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Strategies to Minimize Health Worker Issues for Healthcare Delivery at Kurmitola General Hospital (KGH) Dhaka, Bangladesh

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ABSTRACT

A health worker is a dedicated professional who strives to promote and maintain individual and community well-being via healthcare, education, and support. The cross-sectional research, performed in 2023 at Kurmitola General Hospital (KGH), examines the sociodemographic and professional characteristics of 119 health personnel. The study included face-to-face interviews, written questionnaires, and checklists to decrease health worker difficulties and promote optimal healthcare delivery. The majority, aged 20-29 (57.1%), were female (87.4%), Muslim (82%), and had various educational backgrounds. Nurses accounted for 72%, with 46.2% having an HSC and 41.2% possessing a bachelor's degree. The findings found that 63.9% perceived enough medical personnel, while 36.1% reported shortages, highlighting possible areas for staffing enhancement. Comprehensive training programs received 95.0% recognition, demonstrating the institution's dedication to professional growth. Positive attitudes included 79.8% feeling accountable, 80.7% supporting technology integration, and 67.2% expressing positive workgroup dynamics. The statistically significant results ($p<0.05$) confirm the reliability of these observations. The KGH research highlights good trends and areas for improvement, highlighting the significance of continual education, responsibility, and cooperation in optimizing healthcare services and ensuring the well-being of health professionals.

1. Introduction

Globally, health is considered as a fundamental human right. The 1948 Universal Declaration of Human Rights and the 1966 International Covenant on Economic, Social, and Cultural Rights both have provisions for the protection of people's health, basic requirements, and medical care (Kuddus et al., 2022; Bari et al., 2023). The 1989 Convention on the Rights of the Child emphasises good conditions for education and nutrition, sickness prevention, and mortality reduction (Hossain et al., 2023a; Salam et al., 2024). Women's and child health are intricately intertwined since mothers

mold their progeny (Hossain et al., 2023b; Islam et al., 2023). The 1979 Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) seeks to protect women's health rights, remove gender-based health disparities, offer prenatal and postnatal care, and nutritional assistance (Alam et al., 2023a; Moniruzzaman et al., 2023). In addition to guaranteeing fair access to healthcare, disease prevention is essential. These international treaties emphasize the importance of health for people, families, and society (Shahen & Ahmed, 2020; Alam et al., 2023b).

Initially, Bangladesh's health-care system focused on providing curative treatments to improve the health of mothers, children, and newborns. Since the 1990s, as modern science and technology developed and the involvement of NGOs and United Nations organizations increased, the emphasis on health-care systems has progressively shifted to include both preventative and promotion services (Islam, 2014; Tufael et al., 2024). The 2008 Bangladesh World Health Report was issued in Almaty, formerly known as Alma-Ata, which is famous for the 1978 WHO declaration on basic healthcare. Despite several attempts to develop primary care, the declaration's aim of "Health for All" was not met (Rawaf et al., 2008; Rana et al., 2023). The health workforce includes those who provide health services or help administer healthcare facilities. This includes both healthcare professionals within and outside of the healthcare sector, such as registered nurses in hospitals or schools and administrative assistants in private medical offices. The term includes all professions involved in the delivery of healthcare services (Chakma et al., 2022).

Bangladesh has a variety of health workforce difficulties and challenges. Main health workforce issues are continuing shortage of trained health workers, maldistribution of them, skill mixed imbalance, weak knowledge base and accountability framework, traditional performance management systems, poor workforce monitoring mechanism, lack of supportive working environment, gender imbalance in senior posts, lack of comprehensive data, evidence-based policy making, and lack of organization or health facility review (Ministry of Health and Family Welfare (MOHFW) Bangladesh, 2015). Cameroon's health workforce is chronically understaffed and geographically fragmented, resulting in poor health outcomes in some areas. In over 70% of places, there are fewer than 1.5 health workers per 1,000 people (Sazzad et al., 2023). Migrants from the public sector compound the problem. Policies that address training, recruiting, retention, equitable deployment, and better health infrastructure are required to provide universal health care by 2035 (Tandi et al., 2015; Sunny et al., 2020). Blendon and Catherine's 2003 study highlighted health-care issues in rich nations, including the United States. Rising healthcare costs, treatment tiering, an aging population, a lack of insurance, restricted access to advanced technologies, and the emergence of new ailments are among the worries (Sunny et al., 2017). To solve these difficulties, a strong and successful healthcare system includes cost control, increased insurance coverage, preparedness, and stakeholder collaboration (Desroches & Blendon, 2003). Malaysian health care is shifting away from treating diseases and toward promoting well-being. The Ministry of Health (MOH), as Malaysia's primary provider of health services, may need to manage and mobilize improved health care services by improving health care financing systems and enhancing staff and

community participation (Thomas et al., 2011).

Bangladesh is struggling with major public health issues, including high rates of infant malnutrition, communicable illnesses, unsafe food, an increase in noncommunicable diseases, and HIV prevalence among high-risk groups (Kuddus et al., 2020; Kuddus et al., 2021). Furthermore, the effects of climate change and filthy living conditions worsen the situation. Furthermore, governance, accessibility, and cost difficulties in the healthcare system hamper the implementation of effective solutions (Muhammed et al., 2017).

2. Research Methodology

The study you mentioned was a descriptive cross-sectional study conducted at Kurmitola General Hospital's indoor department in Dhaka, Bangladesh. Kurmitola General Hospital in Bangladesh has 500 beds. The study concentrated on hospital-based healthcare personnel, including physicians, nurses, and technicians. The research sample size is 119 persons.

Face-to-face interviews and a self-administered written questionnaire were utilized to collect information. The questionnaire was semi-structured, suggesting that it had both open-ended and closed-ended questions. A checklist may also have been used to gather specific information throughout the inquiry. Both techniques aimed to acquire thorough information about healthcare workers.

The collected data was analyzed using the Statistical Package for the Social Sciences (SPSS), specifically version 26. SPSS is a statistical analysis software package that is frequently used in a number of academic settings. It helps researchers process and understand data in order to acquire useful insights. SPSS was most likely used in this study to analyze responses and create conclusions, including statistical summaries and connections based on data from the questionnaire and checklist.

3. Results and Discussion

3.1 Sociodemographic characteristics

Table 1 reveals that the majority of the study population, 68 (57.1%), was between the ages of 20 and 29, 37 (31.1%) were between the ages of 30 and 39, and 14 (11.8%) were between the ages of 40 and 49. The mean age of responders was 29.29 years, with a standard deviation of ± 6.969 years. Of the total number of responders, 104 (87.4%) were female and 15 (12.6%) were male. The majority of respondents, 97 (82%) were Muslims, 16 (13%) were Hindus, 5 (4%) were Christians, and one (1%) followed Buddhism. master's degree, and four (3.4%) earned an SSC or equivalent degree. The majority of respondents, 86 (72%) were nurses, followed by doctors (18%) and technicians (15%).

Variables	Parameters	Frequency	Percentags (n=119)	Statistics
Age(years)	20-29	68	57.1 %	Mean±SD (year) =29.29±6.969 (year)
	30-39	37	31.1 %	
	40-49	14	11.8 %	
Sex	Female	104	87.4%	
	Male	15	12.6%	
Religion	Muslim	97	82%	
	Buddhism	16	13%	
	Christianity	5	4%	
	Hinduism	1	1%	
Marital status	Married	70	58.8%	
	Unmarried	49	41.2%	
Educational status	SSC/Equivalent	4	3.4 %	
	HSC/Equivalent	55	46.2 %	
	Bachelor degree	49	41.2 %	
	Master’s degree	11	9.2 %	
Occupational status	Doctors	18	15%	
	Technologists	86	72%	
	Nurses	15	13%	

Table-1: sociodemographic characteristics among the respondents

3.2 Strategies to minimize health worker issues at KGH

The findings of the survey performed at Kurmitola General Hospital (KGH) provide a complete overview of several critical components of the healthcare environment and worker satisfaction.

Table-2: Strategies to minimize health worker issues

Strategies to minimize health worker issues		Frequency	Percentages (%)	Comparing with health worker challenges	P values
Enough medical staff	Yes	76	63.9%	Is Available health workers?	0.000
	No	43	36.1%		
Detail training program	Yes	113	95.0%		0.002

	No	6	05.0%	Are health worker adequately trained?	
Strong sense of accountability	Yes	95	79.8%	Is satisfied with overall management at KGH?	0.000
	No	24	20.2%		
Technology integration	Yes	96	80.7%	Is technology integration effectively integrated into healthcare service?	0.000
	No	23	19.3%		
Transparent communication	Yes	76	63.9%	Do health worker communicate and coordinate effectively?	0.001
	No	43	36.1%		
Team work	Yes	80	67.2%	Does increase population also a challenge?	0.003
	No	39	32.8%		

3.2.1 Available medical staff

In terms of medical personnel availability, a significant majority (63.9%) stated that there is adequate medical staff. This conclusion is critical for determining the hospital's capacity to satisfy the needs of patient care. On the contrary, 36.1% of respondents reported a shortage, indicating a possible area for improvement in personnel allocation or recruiting.

3.2.2 Health worker training programs

The results indicate a positive trend, with 95.0% of respondents acknowledging the availability of comprehensive training programs. This high proportion demonstrates that KGH places a high importance on continuing professional development for its healthcare personnel. The statistically significant p-value of 0.002 shows that there is a link between the existence of training programs and perceptions of health professional adequacy, underlining the need of ongoing education and skill development.

3.2.3 Accountability among health care personnel

A considerable number of respondents (79.8%) indicated a strong sense of accountability among healthcare personnel. A statistically significant p-value of 0.000 confirms this positive attitude, demonstrating a relationship between a strong sense of accountability and satisfaction with KGH's

overall management. This link emphasizes the need of accountability in creating a healthy workplace and providing quality healthcare services.

3.2.3 Technological integration

The majority of respondents (80.7%) had positive experiences with technological integration, indicating KGH's good integration of technology into healthcare services. The associated p-value of 0.000 reveals a statistically significant relationship between technology integration and overall satisfaction with healthcare services, highlighting the importance of technological advancements in enhancing healthcare provider quality.

3.2.4 Transparent communication

Transparent communication was identified as another crucial feature, with 63.9% of respondents confirming its presence. The statistically significant p-value of 0.001 stresses the importance of effective communication and coordination among healthcare professionals in promoting overall satisfaction and collaboration among healthcare team members.

3.2.5 Teamwork

Finally, a large number (67.2%) of respondents indicated a positive team dynamic. The statistically significant p-value of 0.003 underscores the relationship between collaboration and the perceived difficulties of a growing population. This finding shows that effective collaboration is seen as vital in dealing with the challenges posed by a rising patient population. The survey results shed light on KGH's healthcare environment's strengths and areas for improvement. The statistically significant relationships discovered show the interconnectedness of multiple factors in shaping health workers' experiences and perspectives, ultimately influencing the quality of healthcare services provided by the hospital.

4. Discussion

In the current study, the majority of respondents (57.1%) were between the ages of 20 and 29. The respondents' mean age was 29.29 years with a standard deviation of ± 6.969 years. This is similar to the findings of a study conducted by Khanal et al. (2020) on mental health impacts among health workers during COVID-19 in a low resource setting. The study found that the majority of respondents had a mean age of 28.20 (±5.80) years (Khanal et al., 2020). According to the current research, the majority of respondents (87.4%) were female and 12.6% were male. This study's finding is consistent with a study conducted on assessment of healthcare providers in Bangladesh and discovered that more than 80% of healthcare providers in rural areas are female (Himel et al., 2021). The current survey showed that the bulk of respondents, 82%, were Muslim, 13% were Hindu, 5 (4%), were Christians, and 1 (1%), were Buddhists. According to the 2022 census, 91.04% of Bangladeshis are Muslims, 7.95% are Hindus, 0.61% are Buddhists, 0.30% are Christians, and 0.12% are others.

In the present study, nearly half of the respondents were HSC/equivalent qualified and 41.2% were completed bachelor degree. In contrast, Balbay et al., (2011) conducted a study on "Burnout Status of Health Care Personnel Working in Oncology and their Coping Methods" and found that HSC were 39.9% and 28.8% were graduates. Dissimilarity with the current study might be attributed to variations in sample size, study population, and sampling procedure (Balbay et al., 2011). In this current study, the highest number of respondents (72% nurses) were found in a nearly identical study conducted on primary healthcare personnel challenges and barriers on the management of patients with multimorbidity in Albania and found 69% were nurses (Mechili et al., 2022) while a study on musculoskeletal complaints in healthcare personnel in hospital: an interdepartmental, cross-sectional comparison, indicated that 87.6% were nurses (Koyuncu et al., 2018). In this study, the majority of respondents, 63.9%, agreed that there was enough medical staff at KGH, which is similar to a study conducted on health care workers adherence to infection prevention practices and control measures: a case of a level four district hospital in Kenya, found 63.9% clinicians (Gichuhi, 2015). According to this study, 36.1% of respondents did not agree that there were enough medical staff at KGH, which is similar to a study on factors influencing patient waiting time in emergency department of khunyangu sub-county hospital, Busia Kenya, which found 36.1% of respondents disagreed that there were enough medical staff (Edward et al., 2021).

In this study, it was found that the majority of respondents (95%), provided feedback on a detailed training program, which is comparable to a study on physician burnout: contributors, consequences, and solutions C and vocational training of general practitioners in rural locations is critical for the Australian rural medical workforce, where they found 93-95% training reduce physician burnout and 87-95% of metropolitan origin/metropolitan training cohort GPs remained in metropolitan areas (Balbay et al., 2011; Mcgrail et al., 2016) This study discovered that the majority of respondents, 79.8%, agreed to a strong sense of accountability to reduce health worker issues, which is similar to a study, where they discovered that 79.8% had a high level of worry and a high level of responsibility at work (Sahashi et al., 2021).

In the present study found that maximum respondents 80.7% agreed that technology integration can minimize health workers issue, in which similar study on the potential impact of allied health professional telehealth consultations on health inequities and the burden of treatment and technology use by reproductive. He 80.7% agreed that telehealth will lower the stress of health workers, and 80.7% stated that it has made collaboration with colleagues simpler, while CD-ROMs, cassettes, and Web sites eliminate obstacles connected with distance, allowing health workers (Olatokun & Adeboyejo, 2009; Eddison et al., 2022). This survey shows that 63.9% of participants agreed with the notion that open communication helps reduce problems among healthcare professionals. A similar study conducted on inviting patients and care partners to read doctors' notes: opennotes and shared access to electronic medical records, found that most 63.9% of patients communicate with health care providers (Wolff et al., 2017). The current study found that most of the respondents, 67.2%, agreed that teamwork can minimize health worker issues. A similar study conducted on role of remuneration in retention of health workforce in a rural district

setting in Uganda" found that 67.2% of health workers practiced team work (Mugisha & Kajungu, 2015).

5. Conclusion and Recommendations

The Kurmitola General Hospital research reveals important factors that influence health professionals' attitudes and, as a result, the quality of healthcare services. Despite the fact that the majority of respondents indicated good sociodemographic characteristics and educational levels, the study identifies key areas for growth. Strategic workforce planning is necessary, as illustrated by the recently reported 36.1% medical staff shortage. Positive trends demonstrate KGH's commitment to continued professional development, with 95.0% of respondents aware of health worker training programs. Training programs and health workers' perceived sufficiency are associated ($p=0.002$), emphasizing the vital need of continued education. Health care professionals' high levels of responsibility (79.8%) and significant correlation ($p=0.000$) highlight their importance in building a good work environment and providing top-notch healthcare services. To maximize training programs, a thorough study of the most effective components should be performed in order to design future efforts. Increasing technology utilization, building workgroup dynamics, and performing frequent assessments are critical for improving healthcare delivery and worker satisfaction. These recommendations are intended to address particular areas for improvement highlighted in the survey, so contributing to the ongoing well-being of health professionals and the overall quality of healthcare services at KGH.

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Author Contribution

Each author took involved in the creation of the study design, data analysis, fieldwork, and execution stages. Every writer gave their consent after seeing the final work.

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A statement of conflicting interests

The authors declare that none of the work reported in this study could have been impacted by any known competing financial interests or personal relationships.

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