Responsiveness of Inpatient Services at the Public General Hospitals in Gaza

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Research article

Keywords: Responsiveness, Hospitals, Non-clinical care, Inpatient services, Palestine

Posted Date: January 15th, 2021

DOI: <https://doi.org/10.21203/rs.3.rs-146168/v1>

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Abstract

Background

This study aimed at measuring the responsiveness level of inpatient services according to patients' perspectives, and identifying the factors affecting its performance at the Gazan public general hospitals, particularly in internal medicine and surgical departments, in 2020.

Methods

It was a cross-sectional descriptive study, conducted in 5 public general hospitals in Gaza. Data were collected between October 2019 and June 2020 in a survey included 675 inpatients using an interviewed questionnaire. Data were analyzed using software SPSS 22.0 and by applying descriptive statistics, independent *t*-test and analysis of variance (ANOVA), and post hoc Scheffé test.

Results

The overall responsiveness was "above moderate", 80.15% and 80.9%, for both internal medicine and surgical departments, respectively. Access to social support, confidentiality and dignity were the highest-performing domains, while, choice of provider and quality of basic amenities were the lowest. Dignity and confidentiality were the most important domains based on patients' viewpoints. Hospital type, medical department, and hospital stay in addition to the educational level, marital status, employment status, income, and insurance status were the most influential factors on the level of responsiveness and its domains.

Conclusion

The assessment of the responsiveness of inpatient services at public hospitals is useful in integrating the health system goals. Inpatient care responsiveness was satisfactory in the Gazan public hospitals, however, there is a room for further improvements. Reform strategies should be directed toward the domains of weak performance and the important ones as well. Attention should be given to the supply-side such as hospital characteristics as they significantly affect the level of responsiveness and its domains. Further research is required to carry out mixed-method studies, moreover, the non-public hospitals need to be covered.

Background

Responsiveness is a key strategic feature and stands as one of the three intrinsic goals of any health system, hence, it can act as an effective tool in evaluating its performance ^{1,2}. Improvement of responsiveness plays a substantial role in enhancing the other two goals, including health status and financial protection, and ultimately the health system performance ³.

Differently from the quality of care, responsiveness represents the legitimate expectations of people in terms of non-clinical aspects of the health care services ^{4,5}. Therefore, health systems seek to ameliorate these aspects and respond to peoples' expectations in order to raise the level of satisfaction regardless of the impact of responsiveness on health status ^{1,6}. In addition, sustainment of responsiveness is not financially costly when compared to interventions related to health promotion ⁷.

Responsiveness is expressed through two dimensions; the level and distribution. The level of responsiveness can be measured based on the perception of users, while, the distribution shows to what extent services are fairly provided to individuals in the society ⁸. Furthermore, responsiveness is comprised of eight domains which can be classified into two categories: 1) interpersonal domains including; dignity (DIG), clear communication (CC), autonomy (AUT) and confidentiality (CON), and 2) the client-orientation domains encompassing; prompt attention (PA), access to social support networks (ASN), choice of provider (CP) and quality of basic amenities (QBA) ^{8,9}.

In the World Health Report 2000, 191 countries have been ranked according to their estimated responsiveness (level and distribution) using questionnaires developed by the World Health Organization (WHO). Some countries in the Mediterranean Region were involved such as Egypt, Jordan, Syria, Lebanon, Iran and Qatar, and were ranked 102, 85, 70, 55, 100, and 27, respectively ⁸. State of Palestine was not among the targeted countries in that study.

The Palestinian health system embraces five health care providers. The Ministry of Health (MOH) is the main provider which owns and administers 471 primary healthcare centers and 26 public hospitals in both West Bank and Gaza Strip (GS). Of the 26 hospitals, there

are 13 in the GS containing about 2,240 active beds, in other words, 11.4 bed per 10,000 inhabitants. Out of 13, 7 hospitals in the GS are general as they provide internal medicine and surgical inpatient services. The active beds in internal medicine and surgical departments stand for 52% of the total active beds at the public hospitals in GS ^{10,11}.

Generally, there is no focus on the responsiveness as a core goal of the Palestinian health system. Since there is a paucity of studies in the literature on measuring the level of responsiveness for any types of health services at any level in Palestine, this study was the first in the Palestinian health context which aimed at measuring the responsiveness level of inpatient services according to patients' perspectives, and identifying the factors affecting its performance at the Gazan public general hospitals, particularly in internal medicine and surgical departments in 2020.

Methods

Study setting

This cross-sectional descriptive survey was conducted in the internal medicine and surgical departments at the Gazan public general hospitals in 2020. Anonymously, the included hospitals in this study which locate in the five governorates, were given the codes from A to E. Hospital A (large and non-educational), B (central and educational complex), C (large and non-educational), D (central and educational complex) and E (central and educational large hospital). It is noteworthy that all hospitals in our study deliver a similar range of services, and this can significantly reduce the case-mix bias and make the comparison more feasible.

Sampling and sample size

Multi-staged sampling has been used to select the study participants. Firstly and based on the annual admissions in the investigated departments, the total sample size was calculated for both internal medicine and surgical departments by applying the formula below, 381 and 382 participants, respectively.

$$n = N * X / (X + N - 1)$$

Where, $X = Z_{\alpha/2}^2 * p * (1-p) / MOE^2$, and $Z_{\alpha/2}$ is the critical value of the Normal distribution at $\alpha/2$ (e.g. for a confidence level of 95%, α is 0.05 and the critical value is 1.96), MOE is the margin of error, p is the sample proportion, and N is the population size ¹². N in the current study was 39,000 and 49,000 admissions in internal medicine and surgical departments, respectively.

Secondly, proportional sampling was performed to determine the sample in each hospital in accordance to the number of installed beds in the abovementioned departments. Next, another proportional sampling was carried out according to the number of beds in male and female wards at the same department. Finally, participants were selected randomly after confirming the inclusion criteria; a) inpatients admitted in the departments under study, b) patients whose age ≥ 16 year old, and c) patients who have stayed in the department for 2 days or more. On the other hand, patients hospitalized in intensive care units, cardiology care units, and obstetrics departments have been excluded.

Data collection

By modifying the WHO questionnaire, a pre-tested interview-based questionnaire was developed. The English version has been translated into Arabic by two professional persons, then back-translation from Arabic to English has been undertaken once again by another two professionals. Content validity, addition and elimination of items to modify the original questionnaire have been performed by 12 experts in the field from academia and health sector. A pilot study of 150 patients has been conducted to check the reliability of the modified questionnaire which covers two main parts; 1) the patients' sociodemographic characteristics including: age, sex, marital status, educational level, occupational status, income, insurance, hospital stay, in addition to the hospital of admission and medical department, and 2) the perception of patients toward the eight domains that encompass 37 items on a 4-point Likert scale (1 = highly disagree, 2 = disagree, 3 = agree, and 4 = highly agree). The idea of adopting even-numbered response categories is to have a balanced number of positive and negative options as well as prevent giving people an "out" and makes them more thoughtful in their responses ¹³. The number of items for each domain was as follow: DIG (5 items), CC (5 items), AUT (4 items), CON (3 items), PA (4 items), ASN (4 items), CP (3 items), QBA (8 items), and one question to assess the importance of domains on a (0–10) scale. Based on standardized items, Cronbach's alpha was used for measuring the internal consistency of the abovementioned eight domains, and the related values were; 0.79, 0.82, 0.70, 0.76, 0.78, 0.86, 0.81, and 0.87, respectively. Data have been collected in the

period from October 2019 up to June 2020. Of the 760 needed participants, 675 participants have responded and completed the interview-based questionnaire, hence, the response rate was about 88.5%.

Data analysis

Subsequent to assessing data normality by the two-sample Kolmogorov-Smirnov test, data were analyzed by applying descriptive statistics (frequency, percentage, mean, and standard deviation), independent *t*-test and analysis of variance (ANOVA) using SPSS 22.0 (SPSS Inc., Chicago, IL, USA). A Scheffé post-hoc test was also employed to compare between groups' means in ANOVA. For all tests, results was regarded statistically significant when a *p* value ≤ 0.05 . After calculating the average for each domain score, the weighted mean score per each was then determined as recommended in the WHO methodology⁸. The percentage scores (%) used in Tamimi study have been adopted as references for evaluating responsiveness and its domains; (20–36% very low), (36.1–52% low), (52.1–68% moderate), (68.1–84% above moderate) and (84.1–100% high)¹⁴.

Ethical considerations

Ethical approvals for this study were granted by the Vice-Chancellor in Research Affairs- Tehran University of Medical Sciences (IR. TUMS. VCR. REC. 1398.360), in addition, the study was submitted to the ethics committee local to our study in Palestine, Helsinki committee in the Palestinian Health Research Council, approved and given the code: (PHRC/HC/959/19). Moreover, informed consents were verbally obtained out from all participants, and confidentiality was assured as well.

Results

Participant characteristics

As illustrated in Table 1, 675 respondents have completed the study questionnaire. Of them, 35% were hospitalized at hospital B; the average age was 45.3 years (SD = 18.287); 54.5% were male; 74.2% married; 26.5% were residents in Khanyounis governorate; 51.4% were holders of bachelor degree or higher; 44.9% unemployed; 38.9% with monthly income ≤ 1000 New Israeli Shekel (NIS) (1 USD = 3.35 NIS at the time of writing this manuscript); 66.8% were enrollees in governmental insurance plan; 53.9% admitted at surgical departments; and 46.1% hospitalized for 3 to 5 days.

Table 1
Sociodemographic characteristics of study participants

Variable		Number (n)	Percentage (%)
Hospital	A	105	15.6
	B	236	35.0
	C	71	10.5
	D	113	16.7
	E	150	22.2
Age (years)	16–20	49	7.30
	21–30	119	17.6
	31–40	135	20.0
	41–50	126	18.7
	51–60	104	15.4
	61–70	73	10.8
	≥ 71	69	10.2
	Mean = 45.296 SD = 18.287 years		
Sex	Male	368	54.5
	Female	307	45.5
Marital status	Single	99	9.0
	Married	501	2.1
	Divorced	14	74.2
	Widow	61	14.7
Educational level	Illiterate	65	9.6
	Basic	80	11.9
	Secondary	144	21.3
	Vocational	39	5.8
	BSc or higher	347	51.4
Occupational status	Governmental	215	31.9
	Non-governmental	23	3.4
	UNRWA*	42	6.2
	Private	92	13.6
	Unemployed	303	44.9
Monthly income (NIS)	≤ 1000	204	38.9
	1001–1500	114	21.7
	1501–2000	63	12.0
	2001–2500	45	8.6
	≥ 2501	99	18.9
*UNRWA: United Nations for Working and Relief Agency			

Variable		Number (n)	Percentage (%)
	Mean = 1581.066 SD = 1132.717 NIS		
Insurance type	Governmental	451	66.8
	Military	12	1.8
	Labor	60	8.9
	Social affairs	112	16.6
	Private	36	5.3
	Uninsured	4	0.6
Medical department	Internal Medicine	311	46.1
	Surgical	364	53.9
Hospital stay (days)	1–2	254	37.6
	3–5	311	46.1
	≥ 6	110	16.3
	Mean = 3.979 SD = 4.273 days		
*UNRWA: United Nations for Working and Relief Agency			

Scores of the responsiveness domains

Table 2 shows the findings for both overall responsiveness and the eight domains of inpatient services in the departments under study. The overall responsiveness was “above moderate”, 80.15% and 80.9%, at internal medicine and surgical departments, respectively. ASN was the highest in its performance level (98%), and ranked as “high” based on the study reference values. This was followed by CON, DIG and CC based on participants’ opinions in both internal medicine and surgical departments, whilst, CP and QBA were evaluated lowest in both departments and their levels ranged from 58 to 62% (moderate). Drawing on patients’ viewpoints in both departments, DIG and CON were the most important domains, whereas, QBA and CP were reported 6th and 8th, respectively.

Table 2
Responses of participants on responsiveness domains

Responses of participants on responsiveness domains												
#	Domain	Wt.	Internal medicine					Surgical department				
			Mean	SD	Wt. score	Wt. P. (%)	Importance	Mean	SD	Wt. score	Wt. P. (%)	Importance
1	Dignity	12.5	3.611	0.461	11.30	90.40	2	3.556	0.417	11.11	88.88	1
2	Clear communication	12.5	3.428	0.466	10.70	85.60	7	3.409	0.487	10.65	85.20	3
3	Autonomy	12.5	3.141	0.478	9.80	78.40	5	3.261	0.511	10.20	81.60	5
4	Confidentiality	12.5	3.695	0.321	11.55	92.40	1	3.650	0.436	11.40	91.20	2
5	Prompt attention	20	3.042	0.652	15.20	76	3	3.079	0.605	15.38	76.90	4
6	Access to social support networks	10	3.914	0.209	9.80	98	4	3.925	0.234	9.80	98	7
7	Choice of care provider	5	2.409	0.601	3	60	8	2.459	0.728	3.08	61.60	8
8	Quality of basic amenities	15	2.350	0.613	8.80	58.67	6	2.476	0.572	9.28	61.86	6
Overall responsiveness		100	80.15					80.90				
Wt.: weight of domains according to the WHO methodology; Wt. P.: Weight percentage												

Factors affecting responsiveness

Hospital of admission, age, marital status, educational level, occupational status, income, insurance, medical department, and length of stay have led to statistically significant differences in the level of total responsiveness as well as some domains (Table 3). Scheffé test has investigated the statistically significant effect of certain groups on responsiveness (Table 4). Hospital of admission was the most influential factor as it revealed statistically significant differences in responsiveness among the investigated hospitals (Table 5). The scores of QBA have demonstrated remarkable variations with respect to different groups within the examined variables, followed by PA, CC and AUT, ASN and CP, and at last, DIG and CON (Table 4).

Table 3
Effect of patients characteristics on responsiveness and its domains

Variable	Responsiveness domain	F	Significance
Hospital of admission	Overall responsiveness and all domains	-	0.000
Age	Clear communication	2.692	0.014
	Autonomy	2.762	0.012
	Prompt attention	3.858	0.001
	Choice of provider	2.554	0.019
	Quality of basic amenities	4.845	0.000
	Overall responsiveness	5.229	0.000
Marital status	Access to social networks	4.957	0.002
	Quality of basic amenities	5.461	0.001
	Overall responsiveness	3.120	0.026
Educational level	Clear communication	3.992	0.003
	Autonomy	3.512	0.008
	Prompt attention	8.072	0.000
	Access to social networks	3.882	0.004
	Choice of provider	2.433	0.046
	Quality of basic amenities	42.397	0.000
	Overall responsiveness	28.929	0.000
Occupational status	Clear communication	2.876	0.022
	Prompt attention	3.807	0.005
	Choice of provider	2.893	0.022
	Quality of basic amenities	29.457	0.000
	Overall responsiveness	23.151	0.000
Monthly income	Clear communication	2.755	0.027
	Autonomy	7.975	0.000
	Prompt attention	9.271	0.000
	Choice of provider	17.379	0.000
	Quality of basic amenities	42.476	0.000
	Overall responsiveness	18.178	0.000
Insurance type	Dignity	3.671	0.003
	Clear communication	2.240	0.049
	Confidentiality	5.335	0.000
	Access to social networks	5.456	0.000
	Quality of basic amenities	18.242	0.000
	Overall responsiveness	8.905	0.000
Medical department	Autonomy	-3.151	0.002

Variable	Responsiveness domain	F	Significance
	Quality of basic amenities	-2.745	0.006
	Overall responsiveness	-2.136	0.033
Hospital stay	Clear communication	5.793	0.003
	Autonomy	5.411	0.005
	Prompt attention	11.266	0.000
	Choice of provider	4.856	0.008
	Quality of basic amenities	38.905	0.000
	Overall responsiveness	36.486	0.000

Table 4
Scheffé test for differences in responsiveness related to patients' characteristics

Domain	Variable	F	Significance
Clear communication	≥ 70 – (40–50) years old	0.255	0.045
Autonomy	≥ 70 – (40–50) years old	0.292	0.017
Prompt attention	≥ 70 – (40–50) years old	0.358	0.021
Quality of basic amenities	≥ 70 – (40–50) years old	0.400	0.002
Access to social networks	Married - Divorced	0.202	0.010
Quality of basic amenities	Married - Widow	-0.227	0.045
Clear communication	Illiterate – BSc or higher	3.992	0.003
Prompt attention	Illiterate – BSc or higher	3.512	0.008
Quality of basic amenities	BSc or higher – Illiterate	-0.441	0.000
	BSc or higher – Basic education	-0.531	0.000
	BSc or higher – Secondary	-0.546	0.000
	BSc or higher – Vocational	-0.611	0.000
Prompt attention	Unemployed - Governmental	0.187	0.023
Quality of basic amenities	Unemployed - Governmental	0.479	0.000
	Unemployed - Nongovernmental	0.502	0.001
	Unemployed - UNRWA	0.534	0.000
	Unemployed - Private	0.323	0.000
Autonomy	≤ 1000 – (1501–2000) NIS*	0.286	0.002
Prompt attention	≤ 1000 – (2001–2500) NIS	0.333	0.002
Choice of provider	≤ 1000 – >2500 NIS	0.199	0.022
Quality of basic amenities	≤ 1000 – (1501–2000) NIS	0.428	0.000
	≤ 1000 – (2001–2500) NIS	0.394	0.003
	≤ 1000 – >2500 NIS	0.265	0.012
	≤ 1000 – (1001–1500) NIS	0.272	0.007
	≤ 1000 – (1501–2000) NIS	0.509	0.000
	≤ 1000 – (2001–2500) NIS	0.596	0.000
	≤ 1000 – >2500 NIS	0.454	0.000
	≤ 1000 – (1001–1500) NIS	0.303	0.000
	≤ 1000 – (1501–2000) NIS	0.680	0.000
	≤ 1000 – (2001–2500) NIS	0.653	0.000
	≤ 1000 – >2500 NIS	0.604	0.000
Dignity	Governmental - Labor	0.235	0.009
Confidentiality	Governmental - Labor	0.225	0.003
Access to social networks	Governmental - Labor	0.141	0.001
*Quality of basic amenities			
UNRWA: United Nations for Working and Relief Agency; *NIS: New Shekel			

Domain	Variable	F	Significance
Autonomy	Governmental - Labor	-0.516	0.000
	Governmental – Social affairs	-0.440	0.000
	Internal medicine - Surgical	-3.151	0.002
Quality of basic amenities	Internal medicine - Surgical	-2.745	0.006
Clear communication	≥ 6 – (1–2) days	0.158	0.014
Autonomy	≥ 6 - (3–5) days	0.174	0.004
Prompt attention	≥ 6 – (1–2) days	0.178	0.007
Choice of provider	≥ 6 - (3–5) days	0.161	0.014
Quality of basic amenities	≥ 6 – (1–2) days	0.326	0.000
	≥ 6 - (3–5) days	0.278	0.000
	≥ 6 - (3–5) days	0.404	0.008
	≥ 6 – (1–2) days	0.532	0.000
	≥ 6 - (3–5) days	0.505	0.000
*UNRWA: United Nations for Working and Relief Agency; *NIS: New Shekel			

Table 5
Scheffé test for differences in responsiveness related to hospital of admission

Domain	Variable	F	Significance
Dignity	Hospital E – Hospital B	0.188	0.001
	Hospital E – Hospital C	0.489	0.000
	Hospital E – Hospital D	0.393	0.000
Clear communication	Hospital E – Hospital A	0.379	0.000
	Hospital E – Hospital B	0.452	0.000
	Hospital E – Hospital C	0.564	0.000
	Hospital E – Hospital D	0.379	0.000
Autonomy	Hospital E – Hospital A	0.433	0.000
	Hospital E – Hospital B	0.462	0.000
	Hospital E – Hospital C	0.439	0.000
	Hospital E – Hospital D	0.339	0.000
Confidentiality	Hospital E – Hospital A	0.282	0.000
	Hospital E – Hospital B	0.312	0.000
	Hospital E – Hospital C	0.641	0.000
	Hospital E – Hospital D	0.606	0.000
Prompt attention	Hospital E – Hospital A	0.768	0.000
	Hospital E – Hospital B	0.832	0.000
	Hospital E – Hospital C	0.895	0.000
	Hospital E – Hospital D	0.572	0.000
Access to social networks	Hospital E – Hospital D	0.360	0.000
Choice of provider	Hospital E – Hospital A	1.208	0.000
	Hospital E – Hospital B	1.058	0.000
	Hospital E – Hospital C	1.475	0.000
	Hospital E – Hospital D	1.151	0.000
Quality of basic amenities	Hospital E – Hospital A	0.920	0.000
	Hospital E – Hospital B	0.911	0.000
	Hospital E – Hospital D	-0.147	0.027

Discussion

This study aimed to assess the responsiveness of inpatient services at the Gazan public general hospitals, and to identify the most influential factors on its performance level. Traditionally, assessment of both performance and importance when studying responsiveness of any health system are considered ^{2,15}.

In the current study, responsiveness level was above moderate 'about 80%' which seems satisfactory for the Palestinian hospital system, interestingly, it was better than responsiveness level in some other studies such as Javadi et al (48%) ¹⁶, Ebrahimipour et al (53.2%) ¹⁷, and Mohammadi and Koorosh (58.4%) ¹⁸. Factors such as hospital of admission, age, marital status, educational level, income, insurance, medical department, and hospital stay have significantly affected the responsiveness level. These findings were

consistent with some previous studies in the literature ^{7,17,19-24}, and this might draw the attention of policymakers to check in such factors when planning for responsiveness improvement.

DIG, CON and PA were the most important domains in both departments, while, CP and QBA were the least. This was, to some extent, in line with some studies in the literature ^{16,25,26}. This might be attributed to the importance of respect, privacy and receiving rapid and timely care when needed, on the other hand, people realize that they have no chance to choose their providers based on the policy of the MOH, accordingly, they underestimate the importance of CP. CC and ASN were the seventh and fourth important domains for patients in internal departments, but the third and seventh in surgical departments, respectively. Generally, working environment and the procedures employed may differ from one department to another, in addition, these results necessitate the focus on some domains more than others.

Furthermore, ASN, CON, DIG, CC, AUT and PA were the highest-performing domains in both departments, respectively, whilst, CP and QBA were the least. Well-scheduled visits for escorts and relatives, and the value of social support in the view of married persons might justify the highest level of ASN as stated in two previous studies ^{16,17}. For CP, generally, the Palestinian health system does not allow patients to choose their providers, rather, patients should receive the health services in specific places according to the geographical distribution and place of residency due to the shortage of specialists and the potentially consequent bias. The best performing item in AUT domain was that related to the informed consent prior to any medical or surgical procedure (about 90%), and this can be due to the rules and regulations which mandate filling out certain forms accordingly. This corresponds the findings involved in other studies ^{13,17,22}. In CON domain, the privacy of information and medical records was the most paramount for patients in both departments, and this was consistent with some former studies ^{18,27,28}. It should be noted that the siege and related financial hardship and economic decline, staff burnout, shortages of in healthcare workforce, and the problem in remuneration system may adversely affect the staff commitment, and ultimately reduced responsiveness performance, particularly PA domain ^{27,29}.

Type of hospital was one of the most influential factors on domains' performance. Except for QBA, hospital E was the best-performing among all hospitals based on patients' perspectives, however, hospital D was better in its performance in QBA. E is a large, teaching and referral hospital which was well-established, administered and operated by European staff for years. Moreover, well-qualified specialists, rules and regulations, management practices, sophisticated electronic system, educational programs, and less crowding play a crucial role in raising awareness of health care providers about non-clinical aspects of care. The information system in such hospitals produces rich data and leads to enhancing the provider-client relationship ^{20,30}. The recent construction and maintenance activities, and the newly founded and well-facilitated buildings have contributed in ameliorating QBA in departments under study in hospital D. Conversely, lack of rooms' space, electricity cutoffs in the absence of alternatives such as diesel, have decreased level of QBA at the Nigerian public hospitals ²⁰. In their study, Mosallam et al discovered that rooms shared by several patients without curtains have adversely affected the CON performance at the public hospitals.

Elderly patients in this study (≥ 70 years old) showed higher levels of responsiveness, CC, AUT, PA and QBA, and this was consistent with Peltzer et al study ²¹. These findings could be due to the cultural respect to elderly people which gives them the advantage in all domains. Low expectations and insufficient awareness level, in addition to the information asymmetry between providers and low-educated patients might account for the better performance in responsiveness, CC, PA and QBA. In the same vein, jobless patients and those of low income gave higher performance ratings for PA and QBA, and AUT, PA, CP and QBA, respectively. This also reflects the low ceiling of expectations, the lower social status they may feel, and the conditions they live as well. However, these results could give a positive impression but might mask some defects in the system as stated by Mohammed et al ³⁰.

Although there was notable differences in the levels of DIG, CON, ASN and QBA according to the insurance type, this might be referred to reasons other than the type itself that is because the Palestinian health system does not limit the accessibility of uninsured persons to inpatient services. For that, there is a way to enable those uninsured patients and those holders of expired insurance to receive the health care service and sign a commitment to pay for the insurance later on. Nonetheless, the expectations of enrollees in the labor or social insurance plans regarding QBA may justify their better perspective about this domain.

Patients admitted to surgical departments reported higher performance for AUT and QBA, and these differences were statistically significant. The clear information and consultation on treatment alternatives in surgical departments, moreover, the quality of basic services related to rooms and facilities in these departments may owe for the better-off performance therein. The findings in the present study were consistent with those of previous studies ^{21,24,30}. For hospital stay, it was obvious that those patients who have

stayed for 6 days or more showed higher performance levels in CC, AUT, PA, CP and QBA. The friendly atmosphere which can be developed with time between those patients and the staff, in addition to the paternalistic behavior³⁰ are potential explanations for this result.

CP was selected as the least important domain according to patients from both departments. Furthermore, CP and QBA were the lowest domains in performance (about 60%). CP performance was significantly affected by hospital type (hospital E), income (≤ 1000 NIS) and hospital stay (≥ 6 days). However, there is a restricted room in hospital E for the patient to choose his provider as this hospital is relatively less crowded and has plenty of well-qualified specialists. Giving more attention to CP is expected to raise performance of the overall responsiveness^{13,18,20,27}.

Conclusion

The assessment of the responsiveness of inpatient health care services at public hospitals is useful in integrating the health system goals. The overall responsiveness was about 80%, above moderate, and is viable for further improvement. The domains QBA, CP and PA were highlighted as crucial areas to ameliorate the perceived responsiveness of healthcare services. The gap between importance and performance of CC and ASN in internal medical and surgical departments, respectively, should be addressed. Reform strategies should be directed toward all domains, considering their weight and effect in promoting the total responsiveness. Attention should be also given to patients' as well as hospital characteristics in order to elucidate a comprehensive picture about responsiveness. Further researches of mixed-method design are required to obtain more rigorous results. Extensive studies are also needed to cover hospitals other than the public ones.

Declarations

Ethics approval and consent to participate: Ethical approvals for this study were granted by the Vice-Chancellor in Research Affairs-Tehran University of Medical Sciences (IR. TUMS. VCR. REC. 1398.360), in addition, the study was submitted to the ethics committee local to our study in Palestine, Helsinki committee in the Palestinian Health Research Council, approved and given the code: (PHRC/HC/959/19). Moreover, informed consents were verbally obtained out from all participants, and confidentiality was assured as well.

Consent for publication: Not applicable.

Availability of data and materials: The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

Funding: This study was partially funded by Tehran University of Medical Sciences as a requirement for PhD degree.

Authors' contributions: Firstly, it should be noted that all authors read and approved the manuscript.

IS, EJP and AAS was responsible for conception, design, and drafting the work.

IS, MH and AES was accountable for analysis and substantive revision of the work.

EJP, MH, AES and AAS was responsible in interpretation and substantive revision of the work.

In addition, IS, AAS have approved the submitted work, and they are personally accountable for the author's own contributions and to ensure that questions related to the accuracy or integrity of any part of the work.

Acknowledgments: The authors would like to thank all data collectors and highly appreciate their efforts in this original research work.

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