

Task-sharing: leveraging student nurses in low-resource settings



Original article

Hannah Scranton^{a,*}, Nicole Balinski^a, Melanie Schatz^a, Kelsey Sabo^a, Nirmala Pokharel^b, Sami Lama^b, Sapana Shrestha^b, Catherine Ling^a, Angela Chang Chiu^a

^aJohns Hopkins University, School of Nursing, Baltimore, MD 21205, USA

^bB.P. Koirala Institute of Health Science, Dharan 56700, Nepal

Received: 30 April 2025; Accepted: 29 May 2025; Published: 20 June 2026

Abstract: **Objective:** To observe 4 graduate students from Johns Hopkins School of Nursing (JHSON) who participated in an experiential educational initiative at B.P. Koirala Institute of Health Sciences (BPKIHS) in Dharan, Nepal, in January 2024.

Methods: The students engaged in diverse rotations across multiple wards, including community health, labor and delivery, emergency, psychiatric, and pediatric care.

Results: Observations revealed that nursing students in Nepal undertake significant responsibilities and assume the roles that are often reserved for more senior professionals in the U.S. The study highlights how task sharing and task shifting (TS/S) models, where tasks are redistributed among health care workers, including students, can address staffing shortages and enhance care delivery in low-resource settings and in times of crisis.

Conclusions: Despite some challenges such as the potential for increased workload and the need for clear role definitions, the TS/S approach offers a promising strategy for improving health care efficiency and providing valuable learning experiences. This commentary suggests that incorporating nursing students into TS/S models not only supports immediate health care needs but also prepares them for independent practice upon graduation. This reflective commentary could offer insights into optimizing health care education and delivery in both resource-constrained environments and broader health care systems.

Keywords: *global health • low-resource settings • nursing education • task sharing • task shifting*

© Shanxi Medical Periodical Press Co., Ltd.

1. Introduction

In January 2024, 4 Johns Hopkins School of Nursing (JHSON) graduate students embarked on an experiential educational opportunity to Dharan, Nepal. This experience is a collaboration between Johns Hopkins University School of Medicine (JHSOM) Global Health Leadership, the B.P. Koirala Institute of Health Sciences (BPKIHS), and the JHSON Center for Global Initiatives. The student team, consisting of two Master's and two Doctor of Nursing Practice students, piloted a nursing addition to the Johns Hopkins School of Medicine's

long-standing surgical and educational partnership with BPKIHS. The nursing students were welcomed by the community, engaged in a rich immersive-learning experience, and interacted with a diverse range of health professionals, from nursing students to internationally trained surgeons. The primary objective was to observe the 6 main wards, engage with peers, and identify opportunities for a meaningful partnership between JHSON and BPKIHS. Despite encountering several differences between American and Nepali facilities and practices,

How to cite this article: Scranton H, Balinski N, Schatz M, et al. Task-sharing: leveraging student nurses in low-resource settings. *Front Nurs.* 2026;2:193–198.

*Corresponding author.

E-mail: hscrant1@jh.edu (H. Scranton).

Open Access. © 2026 Scranton et al., published by Shanxi Medical Periodical Press. This work is licensed under the Creative Commons Attribution 4.0 License.

such as open wards and manual procedures, the students' most significant observation was the role of student nurses in effectively bridging gaps within Nepal's health care system. This commentary is written to share American students' experiential-learning experience in a foreign country, with a focus on the practical potential nursing students may have to contribute to delivering patient care and team support in resource-limited settings across the American health care system.

1.1. The host institution

BPKIHS is an autonomous university known for its medical excellence in the eastern region of Nepal. It serves as both a prominent tertiary hospital with a 700-bed capacity and over 130 daily admissions, as well as an educational institution with 4 colleges—medical, dental, nursing, and public health. The antenatal emergency department admits over 45 women each day, and the maternity ward sees an average of 15–20 vaginal deliveries per day. In the context of education, nursing students in the baccalaureate program undergo an 18-week placement in the maternal department, where they develop competencies to provide peripartum care autonomously.¹

In 2019, BPKIHS introduced the Bachelor of Science in Midwifery education program to enhance maternal and newborn health outcomes and increase access to reproductive health services across Nepal, supporting the WHO's Sustainable Development Goal (SDG) 3.1 to improve maternal health outcomes and increase the number of births attended by a skilled provider.²

2. JHSON student experiences

The JHSON students participated in 6 rotations (community health, labor and delivery, emergency department, psychiatric, and pediatric) over 3 weeks. On our first day, we watched several women go into labor one after another in the labor and delivery ward. As master's and doctoral nursing students from the United States, we were in awe watching midwifery and nursing students confidently deliver babies and suture episiotomies autonomously. With backgrounds in maternal health in the US, we had only seen doctors or midwives performing these tasks, while student nurses performed the least invasive tasks, such as checking vital signs or ambulating patients. We witnessed confidence and independence in nursing students within all the hospital wards and observed more senior students providing mentorship to less experienced students. In the antenatal ward, the nursing students cared for routine patients, allowing registered nurses to care for more complex patients (e.g., preeclampsic and gestational diabetes).

During our community health rotation, we accompanied students traveling home-to-home in rural communities as they gathered data and conducted health assessments. Faculty supervised students and provided feedback as needed, and students conducted educational public health presentations independently in the communities. One Bachelor's of Nursing student shared, "Without practicing with our own hands, we cannot learn anything." We saw how confident, capable nursing students filled care gaps in a low-resource setting. This is a stark contrast to programs in the US, where nursing students receive most of their hands-on training after graduation. This raised the question, "Are we utilizing student nurses as effectively as possible in the US healthcare system?"

3. The concept of task sharing and task shifting

To answer this question, we need to understand the concepts of task sharing and task shifting (TS/S), often used interchangeably but with subtle differences. Task shifting/sharing describes the intentional redistribution of tasks between health care team members, either completely transitioning responsibility of a task (task shifting) or sharing the responsibility of tasks between highly trained professionals, such as nurses or physicians, and those with fewer qualifications or training, such as technicians or students (task sharing).³ More specifically, task sharing is when lower-level health care workers, such as technicians or students, are trained to perform tasks that are in high demand to help share the workload and take the burden off one group of workers. For example, a technician or student trained to perform nursing tasks such as taking blood pressures or blood glucose point-of-care tests in the US is a model of task sharing. In Nepal, task sharing includes students trained to suture perineal tears post-vaginal delivery to support nursing staff. Task sharing enables collaborative completion of tasks and fluidity among providers with different levels of training.⁴ While the advantages of task sharing include reducing the burden on understaffed units and increasing patient safety by providing more trained professionals to meet patient needs, some disadvantages include a lack of clarity around defined roles and responsibilities.³

Where task sharing results in all trained teams sharing responsibility for the task, task shifting results in the responsibility for the task falling into the scope of a new group of workers.³ For instance, in task sharing, both the nurses and technicians would help to complete all point-of-care blood glucose tests on the unit, but in task shifting, all point-of-care blood glucose tests would

be completed by technicians and no longer fall under the responsibility of the nurses. Notable advantages of task shifting are clarity around roles and responsibilities, reducing the burden on doctors and nurses in overcrowded health care settings, and increased training and knowledge of health care workers.⁴ Reported disadvantages include burnout among health care workers who take on new responsibilities, often without their involvement in the solution-seeking process and/or without receiving a pay increase.⁴ Given that student nurses are there to learn and, in most settings, are not paid, these groups of health care workers are a viable option for both task shifting and task sharing.⁵

In times of crisis and emergency response, such as the global coronavirus disease 2019 (COVID-19) pandemic or health care worker strikes, the demand of communities far exceeds the supply of qualified health care professionals to safely meet their needs. When health care systems are understaffed and overburdened, task sharing with nursing students helps address short-term, immediate response needs.⁴ However, as a long-term solution to redistributing tasks and responsibilities clearly among roles, task shifting proves to be a more viable option for meeting the needs of the growing health care system burden.⁴ Application of TS/S of responsibilities to nursing students may leave them better prepared to work independently upon degree completion.⁵ Incorporation of students into the health care team during their education using this TS/S model allows for institutions to have a more robustly staffed unit while promoting competency-based learning for their students.⁴

3.1. Utilizing nursing students in low-resource settings

The conditions and infrastructure challenges around adequate health care delivery in Nepal are similar to those faced by other low-resource settings. Assessing the utilization of students through TS/S in this setting may provide further insights into improving efficiency and reducing the burden on health systems in similar settings. The health care system in Nepal is constrained by its shortage of both human and material resources, from adequately trained, available, and responsible staff to medicines, supplies, and equipment.⁶ Delivery of care is further constrained by a challenging geographical terrain, direct and indirect costs to individuals in rural communities, and peripheral care centers in rural communities that are chronically understaffed.⁶ Current availability of health care workers in these facilities averages 34 workers per 10,000 individuals, which falls short of the World Health Organization (WHO) recommendation of 45 providers per 10,000 individuals.⁶ The Alma-Ata Declaration was implemented in 1978 to improve care

delivery in Nepal, but the gaps in human resources in both urban and rural communities have not significantly shifted.⁶ Disasters such as the 2015 earthquake make these discrepancies more prominent, and rural populations suffer from a disproportionate burden of morbidity and mortality compared to more urban communities.⁶ This burden is linked to a lack of access to health care services in rural areas prior to the disasters and a dearth of care resources and emergency response afterward.⁶ The extensive integration of student nurses through a task-sharing model allows for graduating nurses to help expand the health care workforce and crisis response nationwide.

At BPKIHS, TS/S is evident in the antenatal and labor wards, where we witnessed nursing students' competencies in managing childbirth from start to finish autonomously, including repairs and newborn care. In contrast, these responsibilities are highly differentiated in labor wards in the US: the registered nurse performs venipuncture, medication administration, bedside care, and routine fetal monitoring, while doctors counsel patients, attend deliveries, and perform repairs; students primarily observe.

The implementation of both formal and informal TS/S models has occurred in other low-resource settings. In countries across Africa, the main reasons for TS/S were to optimize the utilization of existing health workers and to expand access to health services in rural areas.⁷ Intuitive task-sharing between nurses, students, and support staff has emerged in response to the "practical realities" of daily tasks in low-resource African hospitals.⁸ While senior staff in these hospitals stated in formal interviews that task delegation should be supervised, researchers observed that untrained or under-trained individuals frequently performed patient care autonomously. Furthermore, student nurses "perceived this as the norm, accepting it as the learning culture in public hospitals."⁸ Informal task sharing is not always associated with improved health outcomes. In Uganda, nurses were trained for 2 years as emergency care providers with the aim of becoming proficient in performing assessments, diagnosing, and initiating treatment to pediatric patients without physician supervision. Yet, the mortality rate nearly doubled when they practiced unsupervised (5.04%) vs. supervised (2.90%); in patients that were not severely ill, there was no significant difference in mortality rate (3.09% vs. 2.17%).⁹ Despite this specific finding, Zhao et al.⁹ found that in specialties such as pediatrics and pediatric emergency response, intentional task sharing is a viable means of filling provider gaps. Efficient, quality care can be achieved if task sharing is undertaken with proper supervision, teamwork, and specific consideration to the population and available resources.

3.2. Student nurses in times of crisis

Unexpected circumstances have created opportunities for BPKIHS to adapt its education and patient care practices. For example, COVID-19 forced evolution to education through virtual courses, personal protective equipment became a priority, the hospital faced a depleted workforce and extremely limited resources, and students took on more responsibilities in the wards. Furthermore, during the dengue fever outbreak in July 2023, BPKIHS established a temporary auxiliary unit to isolate and care for patients.¹⁰ These crises both required redistribution of staff, and TS/S was implemented across education and patient care to meet growing demands. BPKIHS faculty reported that students felt like they were contributing to the care environment through their participation, which positively impacted the students' learning experiences.

In times of crisis, student nurses worldwide play crucial roles in health care systems, offering essential support amid challenging circumstances.⁵ Deployed during disasters like hurricanes and global pandemics such as COVID-19, these students expand their traditional roles to alleviate pressure on strained health care systems through TS/S.⁴ For instance, following Hurricane Harvey, the University of Texas Health San Antonio School of Nursing dispatched teams of final-semester BSN students and faculty to Rockport, Texas, providing critical relief efforts over 6 months.¹¹ This involvement extended beyond clinical care to include community engagement, primary care assistance, educational initiatives, and first aid training, showcasing the versatility of student nurse contributions during crises.¹¹

Similarly, amid the COVID-19 pandemic in the UK, Spain, and Mexico, final-year nursing students assumed clinical roles in hospitals to mitigate staffing shortages.¹² While these experiences enhanced students' confidence and dedication to nursing, challenges, such as role ambiguity, inadequate preparation, and perceived limited impact on patient care underscored the complexities of integrating student nurses into crisis response efforts.^{13,14}

These initiatives exemplify the evolving relationship between nursing education and health care systems during emergencies, highlighting both the benefits and challenges of task-shifting and sharing models. They emphasize the need for structured support, clear role delineation, and comprehensive training to optimize student nurse involvement and ensure meaningful contributions to health care delivery during times of crisis.

4. Discussion

In low-resource, chaotic, or rapidly changing environments, it can be challenging to measure the effectiveness

of various interventions: who benefits, who is harmed, and to what extent? With the TS/S model, benefits for nursing students align with our observations at BPKIHS, including increased readiness for nursing practice upon graduation, opportunities for formal and informal leadership training, and development of a diverse and comprehensive nursing skill set. Benefits for the patient population include improved access to care through an increase in trained health care workers, while institutions benefit from decreased staffing costs. Transition of routine care from highly trained staff (e.g., nurses, midwives, and physicians) to students allows for specialized providers to be utilized more efficiently and can decrease burnout among staff. Unfortunately, there is a lack of data on the impact of TS/S on patient outcomes.

The available literature and our experience emphasize that task shifting is inevitable to lessen health care worker staff burden during times of crisis and emergency response, but this is meant to be a short-term solution only as it can lead to burnout over long periods of time and is not sustainable. We believe that given that most areas of the world suffer from chronic or frequent shortages of supplies and health care providers, important lessons in utilizing TS/S in times of crisis should be considered, with supervision and defined roles, for use as longer-term solutions. More research is needed to evaluate risks and benefits to patients, health care systems, and student nurses involved in TS/S models of care.

5. Conclusions

The opportunity to directly observe, learn, and participate in a low-resource medical setting at BPKIHS in Nepal will impact our careers forever. Witnessing the effective utilization of a TS/S model with nursing students was inspiring, demonstrating a creative way to effectively address care needs in low-resource settings and in crisis response. Formal implementation of TS/S in nursing education should be undertaken with intention while utilizing a conceptual framework that allows for data collection throughout to assess effectiveness, feedback, and refinement. Ideally, implementation of a TS/S model should benefit students, institutions, patients, and communities they serve. The available research indicates that implementation of a TS/S system in nursing education remains contingent upon available resources (faculty, equipment, and financial). TS/S demonstrates the most promise for successfully reducing health care burdens on providers and systems at large when focused on general practice skills rather than highly specialized areas. More research is needed to assess both the effectiveness of engaging nursing students in low-resource and/or crisis situations as well

as the safety issues that may arise from utilizing nursing students in this manner.

In both low- and high-income countries, TS/S models in nursing education may be a viable option to address low-resourced settings and times of crisis. This experience has highlighted areas of opportunity for task shifting and sharing among nursing professionals and students in the United States, promoting a more collaborative and efficient approach to patient care while increasing the health care workforce capacity and producing nurses that are better prepared to practice in real-world settings. This commentary reflects

and summarizes these observations, emphasizing the potential benefits of integrating such international experiences into nursing education to enhance adaptability and global health perspectives.

Ethical approval

Ethical issues are not involved in this paper.

Conflicts of interest

All contributing authors declare no conflicts of interest.

References

1. BPKIHS. 2025. <https://bpkihs.edu/about/introduction.php>. Accessed April 20, 2023.
2. World Health Organization. Maternal health. 2023. https://www.who.int/health-topics/maternal-health#tab=tab_1. Accessed April 20, 2023.
3. Orkin AM, Rao S, Venugopal J, et al. Conceptual framework for task shifting and task sharing: an international Delphi study. *Hum Resour Health*. 2021;19:61.
4. Yankam N, Silva A, McKinnon B. The impact of task shifting on healthcare delivery: a systematic review. *Glob Health Action*. 2023;16:2104653.
5. Hellman AN, Hurley S. The MOUNT model of student nurse deployment during times of disaster. *Nurs Econ*. 2019;37:246–249, 254.
6. Adhikari B, Mishra SR, Schwarz R. Transforming Nepal's primary health care delivery system in global health era: addressing historical and current implementation challenges. *Global Health*. 2022;18:8.
7. Okoroafor SC, Christlams CD. Task shifting and task sharing implementation in Africa: a scoping review on rationale and scope. *Healthcare (Basel)*. 2023;11:1200.
8. Nzinga J, McKnight J, Jepkosgei J, English M. Exploring the space for task shifting to support nursing on neonatal wards in Kenyan public hospitals. *Hum Resour Health*. 2019;17:18.
9. Zhao Y, Hagel C, Tweheyo R, Sirili N, Gathara D, English M. Task-sharing to support paediatric and child health service delivery in low- and middle-income countries: current practice and a scoping review of emerging opportunities. *Hum Resour Health*. 2021;19:95.
10. Menyango P. BPKIHS sets up separate dengue treatment facility on its premises. <https://kathmandupost.com/health/2023/07/23/bpkihs-sets-up-separate-hospital-inside-its-premises-for-dengue-patients>. Accessed June 2, 2024.
11. Sickora C, Salt RJ, Page TS, et al. Evolution of experiential learning opportunities for nursing students after natural disaster. *J Nurs Educ*. 2020;59:30–33.
12. Gómez-Moreno C, García-Carpintero Blas E, Lázaro P, Vélez-Vélez E, Alcalá-Albert GJ. Challenge, fear and pride: nursing students working as nurses in COVID-19 care units. *Int J Qual Stud Health Well-being*. 2022;17:2100611.
13. McSherry R, Eost-Telling C, Stevens D, et al. Student Nurses Undertaking Acute Hospital Paid Placements during COVID-19: Rationale for Opting-In? A Qualitative Inquiry. *Healthcare (Basel)*. 2021;9:1001.
14. Aristizabal P, Martínez-Abascal A, Macías-Romero JC, Nigenda G. Recruitment of nursing students in the context of the COVID-19 pandemic in Mexico. A rapid response to the health emergency. *Cien Saude Colet*. 2023;28:3003–3013 (in Spanish, English).