Original Research

Exploring Demographic Factors Influencing Indian Nursing Students' Willingness to Volunteer

Pradeepti Prashar [ID] and Dinesh Kumar Sharma

Himachal Pradesh University of Business School, Himachal Pradesh University, Summer Hill Shimla, India

Abstract

Objective: To investigate the demographic determinants influencing nursing students' intentions to volunteer during health emergencies in India, providing insights that can inform policy and educational interventions to enhance their engagement and effectiveness in crisis situations.
Methods: A comprehensive cross-sectional survey was conducted among final-year nursing students, utilizing an online self-administered questionnaire developed through an extensive review of existing literature. The collected data were analyzed using the SPSS software tool.
Results: Four hundred nursing students participated in the study. The analysis showed that age, marital status, location, family income, educational program, and district strongly influence volunteer inclinations. Although they face challenges, nursing students' desire to help during emergencies shows their dedication and importance within health care. Strategic assistance, flexible training, and recognition can increase volunteerism. Giving nursing students resources and support makes them confident, equipped, and motivated to respond to emergencies, improving community resilience and emergency health care.
Conclusions: This study enhances our understanding of demographic influences on volunteerism and informs strategies to foster a more robust and willing nursing workforce in India for future health emergencies. Future research should focus on understanding psychological factors in other states of India.

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Global public health security necessitates a comprehensive approach to managing proactive and reactive measures to mitigate the risks posed by acute health events that transcend regions and borders. Pandemics, health crises, and fragile health systems not only endanger lives, but also present formidable challenges to the global economy and security, ranking among the most critical issues faced today.[1] Addressing these challenges demands robust health sector management to ensure efficient health care system operations, regulatory compliance, and high-quality patient care. This task is further complicated by financial constraints, workforce shortages, regulatory complexities, technological integration, and the necessity of maintaining consistent quality and equitable access across diverse populations.[2] In India, these challenges are compounded by its ranking as the seventh most vulnerable country to climate extremes, adding another layer of complexity to its health emergency preparedness.[3] This vulnerability includes limited health care access, poor infrastructure, socioeconomic disparities, and environmental risks.[4] The COVID-19 pandemic also highlighted weaknesses in India's emergency response systems, prompting necessary reforms.[5] Moreover, the disjointed nature of Emergency Medical Services (EMS) is further complicated by unique challenges faced in states like Himachal Pradesh, where the hilly terrain and seasonal influx of tourists complicate logistical planning and emergency response efforts.[6] Additionally, climate-related incidents such as cloudbursts and landslides intensify these difficulties, placing additional strain on health care resources and complicating emergency preparedness and response.[7] In this context, volunteers emerge as crucial agents in bolstering community resilience during emergencies. Globally, health care worker shortages have exacerbated the strain on frontline workers, underscoring the pivotal role of nurses in providing essential care.[4,8] Nursing students, in particular, can serve as vital support during pandemics, disasters, and other crises, thus easing the burden on health care systems.[9] Studies showed that demographic variables significantly shape these intentions.[10,11] Understanding the factors influencing nursing students' volunteering intentions is crucial for enhancing health care responses in emergencies.

By exploring demographic determinants, we gain valuable insights into the motivations and barriers that nursing students encounter, ultimately strengthening the health care workforce and improving public health outcomes during crises. Age significantly influences volunteerism, with younger students often seeking to gain experience and enhance their resumes due to fewer personal responsibilities, while older students bring life experience and a deeper understanding of social issues, often volunteering for altruistic reasons, or to fulfill educational requirements.[12]

Marital status and family income also shape volunteer intentions, as married students or those with family obligations may have limited time to volunteer, whereas students from higher-income families typically have more resources to engage in unpaid work.[13] According to Hustinx et al.[14], individuals with fewer financial constraints are more likely to volunteer, highlighting the need for support systems for those facing economic challenges.[14]

Educational programs significantly impact students' views on volunteerism.[10] Wymer and Starnes[16] suggested that educational background influenced volunteer motivations,[15] with advanced students seeking roles aligned with their skills.[16] Moreover, the area in which students resided affected their exposure to volunteer opportunities and their perceptions of community needs. Differences in health care access and community support can influence volunteer activities, with students from districts with higher health care demands feeling a stronger call to volunteer due to community responsibilities.[17] Understanding these demographic variables is crucial for designing targeted volunteer programs that address the diverse needs and motivations of nursing students.

This investigation employed variables derived from the theory of planned behavior to forecast individuals' intentions to engage in volunteer activities. The study additionally examined various factors, including altruism, risk perception, and social capital. The aforementioned factors, in conjunction with additional elements, contribute to a broader and more multifaceted understanding of the motivations behind volunteerism. The Theory of Planned Behavior (TPB), pioneered by Ajzen, identifies key determinants of behavior—attitude, subjective norms, and perceived behavioral control—as crucial factors shaping nursing students' attitudes toward volunteering during health emergencies.[18,19] Gaston Godin's review highlights TPB's predictive accuracy in health care settings, with studies from Australia, Hanoi (Vietnam), China, Oman, and Malaysia reaffirming its applicability across diverse contexts.[20–26] Altruism also plays a pivotal role, driving voluntary actions among nursing students globally, supported by studies linking prosocial traits like empathy and generosity to active volunteering.[27–29] Risk perceptions, crucial in decision-making (including volunteering), involve evaluating potential harm against benefits.[30] Organizations enhance volunteer participation by addressing safety concerns and increasing transparency.[31] Studies demonstrate that social media usage enhances social capital and participation in social movements.[32,33] Additionally, platforms like Facebook influence volunteering and philanthropy views, highlighting the role of networks in aligning beliefs with actions.[34] Social networks facilitate relationships and enhance psychological well-being, particularly among students using platforms like WhatsApp.[35] Overall, social capital, including bridging social capital, significantly impacts individuals and students, promoting volunteerism and community engagement.

While volunteerism is essential in strengthening health care systems during emergencies, there is a notable scarcity of research in India on the demographic profile of nursing students and their intentions to volunteer, particularly when considering social capital alongside the TPB during health emergencies like disasters and pandemics. Although studies have examined these determinants in Western and European contexts, their findings may not translate directly to India due to its unique cultural, socioeconomic, and geographic attributes. The existing literature often overlooks India's specific challenges, including its health care infrastructure pressures from climate-related emergencies and a growing population. Thus, the objective of this study is to investigate how demographic factors influence the components of the TPB—

attitudes, subjective norms, and perceived behavioral control—as well as altruism, risk perception, and social capital, in shaping the volunteer intentions of nursing students. This research aims to fill this gap, offering insights that will inform policy and educational interventions tailored to the Indian context. The findings will enhance the theoretical understanding of volunteerism in India and contribute empirical data to the global literature, ultimately aiding in developing strategies to boost volunteerism among nursing students and improve public health outcomes during emergencies.

Methodology

Research Design

Setting, population, and sample size
Cross-sectional surveys were conducted among final-year BSc and MSc nursing students in 4 districts of Himachal Pradesh, chosen for their high concentration of nursing institutes. The total population included 1179 students, with a minimum required sample size of 363 (284 for BSc [N] and 79 for MSc [N]), it was calculated using the Qualtrics online calculator, using a 95% confidence level and a 5% margin of error.

The study instrument & data collection procedure
An online questionnaire was developed using Google Forms to assess how demographic factors influence volunteerism among nursing students. The questionnaire, informed by a literature review, included 38 questions: 6 on demographics, 29 measured on a 5-point Likert scale, 2 multiple-choice, and 1 open-ended question. The Cronbach's alpha was 0.877 for 29 items, indicating high internal consistency. Constructs such as attitude (0.859), subjective norms (0.851), and perceived behavioral control (0.773) showed high reliability. Intention (0.811), social capital (0.810), risk perception (0.749), and altruism (0.761) also demonstrated strong reliability, surpassing the 0.7 threshold.[36] From August to October 2023, 550 questionnaires were distributed via WhatsApp, achieving a 72.72% response rate, with 400 voluntary responses.

Ethical consideration
Ethical approval via email was secured from the participating institutions to ensure the confidentiality of the study. At the outset, the Research Degree Committee of the Faculty of Commerce and Management at Himachal Pradesh University approved the study. The authors assured the participants that their participation or withdrawal would not adversely affect their careers and implied their consent through voluntary responses to the electronic survey link. To safeguard anonymity, the authors intentionally avoided questions that sought personal details of respondents.

Data analysis
This study used a mixed-methods approach, incorporating both qualitative and quantitative analyses, with data processed using SPSS version 21. Violations of linearity and normality in the Kolmogorov–Smirnov and Shapiro–Wilk tests for dataset necessitate using nonparametric tests, such as the Mann–Whitney U and Kruskal–Wallis tests, to explore factors predicting volunteer intentions. Additionally, a word cloud is generated from open-ended responses to visualize and emphasize the frequency and significance of barriers to volunteerism.

Results

Demographic Characteristics

The dataset as shown in Table 1, comprising 400 participants, offers valuable demographic insights. A substantial majority (77.25%) are single, with only 22.75% being married. The age distribution indicates that most respondents (82.00%) are between 20 and 25 years old, 15.75% are aged 25 to 30, and a minor segment (2.25%) is over 30. There are no respondents under 20 years old. Regarding residential areas, 69.25% live in rural locations, while 30.75% are urban dwellers. Family income data shows that 41.25% earn less than Rs. 30 000 per month, 26.75% have an income between Rs. 30 000 and Rs. 40 000, 14.75% earn between Rs. 40 000 and Rs. 50 000, and 17.25% earn above Rs. 50 000. Educationally, 81.00% are in their final year of a BSc nursing program, while 19.00% are in their final year of an MSc nursing program. The respondents are geographically distributed as follows: 32.25% from Shimla, 13.50% from Solan, 14.00% from Mandi, and 40.25% from Kangra. This demographic profile reveals a predominantly young, rural, and single population, largely engaged in undergraduate studies, with diverse family income levels.

Volunteering Status of Nursing Students

Table 2 presents an analysis of the volunteering status among 400 nursing students, showing that 74.75% have participated in volunteer activities while 25.25% have not. The data examines various psychological and social constructs related to volunteering, revealing significant differences between students who have volunteered and those who have not. Nursing students who volunteered scored notably higher in several areas: attitude, subjective norms, perceived behavioral control, social capital, intention, and altruism. The η^2 (eta square) values indicate medium to large effect sizes, suggesting that volunteering status explains a substantial proportion of the variance in these constructs—14.4% for attitude, 21.6% for subjective norms, 17.5% for perceived behavioral control, 15.5% for social capital, 10.8% for intention, and 17.6% for altruism. However, there was no significant difference in risk perception, indicating that volunteering status does not affect how nursing students perceive risk.

Volunteering Willingness According to Situations Given

Table 3 shows 400 nursing students' willingness to serve in pandemics and disasters. 20.25% (81 respondents) are eager to volunteer during a pandemic, whereas 15.75% (63 respondents) are willing to help in disasters. Notably, 64% of 256 participants were willing to volunteer in both cases. Attitudes (ATT) and subjective norms (SN) differ somewhat between contexts (ATT: $P = 0.703$, SN: $P = 0.799$). Disasters increase perceived behavioral control (PBC pandemic: 197.60, disaster: 222.94; $P = 0.236$). Both events have consistent intentions (INT pandemic: 187.17, disaster: 185.75; $P = 0.786$). Risk perception (RP), social capital (SC), and altruism (ALT) are not significantly different (RP: 0.189, SC: 0.647, ALT: 0.925). Overall, attitudes and subjective norms are steady, although perceived control is greater in catastrophe scenarios, indicating small variations in nursing students' emergency volunteering.

Table 4 utilizes the Mann–Whitney U test and Kruskal–Wallis test to examine the variations in volunteering-related variables among nursing students from different demographic backgrounds. (Tables 1, 2, and 3 of annexure shows normality, reliability, correlation of data variables and measures used in study). The analysis

Table 1. Showing demographic profile of nursing respondents ($N = 400$)

Characteristics		*N*	Percentage (%)
Marital status	Married	91	22.75
	Unmarried	309	77.25
Age (years)	less than 20	0	0.00
	20–25	328	82.00
	25–30	63	15.75
	above 30	9	2.25
Residing area	Rural	277	69.25
	Urban	123	30.75
Family's monthly income (Rs.)	less than 30 000	165	41.25
	30 000–40 000	107	26.75
	40 000–50 000	59	14.75
	above 50 000	69	17.25
Education program	BSc (final)	324	81.00
	MSc (final)	76	19.00
Districts	Shimla	129	32.25
	Solan	54	13.50
	Mandi	56	14.00
	Kangra	161	40.25

Source: Primary Data.

Table 2. Table provides the mean rank for the question asked, "Have you ever volunteered in life?" (Mean Rank, $N = 400$)

		N	Percentage
Have you ever volunteered in life? ($N = 400$)	Yes	299	74.75 %
	No	101	25.25 %

		Mean rank	*P* value	Eta square
Attitude	Yes	243.62	0.000**	0.144
	No	72.85		
Subjective norms	Yes	214.94	0.000**	0.216
	No	157.75		
Perceived behavioral control	Yes	212.16	0.000**	0.175
	No	165.98		
Social capital	Yes	210.90	0.002**	0.155
	No	169.72		
Intention	Yes	207.75	0.030**	0.108
	No	179.02		
Risk perception	Yes	199.79	0.830	N.A.
	No	202.60		
Altruism	Yes	212.30	0.000**	0.176
	No	165.56		

Note: P value *$P < 0.05$, **$P < 0.01$.

Table 3 The table shows the mean ranks for different situations in which nursing students demonstrate their capability to volunteer (Mean Rank, N = 400)

			Frequency	Percentage
I am capable of volunteering in (N = 400)		Pandemic situation	81	20.25%
		Disaster situation	63	15.75%
		Both the situations	256	64%

	ATT	SN	PBC	SC	INT	RP	ALT
Pandemic situation	191.02	198.39	197.60	196.86	187.17	204.33	196.81
Disaster situation	204.52	192.67	222.94	209.42	185.75	210.72	204.36
Both the situations	202.51	203.09	195.89	199.46	208.35	196.77	200.72
P value	0.703	0.799	0.236	0.786	0.189	0.647	0.925

Abbreviations: ATT = Attitude, SN = Subjective norms, PBC = Perceived behavioral control, SC = Social capital, INT = Intention, RP = Risk perception, ALT = Altruism.
P value *$P < 0.05$, **$P < 0.01$.

Table 4. Table provides the mean rank for variables used to predict intention toward volunteerism according to different demographic variables (Mean Rank, N = 400)

Variables		ATT	SN	PBC	ALT	RP	INT	SC
Marital status	Married	210.59	208.16	178.60	201.99	46.18	197.91	199.68
	Unmarried	197.53	198.24	206.95	200.06	245.95	201.26	200.74
	P value	0.342	0.470	0.038**	0.888	0.000**	0.806	0.938
	Eta square	N.A.	N.A.	0.103	N.A.	0.734	N.A.	N.A.
Educational program	BSc(N)	199.13	184.18	163.36	197.76	196.40	190.02	187.27
	MSc(N)	206.32	270.09	358.82	212.19	217.97	245.19	256.90
	P value	0.624	0.000**	0.000**	0.324	0.138	0.000**	0.000**
	Eta square	N.A.	0.293	0.669	N.A.	N.A.	0.188	0.237
Residing area	Rural	195.84	202.86	195.81	199.49	197.09	197.55	204.23
	Urban	210.99	195.18	211.07	202.77	208.17	207.13	192.11
	P value	0.225	0.538	0.219	0.792	0.370	0.441	0.331
Mann–Whitney U-test, P value *$P < .05$, **$P < .01$								
Age	20–25	176.50	196.05	198.87	197.18	199.08	189.71	194.16
	25–30	320.13	207.37	206.87	212.11	207.57	239.02	214.38
	above 30	237.61	314.39	215.17	240.06	202.78	324.28	334.39
	P value	0.000**	0.008**	0.815	0.001**	0.862	0.00**	0.371
	Eta square	.201	.016	NA	.002	NA	.043	NA
Family income	less than 30 000	187.22	192.25	198.91	206.35	180.22	200.02	200.22
	30 000–40 000	212.33	191.95	181.62	200.37	206.76	201.56	194.02
	40 000–50 000	208.50	238.97	219.36	197.43	226.81	209.31	217.36
	more than 50 000	207.07	200.59	217.46	189.33	216.79	192.47	196.80
	P value	0.280	0.045**	0.109	0.771	0.018**	0.874	0.642
	Eta square	NA	0.0127	NA	NA	0.017	NA	NA
Districts	Shimla	187.10	171.16	183.88	215.57	201.52	166.17	173.88
	Solan	232.12	235.38	266.56	210.91	223.23	208.83	244.68
	Mandi	197.99	237.04	229.39	178.40	189.40	206.93	228.51
	Kangra	201.50	199.60	181.61	192.62	195.92	222.98	197.27
	P value	0.119	0.000**	0.000**	0.139	0.400	0.000**	0.000**
	Eta square	NA	0.040	0.064	NA	NA	0.038	0.038
Kruskal-Wallis test, P value *$P < 0.05$, **$P < 0.01$								

Abbreviations: ATT = Attitude, SN = Subjective norms, PBC = Perceived behavioral control, SC = Social capital, INT = Intention, RP = Risk perception, ALT = Altruism. Spearman's rho Correlation.
*$P < 0.05$, **$P < 0.01$.

Figure 1. Word cloud showing responses from nursing students regarding barriers to volunteering during health emergencies.

reveals significant differences based on marital status, particularly in PBC ($P = 0.038$, $\eta^2 = 0.103$) and risk perception (RP) ($P = 0.000$, $\eta^2 = 0.734$), indicating that married and unmarried nursing students experience these aspects differently, with married students showing distinct perceptions of control and risk.

Educational programs also play a crucial role in shaping students' volunteering perspectives. Significant differences are observed in SN ($P = 0.000$, $\eta^2 = 0.293$), PBC ($P = 0.000$, $\eta^2 = 0.669$), INT ($P = 0.000$, $\eta^2 = 0.188$), and SC ($P = 0.000$, $\eta^2 = 0.237$).

Age is another influential factor, impacting several dimensions: ATT ($P = 0.000$, $\eta^2 = 0.201$), SN ($P = 0.008$, $\eta^2 = 0.016$), ALT ($P = 0.001$, $\eta^2 = 0.002$), and INT ($P = 0.000$, $\eta^2 = 0.043$). Older nursing students generally exhibit more positive attitudes and stronger intentions to volunteer, possibly due to increased maturity and life experience.

Family income significantly affects SN ($P = 0.045$, $\eta^2 = 0.0127$) and RP ($P = 0.018$, $\eta^2 = 0.017$), with students from families earning between Rs. 40 000-50 000 demonstrating higher subjective norms and risk perception. This suggests that economic stability might influence their social expectations and risk assessment in volunteering contexts.

Furthermore, geographic location impacts students' volunteering intentions, with notable differences observed among districts. SN ($P = 0.000$, $\eta^2 = 0.040$), PBC ($P = 0.000$, $\eta^2 = 0.064$), INT ($P = 0.000$, $\eta^2 = 0.038$), and SC ($P = 0.000$, $\eta^2 = 0.038$) vary significantly, with students from the Solan and Mandi districts typically scoring higher in these areas. This indicates that regional factors, such as local culture or community engagement, might influence students' volunteering behaviors. These findings underscore the substantial impact of demographic factors on nursing students' attitudes and intentions toward volunteering.

What Stops Nursing Students From Volunteering?

The word cloud as shown in figure 1, reveals several barriers that prevent nursing students from volunteering during emergencies. *Lack of training* is a major issue, leaving students feeling unprepared. The *absence of incentives*, including financial compensation and formal *recognition*, discourages participation. *Family approval* and *financial constraints* further hinder volunteering efforts, while *study commitments* limit students' available time. There is also a perceived

lack of *government support* and *logistical challenges*, such as accommodation for relocation, which pose significant obstacles. *Communication gaps* with authorities, indicated by mentions of *no replies or comments*, add to the dissatisfactions among nursing students.

Discussion

Willingness to Volunteer

In the current study, the willingness of nursing students to volunteer during health emergencies is quite apparent. The majority of students not only expressed a readiness to volunteer but also reported having prior volunteer experience. This finding highlights a strong inclination among Indian nursing students to engage in emergency situations, suggesting they are well-prepared and committed to responding when needed. The positive mean scores for attitudes and intentions further reinforce this readiness. This aligns with existing literature, which consistently shows that nursing students are eager and prepared to volunteer during emergencies. Various studies also found a strong willingness among nursing students to contribute in critical situations, emphasizing their dedication to supporting health care efforts.[10,11,37,38]

Volunteers exhibited higher levels of attitudes, intentions, subjective norms, and perceived behavioral control compared to non-volunteers, emphasizing their prior involvement in volunteer activities and their preparedness to serve during crises.[26,39] While attitudes and subjective norms showed minor differences, perceived behavioral control was higher in disaster situations, attributed to the Indian Nursing Council's adoption of the WHO's emergency handling module for disasters, equipping Indian nurses to manage such situations more effectively compared to pandemics. Intentions, risk perception, social capital, and altruism are consistent across emergencies, highlighting that nursing students are generally prepared to volunteer, with nuanced readiness depending on the emergency type.

Moreover, the TPB variables used in this study reveal a positive correlation with volunteering intentions, corroborating findings from other research.[22] Those with previous volunteer experience are notably more inclined to volunteer again,[10,40] suggesting that past experiences play a significant role in shaping future volunteer intentions. Overall, the study illustrates that a significant portion of

the nursing students are prepared to assist during both pandemics and disasters. This willingness underscores the important role that nursing students can play in emergency responses and highlights the value of fostering and supporting their engagement in such critical situations.

Demographic Profile and Willingness to Volunteer

The study investigates how demographic factors influence TPB variables among nursing students, with perceived behavioral control and risk perception showing notable differences based on marital status.[38] Consistent with prior research attitude, subjective norms and perceived behavioral control are significant predictors of intentions.[41] Students who valued volunteering, had past volunteering experience, and were married, were more likely to intend future community service.[42]

The current study found that most variables, including attitudes, subjective norms, altruism, risk perception, and social capital, showed no significant differences based on the participants' residing areas. A demographic analysis revealed that the majority of participants were from rural areas, yet the residing area had no significant impact on the preparedness of nursing students for a pandemic. These findings are consistent with a previous study conducted in Eastern India, which also found no significant regional impact on nursing students' preparedness.[5] The study conducted in Spain revealed that nursing students, regardless of their regional backgrounds, demonstrated unwavering ethical and moral principles in their direct care of COVID-19 patients.[43] Their ability to set aside regional differences and maintain a unified commitment to patient care underscores the strength of their professional values and cohesion in the face of diverse contexts.

Moreover, significant variations were observed in subjective norms, perceived behavioral control, intention, and social capital across educational programs and districts, with BSc individuals ranking lower than MSc counterparts. As revealed by a study that seniority was associated with more positive attitudes, stronger perceived support, greater knowledge, and better access to resources and information about caring for SARS patients.[24] Past studies also indicate that second-year nursing students exhibit lower levels of confidence in their ability to volunteer during a pandemic.[40] In contrast, final-year medical and nursing students demonstrate a greater willingness to volunteer compared to their peers in earlier years.[10] This suggests that as nursing students progress through their program, their preparedness and confidence for volunteering in crisis situations tend to improve. However, some studies also indicate that willingness to volunteer tends to decrease with increased seniority,[38,44] which shows deviations from current results. Similar results were reported by previous studies which also showed that there were higher levels of perceived behavioral control among seniors compared to juniors.[10,45] Additionally, participants with bachelor's or postgraduate degrees showed greater willingness to participate in natural disaster responses than those with only a diploma.[46]

The study found that subjective norms varied significantly across educational programs and age groups, with senior students and older individuals experiencing greater social pressure and recognition to volunteer. Family approval and peer support were identified as influential factors in final-year nursing students' decisions to volunteer during the COVID-19 response.[13] This aligns with findings from Vietnam, where societal expectations are a key predictor of volunteer intentions among nursing students.[22] Similarly, Indian students, rooted in a collectivist culture, are more influenced by the values and perspectives of others than their Western counterparts.[47] This cultural orientation highlights the importance of community expectations and social approval in shaping their willingness to engage in volunteer activities.

Family income influences students' ability to volunteer by affecting their access to resources. Students from wealthier families often have more opportunities to volunteer, as they are less burdened by financial pressures.[48] Social and cultural factors, like family support, also shape volunteering behaviors. Volunteering often builds social capital and meets family expectations, especially for those from higher socioeconomic backgrounds.[49] However, some studies find that family income doesn't significantly impact volunteer intentions, highlighting a divergence in findings.[5]

Social capital was found to differ between BSc and MSc students, with senior students demonstrating more extensive social networks that can effectively encourage others to volunteer. This finding is consistent with the study by Llenares and Deocaris (2015), which emphasized the influential role senior students play in motivating new graduates and their peers to engage in volunteer activities.[50] The expansive networks and experience of senior students make them well-positioned to lead by example and foster a culture of volunteerism among their colleagues. Additionally, mass media plays a pivotal role in disseminating information during health crises, further enhancing the ability of these networks to spread awareness and mobilize volunteer.[51]

Barriers to Volunteer

In discussing the barriers to volunteering among nursing students, several significant challenges emerge. Study commitments are a major obstacle, with many students finding their academic responsibilities limit the time available for volunteering. This issue is supported by previous research, which highlights how educational demands can constrain students' ability to participate in volunteering.[11,15] The lack of government support further complicates the situation, revealing a gap in organizational backing and necessary resources for effective volunteering. Additionally, logistical challenges arise from the absence of living arrangements for those who may need to relocate temporarily.[40]

Financial barriers also play a crucial role in deterring students from engaging in unpaid volunteer work. The lack of financial incentives and the absence of participation certainly contribute to this reluctance.[38,40] These factors highlight the need for greater recognition and financial support to encourage student volunteers. Furthermore, insufficient training in emergency management underscores the need for enhanced preparedness, specifically in a pandemic situation. Many students feel unprepared to handle emergency situations, pointing to a gap in the current training programs.[11,37,38] Family dynamics also impact students' willingness to volunteer, with family approval often serving as a barrier. Concerns from family members regarding safety or conflicting priorities can influence students' decisions to participate.[37] Lastly, time constraints, driven by busy schedules and competing priorities, add another layer of complexity. These constraints reflect broader challenges in balancing academic, personal, and voluntary commitments.[52] By tackling these issues, it may be possible to increase nursing students' participation in volunteering during critical times.

Implications

Implications for Practice and Policy

In the Indian context, particularly in Himachal Pradesh, insights into the demographic and psychological impacts of volunteering can guide the development of initiatives aimed at enhancing

volunteer engagement and community cohesion among HCWs. The research has yielded numerous recommendations. Create customized training programs for nursing students that accommodate demographic disparities, such as separate courses for married and unmarried students, as well as advanced training for MSc (N) candidates. Implement age-specific engagement techniques that provide older students with leadership responsibilities and younger students with skill-building opportunities, as well as economic support mechanisms such as scholarships or financial incentives for students from low-income families. Customize volunteer programs to fit local cultural and community customs, as well as establish support structures for married students, such as flexible schedules and child care. Enhance educational programs with advanced modules and experience learning to improve subjective norms, perceived behavioral control, intention, and social capital. Engage families by discussing how family income and dynamics affect volunteering, as well as providing information and support to increase family participation. Conduct longitudinal studies to better understand how demographic factors influence volunteer attitudes and behaviors over time, as well as community-based research to match programs with local values and increase involvement. By implementing these recommendations, future studies and treatments can better accommodate nursing students' different needs, resulting in increased volunteer involvement and preparation.

Strength and Limitations

Employing both qualitative and quantitative techniques provides a deeper understanding of the concept of volunteering. The large sample size and the use of appropriate statistical tools strengthen this study. Investigating volunteerism among Indian nursing students contributes valuable insights to the existing body of knowledge, marking it the first of its kind in this demographic. However, the study has some limitations. It focuses solely on 1 state in India, which limits the generalizability of the findings. Researchers should conduct similar studies in other states to gain a comprehensive view of volunteerism, incorporating other psychological factors such as personality and emotions.

Conclusion

The comprehensive analysis of nursing students' demographic profiles and their volunteer intentions during health emergencies provides profound insights with practical implications. Demographic factors like age, marital status, residing area, family income, educational program, and district significantly influence volunteer intentions. Despite obstacles, nursing students' readiness and willingness to volunteer during emergencies highlights their dedication and crucial role in the health care system. Their high volunteer rates showcase a strong sense of duty and preparedness. However, academic pressures, lack of support, and financial concerns can impede participation. Addressing these challenges through strategic support, flexible training programs, and recognition initiatives can significantly enhance their volunteer capacity. Empowering nursing students with necessary resources and support ensures they are well-prepared, confident, and motivated to respond to emergencies, bolstering community resilience and strengthening emergency health care responses.

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