



The Socio-Demographic Characteristics of Patients Attending the Casualty Department of a Tertiary Level Hospital in Bangladesh

Dr. T.M. Shahidul Islam^{1*}, Dr. Afroza Sultana², Dr. Md. Habibul Haque³, Dr. Md. Azizar Rahman⁴, Dr. Evan-E-Alam Emtakamul Haque⁴

¹Assistant Professor, Department of Dental Public Health, Shaheed Ziaur Rahman Medical College, Bogura, Bangladesh

²Lecturer, Department of physiology, Shaheed Ziaur Rahman Medical College, Bogura, Bangladesh

³Assistant Professor, Department of Oral and Maxillofacial Surgery, Dental Unit, Rajshahi Medical College, Rajshahi, Bangladesh

⁴Dental Surgeon, Department of Dental, Shaheed Ziaur Rahman Medical College Hospital, Bogura, Bangladesh

*Corresponding Author

Dr. T.M. Shahidul Islam

Assistant Professor, Department of Dental Public Health, Shaheed Ziaur Rahman Medical College, Bogura, Bangladesh

Article History

Received: 18.11.2022

Accepted: 26.12.2022

Published: 30.12.2022

Abstract: *Background:* Casualty or emergency departments in medical treatment facilities are dedicated to offering prompt attention to patients who arrive without an appointment, either on their own initiative or through ambulance. Patients from a variety of socioeconomic backgrounds are admitted to the casualty to receive medical care. *Aim of the Study:* The aim of this study was to assess the socio-demographic characteristics of patients attending in the casualty department. *Methods:* This prospective observational study was conducted from January 2013 to December 2013 in casualty department, Shaheed Ziaur Rahman Medical College hospital, Bogura, Bangladesh. One hundred twenty patients and nine doctors of the casualty department were purposively selected and interviewed by structured questionnaire and facilities were observed through checklist. Data analysis was done using SPSS version 19.0 software. *Results:* 120 participants in this study, ages 14 to 60, were involved. Male participants made up the majority of the group (84.2%), while female participants made up roughly 15.8%. 20% of all respondents worked as farmers, followed by 18% of students, 17% of employees, 13% of housewives, and 6% of day laborers. The bulk of respondents earned between 4,000 and 10,000 BDT per month. *Conclusion:* More than two-thirds of the respondents were male, and more than three-quarters of them were in the age range of 20 to 30 years. This group represents the active age demographic and is more likely to be involved in accidents since they work and live outside. More over half of the patients at the casualty department throughout the research period were single. In the current study, more than one-fourth of respondents possessed a master degree or higher.

Keywords: Casualty, Registrar, DGHS, Logistical, Accident, Cross-sectional.

Copyright © 2022 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

1. INTRODUCTION

A medical treatment facility known as a casualty department or emergency department is

focused on providing immediate care to patients who arrive without an appointment, either on their own initiative or through ambulance. The majority

Citation: T.M. Shahidul Islam, Afroza Sultana, Md. Habibul Haque, Md. Azizar Rahman, Evan-E-Alam Emtakamul Haque (2022). The Socio-Demographic Characteristics of Patients Attending the Casualty Department of a Tertiary Level Hospital in Bangladesh. *Glob Acad J Med Sci*; Vol-4, Iss-6 pp- 312-316.

of hospitals have round-the-clock emergency rooms, while staffing levels may vary to match patient load [1]. While the number of hospitals running 24-hour EDS declined by 12% between 1994 and 2004, the yearly number of ED visits increased by 18% (from 93 million to 110 million) in the United States [2]. A seriously hurt patient was implied by the original term "casualty." The term "casualties" was primarily used in the military as a broad term for occupational accidents: following a combat, the dead, injured, and ill were grouped together as "casualties" [3]. Every patient must be treated by emergency departments (EDs) at any time and in any situation that is reasonable. Therefore, EDs must have surge capacity in order to accommodate both predictable (daily and seasonal variations) and unpredictable (mass casualty events) patterns in ED volume. Emergency room staffing is becoming more and more challenging everywhere. A vital safety net of skilled medical care and supervision is offered round-the-clock, seven days a week, by middle-level physicians (specialty registrars, specialty doctors, and trust-level physicians). Since injuries, acute illnesses, and accidents can happen at any time, certain people may require rapid medical attention. A hospital's emergency room is typically the first point of contact [4, 5]. Emergency departments must provide safety, secrecy, privacy, and dignity while providing enough room for all emergency team members, patients, and their caregivers. Sadly, there are several emergency departments that are packed every day [6]. The majority of hospitals provide round-the-clock emergency rooms, while staffing levels may vary to match patient load [7]. The right imaging equipment (CT, ultrasonography, and plain radiography) should be available in emergency rooms so that suspected life-threatening disorders can be investigated right away. Emergency department workers play a critical role in ensuring that patients' movements through the system are seamless. The MOH&FW, DGHS, and service beneficiaries all hold this hospital to a standard of "do the right thing" [8].

2. METHODOLOGY

It was cross-sectional descriptive research. The study took place from January 2013 to December 2013. The Shaheed Ziaur Rahman Medical College Hospital (SZMCH), Bogura, Bangladesh, served as the study's site (SZMCH). The populations for the current study were the service providers (doctors) and service consumers (patients) at casualty department throughout the data collection period. 120 patients and 9 doctors from the study location were interviewed during the data collecting period, a formal questionnaire, a checklist for

observations, and a record review. They were created in accordance with the factors derived from the study's objectives in order to gather data on nurses' postoperative infection control knowledge and practice. The respondents were given a thorough explanation of the study's purpose. Data were gathered from patients and service providers of SZMCH during working hours by creating the study instrument in light of objective and factors. With the respondents' permission and convenience, the researcher performed an in-depth interview at the site of the study. Statistical Package for Social Science (SPSS) 19.0, a computer application, was ultimately used to analyze the data based on several variables. Tables were created using the data that was readily available, and statistical techniques were used to analyze the data were deemed essential. All patients who were taking part gave their verbal consent. The whole intervention was conducted in accordance with the principles of human research specified in the Helsinki Declaration [9] and executed in compliance with currently applicable regulations and the provisions of the General Data Protection Regulation (GDPR) [10].

3. RESULT

Table 1 show that the respondents were grouped into five different age groups where the range of the age group was 14-60. Among them less than 20 years were 14(11.7%), in between 20-30 years were 37(30.8%), in between 31-40 years were 28(23.3%), in between 41-50 years were 27(22.5%) and more than 50 years were 14(11.7%). From the table 2, it appears that out of 120 respondents, 30.0% were earned less than 4,000 Tk/month, 59.2% respondents earned in between the range of 4,000 to 10,000Tk/month and the rest 10.8% were earned more than 10,000 Tk/month. Table 3 shows that, regarding treatment above mentioned all physical facilities were present in casualty department except waiting room. Figure 1 show that, among 120 respondents male were (84.2%) and female respondents were 19(15.8%). From the figure 2, it appears that out of 120 respondents, 36% of the respondents were graduate and above level of education, 17% were passed H.S.C. and P.S.C. educational level respectively, 8% respondents had no academic literacy and only 7% had passed J.S.C. educational level. From the figure 3, it appears that among 120 respondents occupation of 20% respondents was cultivation, 18% of students were students, 17% were in service, 13% were housewives, 8% were teachers and 6% were occupied as day labor.

Table 1: Distribution of the respondents according to their age (N=120)

Age	Frequency	Percent
<20 years	14	11.7
20-30 years	37	30.8
31-40 years	28	23.3
41-50 years	27	22.5
>50 years	14	11.7
Total	120	100.0
Mean ± SD=35.54±12.262		Minimum=14 Maximum=60

Table 2: Distribution of the respondents by monthly income (N=120)

Monthly income	Frequency	Percentage
<4,000 Tk.	36	30.0
4,000-10,000 Tk.	71	59.2
>10,000 Tk.	13	10.8
Total	120	100.0
Mean±SD=6,200±261.594		

Table 3: Distribution of physical facilities according to their availability in the casualty department (N = 120)

Items	Availability	
	Yes	No
Physical facilities	✓	
Sign post and display	✓	
Waiting room		✓
Ventilation and cleanliness of room and toilet	✓	
Sufficient space between two beds	✓	
Emergency OT	✓	
Emergency diagnostic facilities	✓	
Emergency blood supply system	✓	
Food supply time maintained	✓	
Proper keeping of record of patients	✓	
Health Education facilities	✓	

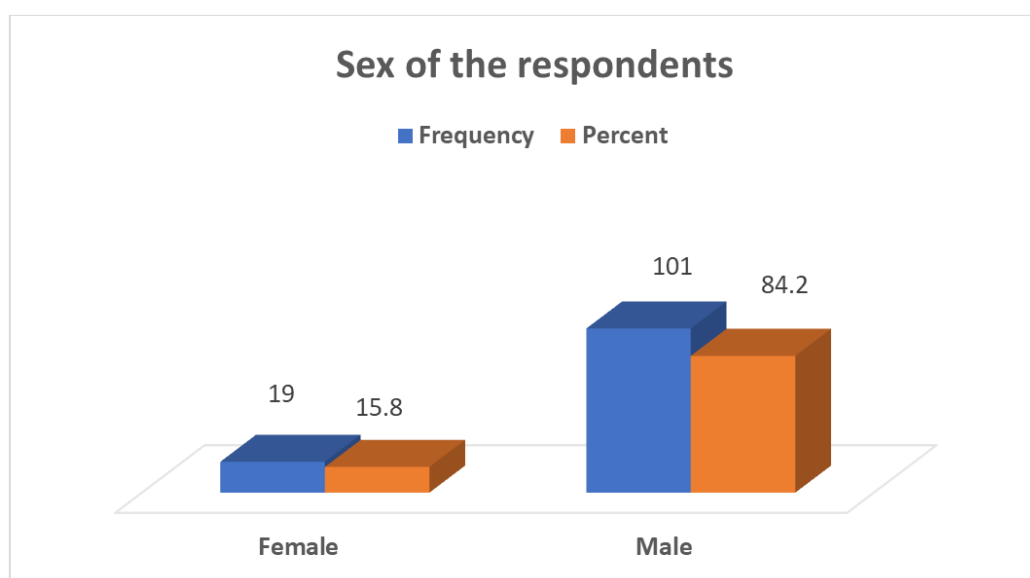


Figure 1: Distribution of the respondents according to their Sex

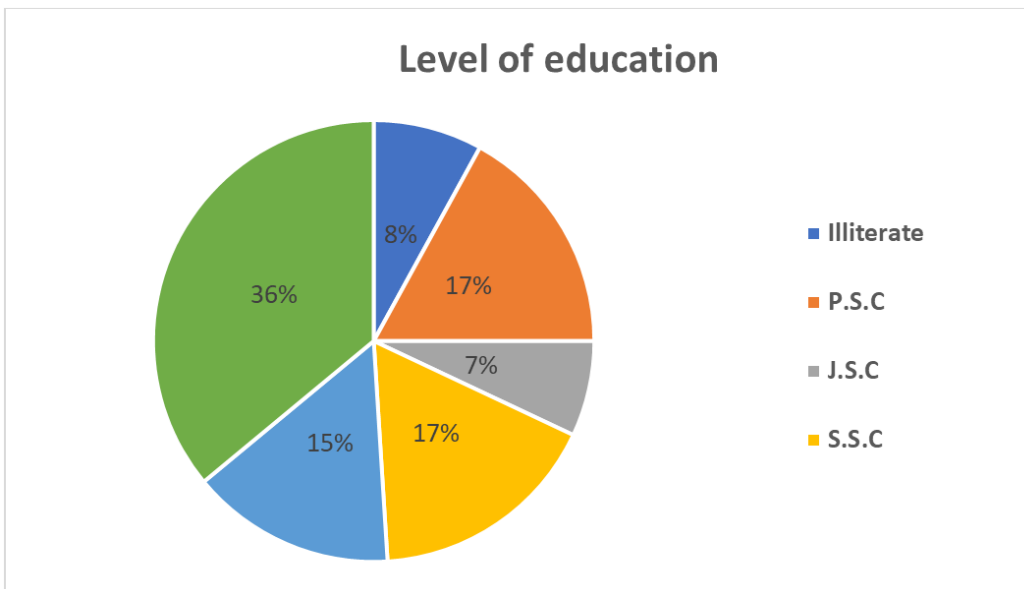


Figure 2: Distribution of the respondents according to their level of education

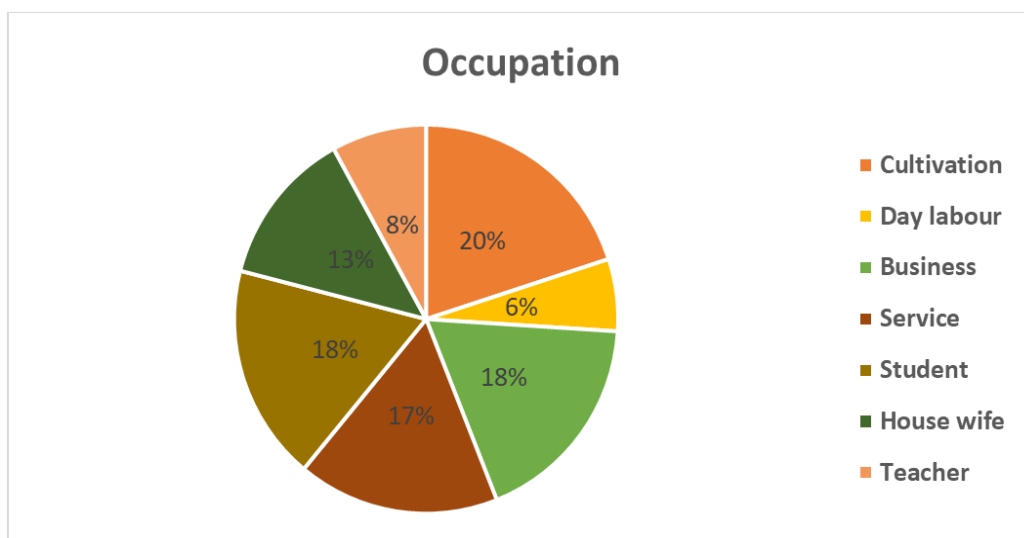


Figure 2: Distribution of the respondents according to their occupation

4. DISCUSSION

The aim of this study was to assess the socio-demographic characteristics of the patients attending the casualty department. Patients with both serious and mild injuries participated in this study. This indicates that the population was active throughout these years and was at risk for accidents, maybe as a result of their work in outdoor jobs [11, 12]. The bulk of them (30.8%) were between the ages of 20 and 30; next, around 23.3% were between the ages of 31 and 40. The majority (84.2%) of the respondents were male. Rahman H also demonstrated that the number of males was greater than females [13]. The majority (36%) of the respondents in the current survey had a graduate degree and/or a level of education above that; the next highest educational levels were H.S.C. and P.S.C., and a few had J.S.C. education levels and no

academic literacy. These findings were not in line with the findings of the study conducted by Hossain [11]. According to the results of the current study, the percentage of respondents by occupation was very consistent. About 20% of them were farmers, followed by students, businesspeople, teachers, and day laborers. Housewives were the most affected because they dealt with fire [14]. It demonstrates how certain professions are more prone to accidents and injuries. The majority of respondents (59.2%) said that their family's monthly income ranged from 4,000 to 10,000 taka, which was found to be very similar to Ahmed P.'s study's findings [15]. According to Kaiser FR, the average monthly income was 6042.23 taka [16]. Only 22.2% of them claimed that there was no ICU support, whereas the majority (77.8%) of them indicated that the patient's attendance was uncooperative and that there was an

insufficient supply of medication, suture material, and IV fluid. The majority of them (66.7%) were overcrowded, according to attendance [12]. With the exception of the waiting room, all physical and logistical resources in the hospital's casualty department were open for treatment.

Limitation of the Study

This was a single centered study with small sized samples. Moreover, the study was conducted at a very short period of time. So, the findings of this study may not reflect the exact scenario of the whole country.

5. CONCLUSION & RECOMMENDATION

The casualty department's medical staff as a whole concurred that there were insufficient staffing levels and access to all critical investigative facilities. To raise the level of service provided by the casualty department the amount of support staff should be increased in response to patient needs. Every member of the casualty support team needs specific training to develop their emergency management capabilities in order to avoid issues with the treatment of catastrophic injuries.

REFERENCES

1. Shaheed Ziaur Rahman Medical College. (2006) Wikipedia, the free encyclopedia.
2. Meng, A. T. S. (2007). Manpower Staffing, Emergency Department Access and Consequences on Patient Outcomes. [Dissertation] *Naval Postgraduate School Monterey, California*: 15-70.
3. Sakr, M., & Wardrope, J. (2000). Review: Casualty, accident and emergency, or emergency medicine, the evolution. *J Accid Emerg Med*, 17, 314-319.
4. Trzeciak and Rivers (2003). Emergency department overcrowding in the United States.
5. CIHI. (2005). Emergency department overcrowding in the United States.
6. Derlet and Richard (2000). Overcrowding in the nation's emergency departments: Complex causes and disturbing effects.
7. Emergency department. (2001). The free dictionary [online] Available from <ahref="http://encyclopedia.thefreedictionary.com/casualty+department">Emergency department [accessed 2 January 2014].
8. Local health bulletin. (2013). Shahid Ziaur Rahman Medical College Hospital. Health 82 Washington DC 41(1): 34 Bulletin 2013.
9. World Medical Association. (2001). World Medical Association Declaration of Helsinki. Ethical principles for medical research involving human subjects. *Bulletin of the World Health Organization*, 79(4), 373 - 374. World Health Organization. <https://apps.who.int/iris/handle/10665/268312>.
10. Voigt, P., & Axel von dem, B. (2017). "Enforcement and fines under the GDPR." *The EU General Data Protection Regulation (GDPR)*. Springer, Cham, 201-217.
11. Hossain, R. (2008). Management of casualty department of Dhaka Medical College Hospital. [Dissertation] *NIPSOM*, 61-74.
12. Zaman, K. M. (2004). Management of emergency services in some selected health 12 complex. [Dissertation] *NIPSOM*, 81-87.
13. Rahman, H. (1978). Study on waiting time in Diabetic patient attending BIRDEM [dissertation] *NIPSOM*, 78.
14. Bhuiyan, M. F. (1998). Study on selected patients (Burn) in Emergency Department of DMCH [dissertation] *NIPSOM*, 2.
15. Ahmed, P. (2008). Management of emergency department in a selected tertiary level hospital in Dhaka city. [Dissertation] *NIPSOM*, 50-68.
16. Kaiser, F. R. (1996). Willingness to pay fees on OPD patients of hospital for better services in DMCH [dissertation] *NIPSOM*, 109.