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Responsiveness of the urban primary health care delivery system in Bangladesh: A comparative analysis

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Summary

This study analyses the responsiveness of outpatient care to assess the quality of urban primary health care among all 5 types of health care providers in Bangladesh, namely, the Urban Primary Health Care Services Delivery Project, the NGO Health Services Delivery Project (NHSDP), NGOs, private hospitals, and the Ministry of Health and Family Welfare (MOHFW). Other than some public-private comparisons, there is an absolute knowledge gap regarding responsiveness in urban health systems, particularly in the context of Bangladesh, and this gap motivates this study. The study used primary data collected from 810 randomly selected outpatients. The survey used a structured questionnaire on all 7 domains of responsiveness of outpatient care suggested by the World Health Organization. The estimated mean responsiveness score reveals that overall, approximately 33% of the patients rated the responsiveness of the system as poor. In reported responsiveness, the NHSDP was ranked at the top and the MOHFW at the bottom. The latter is quite expected. Overall, prompt attention and autonomy were the worst-performing domains, and choice of provider, dignity, and clear communication were the better-performing ones. The results suggest the need to improve the degree of responsiveness of all domains, especially those that are more concerned with access to health care, namely, prompt attention, dignity, clear communication, and confidentiality. The Ministry of Health and Family Welfare facilities should give additional consideration to promote prompt attention, autonomy, and quality of basic amenities. Private facilities should also provide additional

stress on improving prompt attention and autonomy. The non-therapeutic quality of health care needs to be emphasized in the medical education system. Further research based on household surveys could be worthwhile to measure responsiveness more comprehensively.

1 | INTRODUCTION

Bangladesh has experienced rapid urbanization over the years, both vertically (via increasing population density) and horizontally (via geographical coverage).[1] Since independence, the urban population has grown annually at a rate of approximately 6%. Consequently, the increase in the urban population is at least 6 times higher than that in the rural population.[2] Despite this rapid urbanization, attention to and a dialogue on urban health have not kept pace with the needs on the ground.

Urban local bodies (ULBs), by law, are responsible for providing primary health care to the people of the respective constituency. However, ULBs lack a basic infrastructure to provide primary health services. The Ministry of Health and Family Welfare (MOHFW) also has a lack of priority in providing primary health care in urban areas. Thus, there is a huge supply gap in the government provision of primary health care in urban areas. Additionally, crises have been acute because of the rapid growth of the urban population. Thus, urban populations need to depend on alternative sources of primary health care.

These sources can be broadly grouped as follows: (i) the Urban Primary Health Care Services Delivery Project (UPHCSDP) of the Local Government Division (LGD), funded by both the government of Bangladesh and donor agencies; (ii) outpatient facilities (ambulatory care) in the secondary and tertiary hospitals of the MOHFW; (iii) the NGO Health Service Delivery Project (NHSDP), funded by USAID and DFID; (iv) schemes initiated by NGOs, CBOs, and SBOs (eg, Marie Stopes Clinics, Red Crescent Society, Muslim Aid, BRAC Manoshi, Gonoshasthaya Kendra, Dhaka Community Hospital, Ad-din Hospitals, Sajida Foundation, Dushtha Shasthya Kendra, BIRDEM health care network); and (v) private hospitals/clinics/doctor chambers. We merged international NGOs and local NGOs/CBOs into 1 group because of the lack of sufficient numbers of NGO/CBO-run health facilities in some cities. In addition, as BIRDEM health care network is a society-based not-for-profit organization, we included it within the NGO/CBO group.

These are essentially the key providers of urban primary health care until anything results from the combined effort of ULBs and the MOHFW. Access to quality health care, which is a key dimension of universal health coverage (UHC), among urban populations largely depends on the responsiveness of these providers. Responsiveness is an indicator used to measure how well a health system performs relative to the nontherapeutic aspects of health care. Although responsiveness is a nontherapeutic factor, it is positively associated with health outcomes.

There are 8 dimensions of responsiveness: dignity (respectful communication), autonomy (involvement in decision making about personal health care), confidentiality (of information), prompt attention (waiting time), communication (clear explanations), social support, basic amenities (cleanliness), and choices of health care providers.[3,4] All of these 8 domains are used to measure the responsiveness of inpatient hospital facilities, but for ambulatory or outpatient services, 7 domains (all but social support) are used. These domains or broad areas of nonclinical care quality are relevant to all types of health care including personal and nonpersonal health services, as well as the population's interaction with insurers and other administrative arms of the health system.

Improving these nontherapeutic functions of a health system is important because they are an inalienable component to increasing people's well-being, which is a universal and ultimate mission of a health system. Some studies in developed countries explored variations in reported levels of health system responsiveness across countries[5,6]; others focused on the determinants of responsiveness.[7] There is a growing body of literature in the developing countries' context, and these studies basically estimate the country-specific responsiveness of health systems.[3,8-11]

The literature in the context of Bangladesh has mainly focused on perceived quality of care (which includes some dimensions of responsiveness) rather than responsiveness as a whole. For example, Andaleeb et al[12] examined the determinants of patient satisfaction with hospitalized care in some public and private hospitals in Dhaka City and some foreign hospitals using an exit interview method. Using both exit interviews and some qualitative tools, Gazi et al[13] explored the perceived quality of reproductive health care from the perspective of both users and nonusers at 14 facilities of the UPHCSDP and NHSDP in Sylhet City Corporation (ie, metropolitan) area. Although these studies included some dimensions of responsiveness to assess the perceived quality of care, there is a lack of studies exclusively on responsiveness in Bangladesh. Other than some public-private comparisons, there is also a lack of literature in the international context comparing the responsiveness of different channels of delivering health care. Evidence in this area of urban health research bears immense importance for informed policy discussions for improving the nontherapeutic quality as well as health outcomes of urban primary health care in Bangladesh. The absolute knowledge gap in this context of urban health research in Bangladesh motivated us to conduct this study. This study primarily aims to assess the level of responsiveness of key providers of primary health care delivery in urban areas; additionally, it compares the level of responsiveness among those providers.

The remainder of this study is organized as follows: Section 2 describes the methodology, Section 3 presents the results, and Section 4 provides the discussions and a conclusion.

2 | METHODOLOGY

2.1 | Data

The study analyses primary data collected in 2016 using an outpatient exit interview method through a multistage cluster sampling technique. As the UPHCSDP is an important provider of urban primary health care, we selected 3 old city corporations (Dhaka, Rajshahi, and Khulna) out of 4 where this project is currently being implemented for sampling. Altogether, the UPHCSDP is being implemented in 10 (out of 11) city corporations. Although Chittagong City Corporation (one of the old city corporations) was included in the earlier phases of the project, it opted out of the current phase. In the second stage, 3 large hospitals/clinics were selected from each kind of primary health care source in a city, yielding a total of 45 (5 × 3 × 3) centres from 3 cities. In the next stage, 18 outpatients were planned to be interviewed from each selected health centre, leading to a total sample of 810 outpatients. The patients were interviewed at the exit point of the selected hospitals by using a systematic random sampling technique in which every second patient was selected. The next patient was selected when someone declined to take part in the survey.

The standard questionnaire developed by the WHO to measure health system responsiveness[4] was customized and pretested to conduct the interviews. The first 3 sections cover the features of the health centre, socioeconomic and demographic conditions of the patients, and illness and treatment-related information. The fourth section includes questions that measure all the dimensions of responsiveness relevant to outpatient care. In addition to asking a specific question for each item under each dimension, we asked a question to obtain an overall rating. For example, we asked 4 questions rating 4 specific items related to "dignity" and then asked a question assessing the overall rating of dignity. We customized the health system responsiveness questionnaire developed by the WHO to design the questions and captured the data on a 5-point scale (eg, 1 = very good, 2 = good, 3 = moderate, 4 = bad, and 5 = very bad).

We also repeated some questions from the earlier sections to estimate the psychometric impact, ie, to measure the test-retest reliability. In reliability testing, the same respondents are asked the same questions at 2 different points in

time to measure the stability of the responses over time. Because this survey involved outpatient interviews, it was not possible to interview those patients again. Therefore, as an alternative, we incorporated selected questions for selected domains (dignity, clear communication, and confidentiality) a second time at the end of the questionnaire.

In addition, we asked an open-ended question to seek suggestions/comments from the respondents about their respective health centre. The questionnaire was finalized after incorporating the feedback received from pretesting sessions.

All research participants were fully informed about the procedures and risks involved in the research, and we solicited their consent to participate. We received ethical approval from the Institutional Review Board of Institute of Health Economics, University of Dhaka.

2.2 | Data analysis

We analysed the mean responsiveness score and psychometric impact. The responsiveness data were analysed using the WHO's analytical guidelines for measuring health system responsiveness[3] as mentioned above. For the questions with the response categories "very good", "good", "moderate", "bad", and "very bad", the percentage of people responding very bad, bad, or moderate was defined as poor responsiveness. Usually, an individual in Bangladesh chooses the moderate option if she/he likes to respond indifferently or not positively. Thus, we considered the moderate option along with very bad and bad for defining poor responsiveness. For questions using the response categories "no problem", "mild problem", "moderate problem", "severe problem", and "extreme problem", the last 3 categories were used to indicate poor responsiveness. Similarly, for questions using the response categories "extremely low", "low", "moderate", "high", and "extremely high", the last 3 categories were used to indicate poor responsiveness.

We estimated the mean responsiveness score for each domain by averaging the responsiveness score for all items across the domain. Finally, we composed the "overall responsiveness score" by taking the raw unweighted average score of all 7 dimensions. A higher score indicates poor responsiveness and vice versa. The responsiveness results were presented mainly by the 5 types of urban health providers and sociodemographic indicators, namely, area of residence, sex of the patients, age group, income, self-reported health, and education. The comments and suggestions of the respondents were analysed by themes.

We conducted a psychometric analysis to assess the validity, reliability, and feasibility of the survey instruments. This survey satisfied the feasibility condition because there was a 100% response rate with no missing values. To assess the validity of the survey instrument, we tested the construct validity for measuring unidimensionality, ie, the validity of the set of questions/items used to elucidate various responsiveness domains. We used confirmatory factor analysis (CFA) to meet the construct validity criteria assuming that each set of questions used to measure the respondents' experience with the health systems could explain each of 7 domains of responsiveness for ambulatory care. After identifying these 7 responsiveness domains, we performed the analysis to see whether all the questions of these 7 domains could be explained by a single latent construct called "responsiveness", ie, these 7 domains could be explained with a single measure. We used CFA instead of explanatory factor analysis (EFA) because we had an a priori assumption about the underlying dimensionality of the construct. To assess the internal consistency reliability or to assess the unidimensionality, Cronbach alpha coefficients were estimated for each domain. The coefficient ranges from 0 (lowest reliability) to 1 (highest reliability), and a higher coefficient indicates a higher unidimensionality of the items. Kappa statistic, which also ranges from 0 to 1, was used to measure the test-retest reliability.

3 | RESULTS

We successfully interviewed 810 outpatients (268 from Dhaka, 271 from Rajshahi, and 272 from Khulna city corporations) at the exit point of the 5 types of urban health facilities of interest. Although we were supposed to interview 162 outpatients from each category of the facilities, we interviewed 24 fewer in NGO facilities and 23 more in

private facilities. The underlying reason is that 1 private facility (Akij Medical Hospital in Khulna) was mistakenly selected as an NGO facility.

The patients themselves were the respondents for most (approximately 86%) of the cases. For children, the attendants were the respondents. The majority (72%) of the patients were women. Furthermore, the majority (more than 60%) of the patients were of reproductive age, and most (78%) were married. Overall, approximately 41% of the patients had secondary-level education, and the same proportion (23%) of patients had primary and secondary plus education. The majority (65%) of the patients were nonearners irrespective of the type of facilities visited and their place of residence. The concentration of the poorest clients was higher (31.5%) in the public facilities than in any other types of facility. Approximately one-fifth of the patients visited for maternal care. Quite a large proportion of the patients had general cough, cold, and fever (12.5%). The majority (56% and 58%, respectively) of the people who visited UPHCSDP and NHSDP facilities reported their health status as "good", while those who visited MOHFW (57%), NGO (52%), and private facilities (54%) reported their health status as "poor". We asked each respondent to rate her/his health status on a 5-point scale compared to people of her/his age. Thus, it appears that relatively more severe patients preferred visiting MOHFW, NGO, and private facilities.

The median duration of illness of the patients was 15 days. Patients with a relatively longer duration of illness visited NGO/SBO-based facilities, and those with a shorter duration of illness visited UPHCSDP and NHSDP facilities. On average, the patients needed 25 minutes to reach the facility. In terms of time spent reaching the facility, the UPHCSDP and NHSDP facilities were relatively close, and public, NGO, and private facilities were relatively far for the patients. More than one-fourth of the patients visited other facilities before visiting the most recent one, and this rate was slightly higher for those who visited private facilities.

The majority (55%, 69%, and 62%, respectively) of the patients who visited UPHCSDP, NHSDP, and MOHFW facilities were prescribed only medicine as treatment. However, for those who visited private and NGO facilities, the majority (58% and 51%, respectively) were prescribed both medicine and diagnostic tests. Discrimination, as perceived by the patients, was quite low in all types of facilities apart from MOHFW facilities. Approximately 25% of the patients reported that they had perceived some degree of discrimination, and most (88%) of them reported that they had perceived a high degree of discrimination.

More than three-quarters of the patients, irrespective of the type of health facility, believed that the providers were proficient in providing health care. More than two-thirds of the patients in all categories of facilities except the MOHFW reported that they were satisfied with the care they had received. Out of those who visited MOHFW facilities, 55% were satisfied with the care they had received. Apart from private facilities, over 80% of the patients of all health care facilities reported that the existing fees charged were reasonable. In the private facilities, approximately half (48%) of the patients reported that the fees charged were not reasonable.

We asked the respondents to rate the domains on a 5-point scale based on their importance (ie, "absolutely not important", "slightly important", "quite important", "important", "very important"). More than two-thirds of the patients in all categories of facilities gave more importance (ie, responded "important" and "very important") to all the domains. Dignity was top-ranked (approximately 95% of the respondents indicated more importance for dignity) followed by clear communication, confidentiality, prompt attention, and choice of providers. Autonomy was ranked on the bottom, with approximately 78% considering this domain to be more important.

In the open-ended part, the most notable comments were interference of an unofficial person in the MOHFW facilities, the prescription of unnecessary tests by private providers, high costs for diagnostic tests in private facilities, lack of experienced doctors in NHSDP and UPHCSDP facilities, and the need to modernize lab facilities in NHSDP and UPHCSDP facilities.

Approximately one-third of the patients who sought outpatient care from different categories of urban health facilities reported poor health system responsiveness (see Table 1). The reported poor responsiveness was quite higher in Dhaka City Corporation (34.6%) than in Rajshahi City Corporation (30.8%) and Khulna City Corporation (27%). However, the differences were not statistically significant. Table 1 shows that the patients who visited MOHFW facilities were more likely to report poor responsiveness (48.8%), and those who visited NHSDP facilities

TABLE 1 Percentage rating responsiveness as poor (represented by percent of respondents who rated the domain as "moderate", "bad", or "very bad") for different domains by the type of urban health facility

Domain	Type of Urban Health Care Facilities					Total (%)
	UPHCSDP (%)	NHSDP (%)	NGOs/CBOs/ SBOs (%)	MOHFW (%)	Private Hospitals/ Clinics (%)	
Prompt attention	41.2	31.6	48.3	67.6	68.2	53.5
Dignity	16.7	14.9	23.2	35.8	24.3	23.0
Clear communication	19.2	19.6	24.0	44.1	30.9	24.1
Autonomy	55.8	55.0	50.0	60.3	68.5	58.4
Confidentiality	19.3	11.0	20.3	51.2	21.4	24.7
Choice of provider	7.2	4.7	8.9	15.8	8.3	9.0
Quality of basic amenities	30.9	22.5	39.9	66.5	42.8	40.5
Overall	27.2	22.8	30.7	48.8	37.8	33.3

The value of N was not presented because of using raw unweighted average score for each item and domain.

were more likely to report good responsiveness (77.2%). More precisely, the likelihood of reporting responsiveness of MOHFW facilities was significantly (P value $\leq.05$) lower than the likelihood in UPHCSDP (27.2%) and NHSDP facilities (22.8%). However, there were no significant differences in reported responsiveness across the other types of health care facilities. If we rank the health facilities based on overall responsiveness score, the NHSDP was at the top and MOHFW was at the bottom. Urban Primary Health Care Services Delivery Project, NGO, and private hospitals were in the second, third, and fourth positions, respectively.

The majority of patients, especially those who visited MOHFW facilities, reported poor responsiveness for prompt attention (67.7%), basic amenities (67%), autonomy (60.3%), and confidentiality (51%). For all domains but autonomy, the reported poor responsiveness was higher in MOHFW facilities than in any other types of facilities. However, the reported poor responsiveness of MOHFW facilities was significantly (P value $\leq.05$) higher than that of UPHCSDP, NHSDP, and NGO facilities, especially for prompt attention, clear communication, confidentiality, and quality of basic amenities. For the latter 2, the reported poor responsiveness of MOHFW facilities was significantly (P value $\leq.05$) higher than that in private facilities. Overall, in poor responsiveness, prompt attention (53.5%) and autonomy (58.4%) were the worst-performing domains, and choice of provider (9%), dignity (23%), and clear communication (24%) were the better-performing domains.

Table 2 shows that men were more likely to report poor responsiveness than women for each domain. The differences were significant (P value $\leq.05$) only for confidentiality and quality of basic amenities. In general, elderly people were more likely to report poor responsiveness than younger people, although the difference was not significant.

TABLE 2 Percentage rating responsiveness as poor (represented by percent of respondents who rated the domain as "moderate", "bad", or "very bad") for different domains by gender and age group

Domain	Gender		Age Group			
	Male (%)	Female (%)	Below 16 years (%)	16 to 30 years (%)	31 to 45 years (%)	Above 45 years (%)
Prompt attention	54.7	53.1	40.8	45.7	63.0	64.4
Dignity	29.6	20.4	16.1	19.9	27.3	32.0
Clear communication	35.7	24.6	23.3	25.4	31.5	33.3
Autonomy	39.7	36.5	37.0	36.1	36.4	42.6
Confidentiality	33.6	21.1	25.0	21.7	24.4	32.6
Choice of provider	11.8	7.8	7.9	7.4	11.3	11.3
Quality of basic amenities	49.6	37.0	40.4	34.7	46.4	49.6
Overall	36.4	28.6	27.2	27.3	34.3	38.0

People in the poorest and middle quintiles, in general, were more likely to report poor responsiveness than those in other quintiles (see Table 3). For autonomy and confidentiality, the people in the poorest quintile were more likely to report poor responsiveness than those in any other quintile; for prompt attention, dignity, clear communication, and choice of provider, the people in the middle quintile were more likely to report poor responsiveness than those in other quintiles, and for the quality of basic amenities, the people in the richest quintile were more likely to report poor responsiveness than the others. However, the differences were not significant for any comparison.

People with a primary level of education and below were more likely to report poor responsiveness than people with a secondary and secondary plus level of education for all domains except prompt attention (see Table 4). Those who reported their health status as bad were more likely to report poor responsiveness than those who those reported their health status as good for all dimensions. However, the differences were not significant for any comparison.

The CFA results presented in Table 5 generally confirm the assumed structure of the responsiveness domains. The results supported the assumptions that items (questions) that were assumed to represent various responsiveness domains in fact did so. In other words, the validity of the scale where a number of questions were asked to measure each of the responsiveness domains was supported by the data. The factor loadings, which measured the correlation between the survey responses and the latent constructs (or the domains), were large for most of the items. Although there is no strict cutoff point for the factor loading, different studies have different fixed cutoff points. For example, according to the studies of Gasquet[14] and Hadded,[15] a substantial factor loading is ≥0.4, while Westaway[16] set it as >0.5. Except for a few items, all loadings were greater than 0.5. Factor loadings were not high for only 2 items on the

TABLE 3 Percentage rating responsiveness as poor (represented by percent of respondents who rated the domain as "moderate", "bad", or "very bad") for different domains by income quintiles

| Domain | Income Quintiles | | | | |
	Poorest Quintile (%)	Second Quintile (%)	Third Quintile (%)	Fourth Quintile (%)	Richest Quintile (%)
Prompt attention	55.3	51.5	56.0	55.3	50.5
Dignity	24.1	22.1	25.5	21.2	21.7
Clear communication	30.0	27.2	31.2	24.0	26.0
Autonomy	41.3	38.2	40.2	32.7	34.4
Confidentiality	28.4	24.1	25.8	21.9	22.8
Choice of provider	9.4	6.7	11.2	7.4	10.1
Quality of basic amenities	39.6	37.3	37.4	42.7	45.6
Overall	32.6	29.6	32.5	29.3	30.2

TABLE 4 Percentage rating responsiveness as poor (represented by percent of respondents who rated the domain as "moderate", "bad", or "very bad") for different domains by level of education and self-reported health status

| Domains | Level of Education | | | | Self-Reported Health Status | |
	Illiterate (%)	Primary (%)	Secondary (%)	Higher Secondary and Above (%)	Bad Health (%)	Good Health (%)
Prompt attention	62.1	53.0	48.8	57.7	55.2	51.7
Dignity	28.1	28.8	20.7	22.3	26.2	19.7
Clear communication	31.8	31.3	26.2	27.5	31.1	24.4
Autonomy	44.4	45.8	42.9	42.2	41.1	33.8
Confidentiality	26.4	27.3	23.2	22.8	28.5	20.9
Choice of provider	11.5	10.9	7.2	8.5	10.8	7.1
Quality of basic amenities	38.3	46.7	38.7	39.7	44.4	36.5
Overall	34.7	34.8	29.7	31.5	33.9	27.7

TABLE 5 Confirmatory factor analysis standardized coefficients (factor loadings) to test the construct validity through identifying the domains of responsiveness

Short Item Description	Domain Label	Factor Loadings	Uniqueness (1 − Factor Loadings)^2)
Rate the waiting time for getting care	Prompt attention	0.57	0.68
Rate the waiting time for having test done	Prompt attention	0.66	0.57
Rate getting prompt attention	Prompt attention	0.79	0.38
Rate being shown respect by the health care provider when you sought health care	Dignity	0.60	0.64
Rate being shown respect by the health care provider when the physical examinations conducted	Dignity	0.67	0.56
Rate being able to inform the health care provider about your disease	Dignity	0.60	0.64
Rate being inspired to inform the health care provider about your disease, treatment and other related matter	Dignity	0.59	0.65
Rate being treated with dignity	Dignity	0.71	0.49
Rate having health care providers listen to you carefully	Clear communication	0.60	0.64
Rate having health care providers explain things so you can understand	Clear communication	0.57	0.68
Rate giving patient/attendant time to ask health care providers questions	Clear communication	0.64	0.59
Rate having clear communication	Clear communication	0.75	0.44
Rate being involved in deciding on your care or treatment if you want to	Autonomy	0.65	0.57
Having providers ask your permission before starting treatment or tests	Autonomy	−0.22	0.95
Rate getting involved in decision making	Autonomy	0.67	0.55
Rate having your medical history kept confidential, ie, rate keeping information confidential	Confidentiality	0.70	0.51
Rate being maintained confidentiality while consulting with the providers and undergoing tests	Confidentiality	0.70	0.51
Rate facing any problem to seek care from a health care provider you are happy with	Choice of provider	0.89	0.22
Rate facing any problem to seek care from a health care specialist you are happy with	Choice of provider	0.87	0.23
Rate being able to use health care provider of your choice	Choice of provider	0.38	0.86
Rate the basic quality of the waiting room, ie, having enough space, seating and fresh air in waiting room or wards	Quality of basic amenities	0.71	0.50
Rate the cleanliness of the health care centre	Quality of basic amenities	0.70	0.51
Rate having a clean lavatory	Quality of basic amenities	0.62	0.62
Rate the quality of basic amenities	Quality of basic amenities	0.69	0.52

intended domains: "having providers ask your permission before starting treatment or tests" and "rate being able to use the health care provider of your choice". The former relates to the autonomy domain of responsiveness, and the low factor loading may have arisen because of the inclusion of a question with binary (yes/no) response. The latter relates to the choice of provider domain. The uniqueness value, which reveals the explanatory power of the factor, of each item is also reported in Table 5. Lower uniqueness values indicate a higher explanatory power of the factor. For example, for the item rate getting prompt attention, the uniqueness value was 0.38, meaning that the factor explained 62% of the variance in the responses to receiving prompt attention.

We explored the data to determine whether the ambulatory care responsiveness items were a measure of a single construct, and we prespecified 1 latent construct. The idea was to find a meaningful construct that could serve as a surrogate for ambulatory care responsiveness from the 24 questions presented in Table 6. From the factor loadings (the standardized correlation coefficients between responses to the questions and the construct or the factor), the majority of the items correlated highly (0.5 or higher) to the factor. Thus, it may be concluded that the majority of the items can be expressed on a single scale, which we can refer to as ambulatory care responsiveness.

TABLE 6 Confirmatory factor analysis standardized coefficients (factor loadings)—to test the construct validity (identifying a single construct for overall level of responsiveness)

Short Item Description	Domain Label	Factor Loadings	Uniqueness (1 − (Factor Loadings)^2)
Rate the waiting time for getting care	Prompt attention	0.32	0.90
Rate the waiting time for having test done	Prompt attention	0.24	0.94
Rate getting prompt attention	Prompt attention	0.31	0.90
Rate being shown respect by the health care provider when you sought health care	Dignity	0.59	0.66
Rate being shown respect by the health care provider when the physical examinations conducted	Dignity	0.65	0.58
Rate being able to inform the health care provider about your disease	Dignity	0.53	0.72
Rate being inspired to inform the health care provider about your disease, treatment and other related matter	Dignity	0.59	0.65
Rate being treated with dignity	Dignity	0.57	0.67
Rate having health care providers listen to you carefully	Clear communication	0.63	0.60
Rate having health care providers explain things so you can understand	Clear communication	0.54	0.70
Rate giving patient/attendant time to ask health care providers questions	Clear communication	0.65	0.57
Rate having clear communication	Clear communication	0.70	0.51
Rate being involved in deciding on your care or treatment if you want to	Autonomy	0.25	0.94
Having providers ask your permission before starting treatment or tests	Autonomy	−0.15	0.98
Rate getting involved in decision making	Autonomy	0.34	0.89
Rate having your medical history kept confidential, ie, rate keeping information confidential	Confidentiality	0.48	0.77
Rate being maintained confidentiality while consulting with the providers and undergoing tests	Confidentiality	0.50	0.75
Rate facing any problem to seek care from a health care provider you are happy with	Choice of provider	0.37	0.86
Rate facing any problem to seek care from a health care specialist you are happy with	Choice of provider	0.39	0.85
Rate being able to use health care provider of your choice	Choice of provider	0.61	0.63
Rate the basic quality of the waiting room, ie, having enough space, seating and fresh air in waiting room or wards	Quality of basic amenities	0.58	0.67
Rate the cleanliness of the health care centre	Quality of basic amenities	0.52	0.73
Rate having a clean lavatory	Quality of basic amenities	0.47	0.78
Rate the quality of basic amenities	Quality of basic amenities	0.51	0.74

TABLE 7 Cronbach alpha coefficients

Domain	Interitem Correlation	Cronbach Alpha
Prompt attention	0.4834	.7373
Dignity	0.4205	.7839
Clear communication	0.4356	.7553
Autonomy	0.2849	.5444
Confidentiality	0.6072	.7556
Choice of provider	0.5054	.7540
Quality of basic amenities	0.5338	.8208
Overall	0.2194	.8709

The magnitude of Cronbach alpha coefficients, which assess the unidimensionality of all items, was closer to 0.8 for majority of the domains (see Table 7). The cutoff value of alpha coefficients ranges from 0.6 to 0.8.[17-19] Thus, the results confirm that the items measured a unidimensional construct. The results also show that the interitem correlation was greater than 0.4 for all but the autonomy dimension, which again confirms that the items we used measure a single unidimensional construct. For the autonomy domain, the correlation may have been affected by the inclusion of a question with binary (yes/no) response. If we exclude this binary question from the analysis, the interitem correlation is 0.56 and the alpha coefficient is 0.72 for this domain. Kappa statistics, which measure test-retest reliability, ranged from 0.56 to 0.66 in this study. These results, according to the literature,[19,20] indicate that the response agreement was substantial between the first response of the survey and the retest.

4 | DISCUSSIONS AND CONCLUSION

This study conducted a comparative analysis of the responsiveness of outpatient care among the 5 types of health care sources in urban areas using a customized version of a responsiveness module developed by the World Health Organization. A total of 810 outpatients were surveyed from Dhaka, Rajshahi, and Khulna city corporations.

The results show that generally 33% of the patients rated the responsiveness of outpatient care as poor (ie, moderate, bad, and very bad options). In other words, the responsiveness was 67%. This result was quite incompatible with our expectations. It is worth noting that the rated responsiveness may depend on a patient's expectation based on her/his experience. In our case, the responsiveness may have been overestimated, as patients' expectations about the health system were not high because of the poor socioeconomic conditions. Using a different measure of responsiveness, Peltzer et al[8] and De Souza et al[21] reported a 67% and 80% responsiveness for outpatient care in South Africa and Brazil, respectively.

The degree of responsiveness (ie, good responsiveness) was the lowest in Dhaka City Corporation and the highest in Khulna City. The degree of responsiveness was comparatively low among men, those in the poorest quintile, people with a low level or no education, and those who rated their health status as bad. Irrespective of the type of health facility, the best-performing domains were choice of provider, dignity, clear communication, and confidentiality; the worst-performing ones were autonomy, prompt attention, and quality of basic amenities. Dignity, clear communication, and confidentiality were also rated high on the basis of importance. These are actual access indicators, and thus, these should have the highest degree of responsiveness. However, the degree of responsiveness was not so high (approximately 75%) for each of these domains.

There was a clear distinction in responsiveness score among the different types of facilities. NGO Health Services Delivery Project facilities were rated as the best and MOHFW facilities as the worst. Urban Primary Health Care Services Delivery Project, NGO, and private hospitals were rated as the second, third, and fourth, respectively. The differences were also substantial. Prompt attention showed the lowest degree of responsiveness in MOHFW

followed by quality of basic amenities. A similar picture was also seen in private facilities. Although prompt attention was not the most prioritized domain of the patients, low responsiveness in prompt attention is an important barrier to health care access. Prompt attention is also highly important for MOHFW facilities and private facilities, as patients with a poor health status mostly visit these facilities.

The results complied with all psychometric properties including construct validity (how highly items of the responsiveness module are correlated), unidimensionality (how well a set of items represent a single unidimensional latent construct), reliability (how reproducible the data from a survey instrument are), and feasibility (how a survey instrument works in the field).

The results are not comparable, as there is an absence of studies in both the national and international context comparing the responsiveness among the different types of health care providers other than some simple public-private comparisons. Additionally, the results cannot be generalized because the study was not a nationally representative one as it included only 3 city corporations. Because the results were based on outpatient exit interviews, there was some possibility of overreporting the responsiveness. As the data were collected in the rainy season, the possibility of overreporting was slightly higher because interviews were conducted inside the hospital premises in some cases. As the study was based on outpatient interviews, it was not possible to include a vignette questionnaire, which is a short description of hypothetical scenarios about people's experiences with the health system. This is significant because vignette scores actually measure the expectations of the respondents. Despite these limitations, the results are very useful for comparing the responsiveness of different sources of urban primary health care, and thus, these findings provide important insights for policy implications.

The results provide a clear message to all types of health care providers to improve the degree of responsiveness in all domains. However, priority should be given to the domains that are more concerned with access to health care, namely, prompt attention, dignity, clear communication, and confidentiality. These factors contribute to push outbound medical tourism from Bangladesh, as hinted in the literature.[22,23] Despite a well-established health care network from the primary level (community clinic) to the tertiary level (medical college hospital), a large number of patients every year visit neighbouring countries to seek health care. For example, from 2015 to 16, more than 165 000 out of 460 000, ie, 1 in 3, foreign patients who sought care from Indian hospitals were Bangladeshi. According to the Indian government report published by the Directorate General of Commercial Intelligence and Statistics, those patients bought over BDT 0.34 billion worth of services.[24]

The results suggest that MOHFW facilities should give additional consideration to improving the provision of prompt attention and the quality of basic amenities. Private facilities should also provide additional emphasis on improving prompt attention. The medical education system (both at graduation and postgraduation levels) in Bangladesh needs to place more emphasis on the nontherapeutic quality of health care along with the therapeutic quality. The nontherapeutic quality of health care also needs to be emphasized during foundation trainings and any professional training of medical personnel. Finally, all hospitals and clinics should come under an accreditation system including both therapeutic and nontherapeutic quality of health care; currently, there is no kind of accreditation in the Bangladesh health system. Further research based on household surveys could be worthwhile to measure responsiveness more comprehensively.

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