

Client Satisfaction regarding Drug Dispensing Services in Tertiary Public Hospital during COVID-19 Pandemic

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ABSTRACT

Background: Client satisfaction is the degree of positive feeling that patients or clients having used a service. It indicates also the gap between quality-of-service expectation and the actual experience of the service provided from the patients' point of view. Patient satisfaction has become an integral component of the quality of health care services.

Objective: This study was conducted to assess the client satisfaction regarding drug dispensing services in tertiary public hospital during COVID-19 pandemic

Methods & materials: The study was a cross-sectional study, which was conducted at Dhaka Medical College Hospital, Dhaka, Bangladesh during the period from January to December 2021. The study included purposively selected 407 patients who were received prescribing drugs according to prescription in selected hospital. Data were collected by face-to-face interview with a pretested, semi-structured questionnaire and data were analyzed by current Statistical Package for Social Sciences (SPSS) 25 version. Associations of the categorical data were assessed by using Chi-square (χ^2) test. Prior to data collection, informed written consent was taken from each patient.

Results: The study revealed that males (44%) and females (56%) were portion with mean age of 33.71 years. Among 407 respondents, 89.4% (364) were dissatisfied and only 10.6% (43) of the respondents were satisfied with staff explanation on medication side effect, maximum 85% (346) of the respondents were dissatisfied and only 15% (61) of the respondents were satisfied with given counseling to proper storage of medication by the pharmacy staff, 76.9% (313) of the respondents were dissatisfied for attention during drugs supply and only 23.1% (94) of the respondents were satisfied for attention during drugs supply from pharmacy staff. Maximum 70.8% (288) of the respondents were satisfied and only 29.2% (119) of the respondents were dissatisfied for the medication storage of the dispensary. Mostly 98.5% (401) of the respondents were satisfied with labeling and packaging and rest of the 1.5% (6) of the respondents were dissatisfied and 61% (247) of the respondents were dissatisfied with availability of required medicine and only 39% (160) of the respondents were satisfied on availability of necessary medicine in dispensary. Among 407 respondents, almost all of them around 91.9% (374), of the respondents were satisfied for wearing mask in the COVID-19 pandemic and minimum only 8.1% (33) of the respondents were dissatisfied for wearing mask in the COVID-19, around 91.9% (374) of the respondents were satisfied and only 8.1% (33) of the respondents were dissatisfied for not maintain etiquette of coughing and sneezing courtesy during drug dispensing by another person. The overall satisfactions among the total respondents were, 66.1% (269) respondents satisfied 33.9% (138) of the respondents were dissatisfied for overall satisfaction during drug dispensing.

Conclusion: In conclusion, this study showed that the overall mean satisfaction level of clients of the outpatient's pharmacy was average. Many of the clients described pharmacist as polite and just about

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half the patients rated the pharmaceutical service as good.

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INTRODUCTION

In any country, the pharmacy sector is essential because it consumes a large number of health-care spending. As a result, ensuring simple access to a safe and consistent supply of pharmaceutical items and drugs is a challenge for governments. Bangladesh's pharmaceutical industry is one of the country's most promising. Satisfaction is a psychological state and can be said as the suitability of individual expectations and reality. Patient satisfaction is each patient's emotions, feelings, and perception problems and arises based on the patient's experience in receiving health services (Kebede et al, 2021). Client satisfaction is the degree of positive feeling that patients or clients having used a service. It indicates also the gap between quality-of-service expectation and the actual experience of the service provided from the patients' point of view. Patient satisfaction has become an integral component of the quality of health care services. It becoming a popular health care quality indicator in which pharmaceutical services are an essential part as it reflects the reality of services or care provided. (Ayalew et al, 2017).

The World Health Organization (WHO) labeled the epidemic a Public Health Emergency of International Concern on January 30, 2020, indicating that it has progressed to a new level with a greater fatality rate. In the WHO South East Asian Region, which includes Bangladesh, there were over 541,000 confirmed cases and over 16,300 deaths, resulting in a CFR of 3.02. COVID-19 instances were initially reported in Bangladesh in early March 2020, and by 15 June 2020, there had been over 90,600 cases with slightly over 1200 deaths, resulting in a CFR of 1.33 %. However, due to restricted testing capabilities, there is a significant under-reporting of instances, which raises concerns. (Haqueet all,2020). There are also fears that COVID-19 would overwhelm Bangladesh due to a lack of resources and staff, as well as high levels of infectious and non-infectious sickness. Along with other tactics and responses in a pandemic crisis, such as supplying emergency drugs according to treatment standards and resolving drug shortages, it may be necessary to provide and continue event-driven pharmaceutical care in a tertiary care hospital pharmacy (Kebede et al,2021).

Pharmacy services play a vital role in public in preventing and controlling the COVID-19 pandemic. In some low-source countries, health systems face many challenges in preparation for the Covid-19 pandemic (WHO, 2013). Pharmacists all over the world, particularly in developed countries, have responded quickly and intelligently to public health issues, such as establishing professional and service

protective and service guidance for pharmacy staff and services, creating and updating drug formularies, addressing drug shortage issues, and providing public education for client management (Surur et al, 2015). Client satisfaction is addressed through a variety of ways in various developing countries. Client happiness is recognized as a strategic variable and a critical factor of long-term profitability and performance in hospitals throughout the developed world. As a result, this study aimed to assess client satisfaction regarding drug dispensing service in a tertiary public hospital during the COVID-19 pandemic.

MATERIALS AND METHODS

Study design: The study was a Cross-sectional Study to the client satisfaction regarding drug dispensing services in tertiary public hospital during COVID-19 Pandemic.

Study setting: The study was conducted at Dhaka Medical College Hospital, Dhaka, Bangladesh. Those hospitals are the largest hospital in Dhaka city during the period from January to December 2021.

Sample size and sampling: The sample size was calculated by using the formula: $n = z^2pq/d^2$ where n=required sample size; $z=1.96$ at 95% confidence interval; $p=$ prevalence (59.4%) 0.59 ; $q=1-p$; d is the desired precision or error allowed in the study (set at 0.05). The calculated sample size was 407. Sample was included following non-randomized purposive sampling technique and using a standard written informed consent form.

Data collection: Data were collected by face-to-face interview with the help of pre-tested semi-structured questionnaire.

Data analysis: The data collected from the respondents were analyzed after completion of data collection, to maintain consistency; data were checked, edited manually and verified before tabulation. Data were coded, entered and analyzed in a computer. Data was analyzed by using the statistical software namely SPSS (Statistical Package for Social Sciences, version 25). Descriptive data were analyzed by simple frequency distribution (mean, standard deviation, percentage).

Ethics: Ethical clearance was obtained from the Institutional Review Board (IRB) of NIPSOM followed by permission was taken from the ethical clearance committee of Dhaka Medical College Hospital Dhaka, Bangladesh for data collection. Informed written consent was taken from the each patient informing purpose, procedure, risk and benefits

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of the study. Privacy of the patient and confidentiality of data were maintained strictly.

RESULTS

Table 1. Socio-demographic characteristics of the respondents (407)

Age Group (In complete years)	Frequency (n)	Percent (%)
18-20	44	10.8
21-30	152	37.3
31-40	119	29.2
41-50	52	12.8
>50	40	9.8
Minimum Age-18 years, Maximum Age-72 years, Mean Age-33.71±11.65		
Gender of the respondents		
Female	229	56
Male	178	44
Educational Qualification of the respondents		
Illiteracy/ sign only	44	10.8
Primary education	125	30.7
Secondary education	114	28
H.S.C	64	15.7
above H.S.C	60	14.7
Occupation of the respondents		
House wife	188	46.2
Service holder	74	18.2
Students	60	14.7
Day labor	45	11.1
Business holder	23	5.7
Retired person	17	4.2
Monthly family income of the respondents		
10000-20000 Thousand	289	71.0
21000-30000 Thousand	62	15.2
31000-40000 Thousand	32	7.9
41000-50000 Thousand	20	4.9
>50000 Thousand	4	1.0
Total	407	100.0

Table 1 shows that, out of 407 respondents, 10.8% (44) respondents were aged between 18-20 years, 37.3% (152) respondents were aged between 21-30 years, 29.2% (119) respondents were aged between 31-40 years, 12.8% (52) respondents were aged between 41-50 years, and 9.8% (40) respondents were aged above 50 years. Mean age 33.71 years, SD 11.658, Maximum age 72 and minimum 18 years and among them 56% (229) of the respondents were female and 44% (178) respondents were male. Whereas, 407 10.8% (44) respondents were illiteracy/ sign only, 30.7% (125) were primary education, 28% (114) respondents were

secondary education, 15.7% (64) were H.S.C and 14.7% (60) were above H.S.C. Here, 46.2% (188) respondents were house wife, 18.2% (74) of the respondents were service holder, 14.7% (60) respondents were students, 11.1% (45) respondents were day labor, 5.7% (23) respondents were business holder, 4.2% (17) respondents were retired person and among 407 respondents, 71% (289) monthly family income 10000-20000 thousand, and only 1% (4) of the respondent's monthly family income >50000 thousands BDT.

Table 2. Distribution of the respondents according to satisfaction on service-related information by drug dispenser (n- 407)

Respondents' satisfaction with courtesy by the drug dispenser	Frequency(n)	Percent (%)
Satisfied	368	90.4
Dissatisfied	39	9.6
Satisfaction with details explanation of medication by drug dispenser		

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Satisfied	191	46.9
Dissatisfied	216	53.1
Respondents' satisfaction with clear instruction by the pharmacy staff		
Satisfied	161	39.6
Dissatisfied	246	60.4
Respondents' satisfaction with explanation on medication precaution		
Satisfied	51	12.5
Dissatisfied	356	87.5
Respondents' satisfaction with explanation on medication side effects		
Satisfied	43	10.6
Dissatisfied	364	89.4
Respondents' satisfaction with counseling on proper storage of medication		
Satisfied	61	15.0
Dissatisfied	346	85.0
Paying attention during drugs supply by pharmacy staff		
Satisfied	313	76.9
Dissatisfied	94	23.1
Total	407	100

Table 2 shows that maximum 90.4% (368) of the respondents were satisfied with their courtesy and only 9.6% (39) were dissatisfied, 53.1% (216) of the respondents were dissatisfied with detail explanation of medication and 46.9% (191) of the respondents were satisfied, 60.4% (246), of the respondents were dissatisfied and 39.6% (161) of the respondents were satisfied for clear instruction about prescription during drug dispensing, maximum 87.5% (356) of the respondents were dissatisfied and only 12.5% (51) of the respondents were satisfied with staff explanation on medication precaution. Among 407 respondents, 89.4%

(364) were dissatisfied and only 10.6% (43) of the respondents were satisfied with staff explanation on medication side effect, maximum 85% (346) of the respondents were dissatisfied and only 15% (61) of the respondents were satisfied with given counseling to proper storage of medication by the pharmacy staff, 76.9% (313) of the respondents were dissatisfied for attention during drugs supply and only 23.1% (94) of the respondents were satisfied for attention during drugs supply from pharmacy staff.

Table 2. Distribution of the respondents according to satisfaction on physical facilities by drug dispenser (n- 407)

Respondents' satisfaction on proper medication storage of the dispensary	Frequency(n)	Percent (%)
Satisfied	288	70.8
Dissatisfied	119	29.2
Respondents' satisfaction with waiting area of the dispensary.		
Satisfied	298	73
Dissatisfied	109	27
Respondents' satisfaction for lighting condition in waiting area		
Satisfied	269	66.1
Respondents' satisfaction on availability of fan in waiting area		
Dissatisfied	138	33.9
Satisfied	200	49
Dissatisfied	207	51
Total	407	100

Table 2 shows that among 407 respondents, maximum 70.8% (288) of the respondents were satisfied and only 29.2% (119) of the respondents were dissatisfied for the medication storage of the dispensary, 73% (298) of the respondents were satisfied with the dispensary waiting area and only 27% (109) of the respondents were dissatisfied,

66.1% (269) of the respondents were satisfied and only 33.9% (138) of the respondents were dissatisfied for lighting condition of the waiting area and 51% (207) of the respondents were dissatisfied and 49% (200) of the respondents were satisfied for fan that is present in waiting area.

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Table 3: Distribution of the respondents according to satisfaction on dispensing facilities by drug dispenser (n- 407)

Respondents' satisfaction on arrangement of medication	Frequency(n)	Percent (%)
Satisfied	366	89.9
Dissatisfied	41	10.1
Respondents' satisfaction on the number of pharmacy staffs		
Satisfied	322	79.1
Dissatisfied	85	20.9
Respondents' satisfaction on appropriate labeling and packaging of medications		
Satisfied	401	98.5
Dissatisfied	6	1.5
Respondents' satisfaction on availability of required medicine		
Satisfied	160	39
Dissatisfied	247	61
Total	407	100

Table 3 shows that among 407 respondents, 89.9% (366) of the respondents were satisfied on arrangement of medication and only 10.1% (41) of the respondents were dissatisfied, 79.1% (322) of the respondents were satisfied on the number of pharmacy staff and only 20.9% (85) of the respondents were dissatisfied, 98.5% (401) of the

respondents were satisfied with labeling and packaging and rest of the 1.5% (6) of the respondents were dissatisfied and 61%, (247) of the respondents were dissatisfied with availability of required medicine and only 39% (160) of the respondents were satisfied on availability of necessary medicine in dispensary.

Table 4. Distribution of the respondents according to satisfaction on facilities to COVID-19 pandemic by drug dispenser (n- 407)

Respondents' satisfaction on maintenance of social distancing during drug collection	Frequency(n)	Percent (%)
Satisfied	70	17.2
Dissatisfied	33	82.8
Respondents' satisfaction on presence of different entry and exist way		
Satisfied	72	17.7
Dissatisfied	335	82.3
Respondents' satisfaction with cross ventilation in medicine collection area		
Satisfaction	143	35.1
Dissatisfaction	264	64.9
Respondents' satisfaction with the wearing mask in the COVID-19 pandemic		
Satisfied	374	91.9
Dissatisfied	33	8.1
Respondents' satisfaction for maintaining coughing and sneezing etiquette		
Satisfied	374	91.9
Dissatisfied	33	8.1
Total	407	100

Table 4 shows that, 82.8% (337) of the respondents were dissatisfied and only 17.2% (70) of the respondents were satisfied on maintenance of social distancing during drug collection, 82.3% (335) of the respondents were dissatisfied and only 17.7% (72) of the respondents were satisfied for presence of different entry and exist way for drug collection, 64.9% (264) of the respondents were dissatisfied and only 35.1% (143) of the respondents were satisfied for proper cross ventilation in medicine collection area. Among 407

respondents, almost all of them around 91.9% (374), of the respondents were satisfied for wearing mask in the COVID-19 pandemic and minimum only 8.1% (33) of the respondents were dissatisfied for wearing mask in the COVID-19, around 91.9% (374) of the respondents were satisfied and only 8.1% (33) of the respondents were dissatisfied for not maintain etiquette of coughing and sneezing courtesy during drug dispensing by another person.

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Table- 5: Distribution of the respondents according to overall satisfaction of the respondents on the pharmacy services during drug dispensing. (n- 407)

Overall pharmacy service satisfaction of the respondents during drug dispensing	Frequency(n)	Percent (%)
Satisfaction	269	66.1
Dissatisfaction	138	33.9
Total	407	100

Table 5 shows that among 407 respondents, 66.1% (269) of the respondents were satisfied 33.9% (138) of the respondents were dissatisfied for overall satisfaction during drug dispensing.

DISCUSSION

A descriptive cross-sectional study was conducted among 407 clients from January to December 2021 in Dhaka Medical college and Hospital, Dhaka. Respondents were selected purposive sampling method. The aim of the study to assess the clients' satisfaction regarding drug dispensing services in tertiary public hospital during COVID-19 pandemic. Proper pre-tested were done prior to data collection. Ethical clearance was obtained from IRB. Significant finding of the study after data analysis are discussed below-

Current study shows, 56% of the respondents were female, 44% of the respondents were male. A study by Debris et al, (2021 total of 410 chronic disease patients participated in a response rate of 99.5%. Out of total study participants, 215 (52.4%) were male, and 175 (42.8%) of the respondents were aged more than 45 years old. In this study showed that maximum number 90.4% (368) of the respondents were satisfied with showing courtesy and only 9.6% (39) were dissatisfied. A similar study express that, although patients felt most satisfied with the support of the pharmacy staff in answering patient questions, they were also not satisfied with the careful listening of the pharmacy staff to their customer requests (Adé, A.; Debroucker, 2020). The lack of careful listening from medical staff is a common problem in large hospitals when the number of patients is too large, and pharmacists do not have enough time to listen to each customer. However, the availability and active listening from medical staff were among the least satisfactory and most essential items of medical care (Sakti, D.H. et al).

In this study among 407 respondents, almost all of them around 91.9% (374), of the respondents were satisfied for wearing mask in the COVID-19 pandemic and minimum only 8.1% (33) of the respondents were dissatisfied for wearing mask in the COVID-19, around 91.9% (374) of the respondents were satisfied and only 8.1% (33) of the respondents were dissatisfied for not maintain etiquette of coughing and sneezing courtesy during drug dispensing by another person. The overall satisfaction among 407 respondents, 66.1% (269) of the respondents were satisfied 33.9% (138) of the respondents were dissatisfied for overall satisfaction during drug dispensing.

The research results here show that all five components affected outpatient satisfaction with the health insurance drug dispensing service. Each factor had a different impact on satisfaction; specifically, reliability had the strongest influence on outpatient satisfaction with pharmacy services. Patients reported feeling secure with the correct provision of the hospital pharmacists as the prescription with a clear origin and quality assurance, which leads to high satisfaction of outpatients (mean scores of 3.51, 3.53, and 4.25, respectively). Checking prescriptions and comparing the prescribed medication with the correct drug name on the dispensing label are essential strategies to reduce dispensing errors. Therefore, all medical staff at hospital must be trained and enhanced their professional knowledge frequently, as well as practice their skills and comply with the regulations on medical ethics before they are employed to work at the hospital. However, patients were the most unsatisfied with their liability variable of drug price not being clearly shown on the receipt. Trust was found to be the factor with the highest degree of influence on patient satisfaction and health outcomes (Birkhäuser, J., et al), so solving problems that have not yet brought satisfaction to patients should be focused on urgently. Patients feel dissatisfied with the quality of pharmaceutical services they provide, and the service is not in line with patient expectations.

CONCLUSION

In conclusion, this study showed that the overall mean satisfaction level of clients of the outpatient's pharmacy was average. Many of the clients described pharmacist as polite and just about half the patients rated the pharmaceutical service as good. However, client expressed dissatisfaction with unavailability of drugs. Clients suggested area to be improved to include, increase in number of staff, well behavior of the staff, and avoid discrimination between staff and public. The study shown that several clients were satisfied with many of pharmaceutical services and also dissatisfied with several services that like not maintenance of COVID-19 Pandemic etiquettes, social distance maintenance, wearing mask, coughing and sneezing etiquettes and so on. The low satisfaction levels reported should be further studied through qualitative studies to find the appropriate solutions in solving the problems. Consequently, the above-mentioned gaps need to be improved to reach an optimal level client satisfaction.

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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