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Original Article

Socio-demographic and Disease Profile of the Patients Attending the Surgical Outpatient Department at a Tertiary Care Hospital

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ABSTRACT

Surgical interventions are crucial in treating various medical conditions. As cancers, cardiovascular diseases, and injuries rise, surgical impacts on public health grow. Effective surgeries rely on advanced instruments for tissue manipulation. Hospitals integrate outpatient and inpatient services, with patients often treated as outpatients before inpatient admission and follow-up. Hospital outdoor spaces can positively affect health outcomes. Surgical outpatient evaluations involve multidisciplinary preoperative assessments to determine fitness and optimise resource use. Tertiary care centres face challenges in managing high patient volumes and diverse conditions, necessitating continual adaptation and enhancement of practices. This study aimed to analyse surgical outpatient disease profile at a tertiary care hospital to enhance patient care and resource management. This cross-sectional observational study was conducted at Jalalabad Ragib-Rabeya Medical College Hospital in Sylhet, Bangladesh, enrolling 15,047 patients based on records from 01.01.2022 to 31.12.2023. Patients were evaluated and treated in the outpatient department of surgery, with those requiring surgery, mild cases given medication and advice, and others referred for further care. Inclusion criteria encompassed all ages and sexes with mild to moderate symptoms, while emergency cases and patients with gynaecological conditions or pregnancy were excluded. The largest age group was 25-49 years (48.5%) followed by 15-24 years (27.2%) and those over 50 (24.1%). Females comprised 68.8% of patients, with males at 31.2%. The most prevalent disease categories were anorectal diseases (14.9%), urology (12.6%) and breast diseases (10.6%). Additional common conditions included non-specific abdominal pain, gallbladder diseases, minor trauma, and post-operative follow-up cases. Most patients (54.8%) were managed with non-surgical advice/investigations, while 23.7% required admission. Surgical outpatient evaluations at a tertiary care hospital are crucial for managing diverse medical conditions, with anorectal and urological diseases being the most common. Over half of the patients required only medical advice or investigations, highlighting the efficiency of outpatient services in comprehensive patient management and resource utilisation in tertiary care settings.

Keywords: *Socio-demographic profile, Surgery, Outpatient department, Disease profile.*

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INTRODUCTION

Surgical intervention plays a vital role in treating many medical conditions, and the World Health Organization (WHO) estimated that 312.9 million operations took place in 2012 (across 66 member states of the WHO), an increase from the 2004 estimate of 226.4 million operations[1,2]. As the rate of occurrence of cancers, cardiovascular disease, and traumatic injuries increases, the impact of surgical

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intervention on public health systems will continue to grow. The hospital's outpatient department diagnoses and cares for patients who do not need to stay overnight. It is usually integrated with the inpatient services and staffed by consultant physicians and surgeons who also attend inpatients in the wards. Many patients are examined and treated as outpatients before being admitted to the hospital as inpatients. When discharged, they might need to attend the outpatient clinic for follow-up treatment[3]. Hospital outdoor space, a critical design element for healthcare facilities, has the potential to create an inviting, calming, and supportive environment. With its therapeutic qualities, this environment can significantly contribute to positive health outcomes for its users[4,5]. The surgical outpatient evaluation process typically involves a multidisciplinary approach. It includes pre-operative assessments. Preoperative assessments are crucial for determining a patient's fitness for surgery and identifying potential risks that might complicate the surgical procedure. These assessments often involve a thorough medical history review, a physical examination and various diagnostic tests such as blood work, imaging studies and sometimes more specialised investigations depending on the patient's condition and planned surgery[6,7]. The surgical outpatient evaluation also ensures the optimal use of hospital resources by identifying patients who require immediate surgical intervention versus those who can be managed conservatively or through elective procedures[8]. One of the significant challenges in surgical outpatient evaluation is managing the high patient volume while ensuring each patient receives comprehensive and personalised care[9]. Tertiary care centres are the referral hubs for specialised medical and surgical services, and understanding patients' experiences and perceptions can help identify areas for enhancement[10]. However, the evaluation of surgical outpatients at tertiary care hospitals involves managing a wide array of conditions across various specialities. It combines clinical expertise, technological integration, and efficient management practices to ensure optimal patient care[11]. As healthcare continues to evolve, the methods and practices of outpatient evaluations must adapt to meet the growing demands and complexities of patient care in tertiary settings.

This study was conducted to gather detailed knowledge about the socio-demographic and disease profile of the patients attending the surgical outpatient department, by which the profile of the attended patients can be mapped out. So that the hospital authority can make sufficient arrangements for better management and improve the outcome.

MATERIALS AND METHODS

This cross-sectional observational study was carried out in the outpatient department (OPD) of surgery at Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet. The study enrolled 15,047 patients based on medical records from 01.01.2022 to 31.12.2023. A medical officer evaluated patients presenting with symptoms, relevant investigations and physical examinations. Following this assessment, they were treated and assigned to various departments according to their diagnoses. Patients requiring surgical interventions were admitted, those with mild conditions were prescribed medication and given advice, and others were referred to the appropriate departments for further care. Patients of all ages and both sexes, mild to moderate signs and symptoms and minor trauma were included in the study. Patients with moderate to severe accidental emergency cases and patients with gynaecological disease and pregnancy were excluded. The variables collected were demographic information (age, gender), medical conditions (such as anorectal diseases, urological conditions, breast diseases, non-specific abdominal pain, gallbladder diseases, trauma, and post-operative follow-up cases), and management strategies (non-surgical management with advice and/or investigations, surgical interventions in OPD, hospital admissions for further care, and referrals to other departments). These variables were analysed using frequency and percentage to provide a descriptive overview of the patient's demographics, conditions, and treatment approaches. The data was retrospectively collected from hospital medical records, and ethical issues were maintained properly. The data were collected from the outpatient department and entered into the Statistical Package for the Social Sciences (SPSS, Version 26.0) for coding and cleaning. All data were organised into appropriate tables or graphs based on their characteristics. Each table and graph included a clear description to facilitate understanding. Descriptive analysis was used to calculate categorical parameters such as frequency and percentage.

RESULTS

The study evaluated 15,047 patients attending the outpatient department. The age distribution of these patients showed that the majority (48.5%) were between 25-49 years old. The second largest group (27.2%) was aged 15-24, followed by patients over 50, who made up 24.1% of the total (table-I). Figure-1 illustrates the gender distribution, revealing a higher proportion of female patients (68.8%) than male patients (31.2%). The study patients were classified based on their medical conditions and disease types. Only the initial chief complaint reported to the hospital was considered. The study found that anorectal diseases were the most prevalent, affecting 2,237 patients (14.9%). Urological conditions were the second most common, with 1,900 (12.6%) patients. Breast

Table-I: *Age distribution of the study samples, n=15047.*

Age (years)	Frequency	Percentage
<15	24	0.2
15-24	4099	27.2
25-49	7301	48.5
≥50	3623	24.1
Total	**15047**	**100**

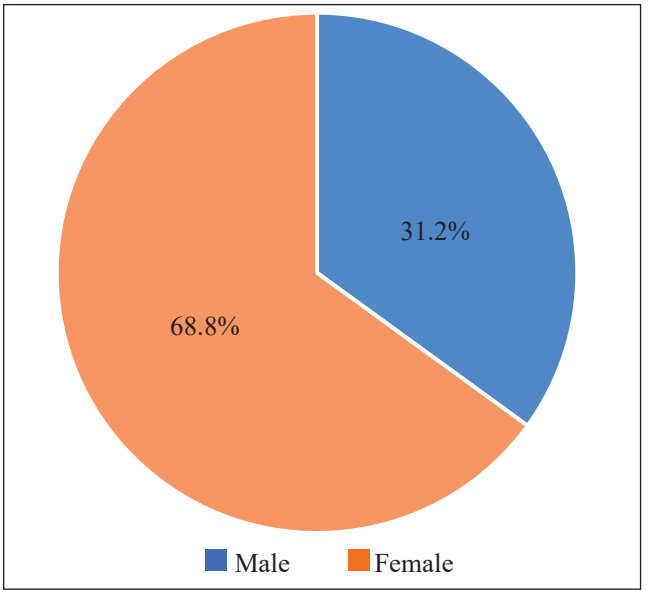

Figure-I: *Sex distribution of the patients, n=15047.*

Table-II: *Medical illness and disease type of the patients attending to the outpatients, n=15047.*

Type of diaseses	Frequency	Percentage
Anorectal diseases	2237	14.9
Urological diseases	1900	12.6
Breast diseases	1602	10.6
Non-specific abdominal pain	1423	9.5
Gallbladder with hepatobilliary and pancreatic diseases	918	6
Minor trauma	858	5.7
Medical diseases	810	5.4
Post-operative follow up cases	698	4.6
Stomach related diseases	462	3.1
Infection (SSI, cellulitis, abscess etc.)	433	2.9
Acute appendicitis/lump/abscess	315	2.1
Lipoma	302	2
Hernia	269	1.8
Sebaceous cyst	269	1.8
Burn	130	0.9
Acute abdomen	124	0.8
Lump abdomen	70	0.5
Varicose vein & PVD	53	0.4
Intestinal obstruction	37	0.2
Other surgical diseases	2137	14.2
Total	**15047**	**100**

Table-III: *Distribution of the patients according to outcome.*

Management	Frequency	Percentage
Non-surgical management	8248	54.8
Surgical management	1677	11.2
Admission	3572	23.7
Referral	1550	10.3

diseases were reported in 1,602 (10.6%) patients, while non-specific abdominal pain affected 1,423 (9.5%) patients. Gallbladder diseases were found in 918 (6%) patients, minor trauma in 858 (5.7%) patients and post-operative follow-up cases in 698 (4.6%) patients (table-II). Non-surgical management with advice and/or investigations was adequate for most patients, 8248 (54.8%), while 3572 (23.7%) necessitated admission (table-III).

DISCUSSION

Outpatient departments (OPDs) play a crucial role in the healthcare system. They serve as the initial point of contact for patients seeking medical attention without requiring hospital admission. They cater to a broad spectrum of medical needs, from routine check-ups and preventive care to managing chronic conditions and acute illnesses. The efficiency and effectiveness of OPDs are vital for maintaining patient satisfaction and overall healthcare quality.

The study included 15,047 patients, aged 25-49 accounting for 48.5% of the sample. These findings are consistent with those of other studies in which a significant proportion of patients were of an economically productive age[12-15]. The current study discovered that females (68.8%) were the majority of the patients (more than half) than males (31.2%), which is similar to the findings of other studies[13,16,17]. According to the examination of medical conditions and disease kinds, anorectal diseases were the most prevalent, involving 14.9% of patients. This frequency emphasises the need for specialist anorectal care and resources in outpatient settings. Urological problems had a significant frequency of 12.6%. These findings highlight the need for extensive diagnostic and management capabilities. Other prominent disorders included breast diseases (10.6%), gallbladder with hepatobilliary & pancreatic diseases (6%), trauma (5.7%) and a variety of other surgical diseases (14.2%), demonstrating a wide range of surgical demands among outpatients. Less prevalent but important disorders included acute appendicitis, lumps, or abscesses (2.1%), lipomas (2%) and burns (0.9%). The rarity of some disorders, such as varicose veins and peripheral vascular disease (0.4%), indicates that they may necessitate specialized referral services or have a lower

incidence in the study population. According to other studies, several diseases predominate in outdoor patients. Management strategies for the patients varied, with a majority (54.8%) being managed non-surgically with advice or investigations. This indicates that many patients may not require immediate surgical intervention but benefit from thorough diagnostic workups and medical management. Surgical management was necessary for 11.2% of the patients, while 23.7% required admission, reflecting the critical role of the outpatient department in triaging and managing both surgical and medical cases effectively. These data illustrate the wide variety of medical disorders seen in the outpatient department and the numerous management strategies used to treat them. The findings emphasise the necessity of a multidisciplinary approach in treating patients' health needs at a tertiary care institution.

LIMITATIONS

This study has several limitations. Firstly, the use of a non-probability convenience sampling method may lead to selection bias, as only patients who met specific criteria were included. Consequently, this approach might not accurately reflect the diverse patient population in the outpatient department. Additionally, the focus on a single tertiary care hospital restricts the study's scope, as variations in clinical practices and patient demographics may be present in other healthcare settings.

CONCLUSION

Based on the findings of this study at a tertiary care hospital's outpatient department, it is evident that surgical outpatient evaluations are pivotal in managing a diverse range of medical conditions. Anorectal diseases, urological conditions and breast diseases were the most prevalent, highlighting the demand for specialized outpatient care. Non-surgical management with advice or investigations was sufficient for over half of the patients, underscoring the outpatient department's role in comprehensive patient management. These insights emphasise the importance of efficient outpatient services in tertiary care settings to optimise patient care and resource utilisation.

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