies. A study by Tuitui *et al.* (2025) reported moderate level of satisfaction. Among the various factors assessed, professional status was the highly satisfied, whereas pay was the least satisfactory. Gautam *et al.* (2025) study in a private hospital, nurses' job satisfaction results indicated that the majority of nurses were less satisfied, mainly due to insufficient pay and job role, thus, stressed and looking for another job within or abroad the nation. Sharma G *et al.* (2023) study of private teaching health care workers (doctors and nurses) found the job satisfaction status during COVID-19 as 71.1% ambivalent, 18% satisfied, and 11% dissatisfied. Poudel (2024) study on hospital nurse reported 54.5% were satisfied and 45.5% were dissatisfied with their job. Thus, the satisfaction level of the school health nurse is not very encouraging in Nepal as indicated by this study and also some other studies (Rana & Shakya, 2021). Such dissatisfaction may lead to the intention of leaving the current job and migrating from Nepal.

As federalism has yet to be fully realized with clear policy guidelines for all three tiers of government, the organizational policy of the school health nurse program is also unclear and lacks transparency in all provinces of Nepal. This indicates policy gaps in areas such as recruitment, management, documentation, training, retention, supervision, and support for the school nurse program in Nepal (Government of Nepal, September 5, 2025). As the school nurses have seen these gaps closely and their experience also indicates the

same in this study, it seems obvious that they feel insecure in their job, which then might decrease their job satisfaction (Callea *et al.*, 2014).

The study found that job satisfaction among nurses is significantly influenced by several background characteristics. Nurses without children reported higher job satisfaction compared to those with children. However, in a study by Almalki *et al.* (2012) school nurses, child nurses reported being more satisfied with their jobs. Additionally, those with lower academic qualifications, in contrast, were studied by Almalki *et al.* (2012) highly educated nurses.

Nurses with more extensive work experience, and who perceived their training as adequate, were more satisfied with their jobs in this study. Nurses who have been working for more than two years have reported being happier (Mean = 3.17) than those with less than two years of experience (Mean = 3.12), indicating that the more they work in school, the more they are satisfied. Literature also depicted that more experienced nurses were more satisfied than less experienced nurses (Al Maqbali, 2015; Zafra-Agea *et al.*, 2025). More experienced nurses have clearer understanding of their role and responsibilities, and they recognize the severity of problems. They also have the skills to address the health issues. Interestingly, literature also shows that experienced nurses were less satisfied (Al-Alawi *et al.*, 2016; Lephalala *et al.*, 2008; Nabirye *et al.*, 2011) due to a lack of career advancement prospects, no future growth, promotion dead-end, or lack of advanced opportunities, and not being included in decisions or policy-making activities (Darvishmotevali & Ali, 2020)

Variables such as age, ethnicity, marital status, work setting, number of students served, and whether training was received did not show a significant relationship with job satisfaction. School nurses in Nepal are also highly respected by school stakeholders, including students, headteachers, teachers, administrative staff, and parents, as indicated by another impact study through a stakeholders' perception survey on school health and nutrition programs (Shrestha *et al.*, 2019).

Conclusion

Study findings indicates moderate level of job satisfaction of school nurses, with variations across specific dimensions of job satisfaction measured using the Index Work Satisfaction (IWS). Nurses reported higher satisfaction in motivation or intrinsic factors such as professional responsibility and meaningful interaction with students which contribute to students' health and learning participation with school health promotion.

However, dissatisfaction shows in several hygiene or extrinsic factors such as, contractual employment position, career advancement opportunities, salary and benefits, administrative support, lack of training and working facilities. Study results found the alignment with Herzberg's Two-Factor Theory demonstrating that, intrinsic motivators supported professional commitment, where as inadequate supported of extrinsic factors contributed dissatisfaction. However, it is needed to address the systemic issues through establishing permanent position, carrier development opportunities strengthen supervision mechanism and ensuring competitive remuneration, adequate training for enhancing job satisfaction and retaining school nurses. Finally, satisfied school nurses could enhance the effectiveness of school intervention and contribute to healthier learning environment for students across Nepal. This study emphasizes the need for policy reforms and stronger intersectoral collaboration between health and educational sectors for program sustainability of the "One School One Nurse" program in Nepal.

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