# Responsiveness of Women in Physical Therapy Departments

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## ABSTRACT

*Background: The objectives of any health system are good health, responsiveness, and fair financing. Responsiveness refers to how a system facilitates people to meet their legitimate non health expectations. Purpose: This study was conducted to determine the real responses of women to non clinical services in some physical therapy departments in General Organization for Teaching Hospitals and Institutes, and how they rated the domains of responsiveness from their point of view; such as: which domain was the most important and which domain is the least important, and what is the rate for each domain on a 0-10 scale where 0 was not important at all while 10 was the most important to these women. Participants: 412 women, varying in age and educational level while all of urban areas in residence, were selected from Physical Therapy Departments in National Institute for Neuromotor System; El Sahel, EL Mataria, Ahmed Maher, and El Galaa Teaching Hospitals; and National Institute for Nutrition. Methods: A developed questionnaire and modulated to be suitable for asking about the responsiveness of ambulatory care visits in Physical Therapy Departments was used. Analysis: Frequency and percentage had been used to describe the entire data outcomes, while mean of highest responses in percent to questions B13, B24, B34, B43, B53, B63, and B73 was used to rank the total responsiveness between the hospitals and institutes of the study as descriptive statistics. Kruskal Wallis Test had been used to evaluate and compare between the responsiveness domains (for selected questions because of the large entire data outcomes) in each age group and category of education; because of the data are non-parametric; as analytical statistics: The selected questions from section "B" were the previously mentioned, as well as all the questions of sections "C" and "D". Results: Moderate level of responsiveness, with dignity is the most important domain and autonomy is the least important domain; all over the hospitals and institutes included in the study. Age and educational level had influences on the responses to the questionnaire in women. Conclusion: Dignity was the most important domain while autonomy was the least important domain. Dignity, confidentiality, clear communication,*

*prompt attention, and choice of health care provider were well acting; while quality of basic amenities and autonomy were not well acting. All over, there was no excellence in performing any domain. Key words: Responsiveness, non clinical services, domains, age groups, educational level.*

# INTRODUCTION

The health system is defined as all actors, institutions or resources that undertake health actions whose primary intent is to improve health. This means that it might include traditional medical practices or alternative medical practices. Good health, responsiveness,and fairness of finance are the objectives of health system. Theresponsiveness is the non-clinical aspects related to the way individuals are treated and the environment in which they are treated[1, 2, 3].

Responsivenessis not a measure of the way the system responds to health needs, which shows up in health outcomes, but the way the system performs relative to non-health aspects, meeting or not meeting a client's expectations of how it should be treated by providers of prevention, care or non-personal services[2].

Some systems are highly unresponsive. A common complaint in many countries about public sector health workers focuses on their rudeness and arrogance in relations with patients[3,4]. Waiting times for non-emergency surgery vary specially among industrialized countries[5] and are the subject of much criticism of ministries of health[6].

Different cultures, ethnicities, religions, ages, educational levels, income, and residence in the countries have insults on the responsiveness level[7, 8, 9].

## Elements of Responsiveness:

The elements of responsiveness can be briefly defined as follows[1, 5, 10, 11, 12, 13, 14, 15, 16]:

**Dignity** involves the right of individuals to be treated as persons rather than merely as patients who due to asymmetric information and physical incapacity have rescinded their right to be treated with respect. This includes a range of issues from being treated with respect to the safeguarding of an individual's human rights (for instance the right not to be incarcerated if suffering from a communicable disease).

**Autonomy** is self-directing freedom, with regard to deciding between alternative treatment, testing and care options, including the decision to refuse treatment, if of sound mind.

**Confidentiality** relates to protecting privacy in the context of privileged communication and medical records.

**Prompt attention** incorporates two aspects. The first is access, where the ability to gain care speedily through conveniently located health care units is important, not because it would improve health outcomes

(which would be captured under the measurement of health), but because the existence of such facilities at close call would improve individuals' psychic welfare. Secondly, it focuses on welfare enhancement through minimizing waiting time, both with regard to consultation and treatment and operation lists.

**Quality of basic amenities** focuses on non -health enhancing physical attributes of health care units such as cleanliness of the facility, adequacy of furniture and quality of food.

**Choice of care provider** covers choice between and within health care units, including opportunities of accessing specialist care and second opinions.

**Access to social support networks** during care is included because a patient's welfare is best served by integrating community interactions with health care activities.

**Clear communication** include having the health care providers listen to the client carefully, having health care providers explain things so the client can understand, and giving patients and family time to ask health care providers questions.

Dignity, confidentiality, and autonomy, prompt attention, quality of basic amenities, clear communication, and choice of health care provider are domains for out clinic visits while the same domains in addition to access to social support are domains for the hospitalized clients[3, 17].

Elements of responsiveness can be divided into two aspects which are respect of persons (includes dignity, confidentiality, and autonomy), and client orientation (including prompt attention, quality of basic amenities, access to social support, and choice of health care provider)[2, 15].

The responsiveness module included questions on health usage, a question on the importance of the different domains, a suite of questions on how these domains performed in a country and a set of vignettes. The responsiveness domains are the non-therapeutic aspects of health related activities that affect a person's experience of health care. They do not refer to medical procedures, but none the less impact on health outcomes[17].

To materialize and measure responsiveness meaningfully in different settings, a questionnaire containing a responsiveness module was fielded in surveys in different countries[3].

The medicine history had been proven that the *Islamic Medicine* was the *first* to work through a good health care system, approached it very well, and achieved all the objectives of any health care system known all over more than one thousand years. On the other hand other medical systems at that time were not acting in a scientific way as the *Muslims* did. Before *Muslims*, the *Greeks* had temples of healing. In these, health care was based more on the idea of miraculous cure rather than scientific analysis and practice. Anyone had been treated for free rather than who he/she may be. The patients showed a great responsiveness levels; which was proven through the letter mentioned by

**Hunke (1993)** (Appendix I) and in other literatures[16, 17, 18, 19].

## MATERIAL AND METHODS:

The sample was 412 female clients, selected according to the following criteria from Physical Therapy Departments in General Organization of Teaching Hospitals and Institutes (GOTHI), Cairo, Arab Republic of Egypt (A.R.E).

*Inclusion Criteria:*

- Clients had received physical therapy services in the last three months at only Physical Therapy Departments in GOTHI "National Institute for Neuromotor System (NINMS); El Sahel Teaching Hospital (STH), EL Mataria Teaching Hospital (MTH), Ahmed Maher Teaching Hospital (AMTH), El Galaa Teaching Hospital (GTH), and National Institute for Nutrition (NIN)", Cairo, A.R.E.

- The respondents to the questionnaire were all of urban residence and had income of 2000-2500 Egyptian Pounds monthly.

- Clients had received physical therapy services in only ambulatory visits.

- Clients who had physical therapy services for more than one week.

- Clients to be chosen were not working (house wives).

*Exclusion Criteria:*

- Clients who had received physical therapy services in other medical facilities.

- Clients who had received physical therapy services in either home visits or inpatient hospital services.

- Clients who were of rural residence and had income other than 2000-2500 Egyptian Pounds monthly.

- Clients who had physical therapy services for more than one year.

**Materials:**

All women who participated in this study signed a consent form (Appendix II). Duration of the study was 11 months from September, 2014 to July, 2015.

A developed questionnaire was used for only ambulatory visits domains, with the questions which were collected from different questionnaires[1, 22, 23, 24], and modulated to be suitable for asking about the responsiveness in Physical Therapy Departments (Appendix III "English version" and Appendix IV "Arabic version").

*Section (A)* represents the demographic data about the respondents.

*Section (B)* represents the seven domains of ambulatory visits service responses.

Response scale options:

I. *Report (Frequency) scales*: Always, Usually, Sometimes, Never.

II. *Rating scales:* Very good, Good, Moderate, and Bad.

III. *Other reporting (Number of days)*: Same day, 1-2 days, 3-5 days, and 6 days and more.

IV. *Other rating (Problems)*: No problem, Mild problem,

Moderate problem, and Severe problem.

All domains included a summary "rating" question scaled 1 (Very good) to 4 (Bad). In addition, every domain included "report" questions on particular experiences with the health system scaled 1 (Never) to 4 (Always). Report questions are noted by the way they ask for the patients to report whether a certain event happened or not, or how frequently it happened.

*Section (C):* Respondents were asked to rank the seven responsiveness domains in terms of perceived importance to them personally. Using the survey responses, a single variable for each domain was created in which the survey responses are summarized using the following coding:

1 = Least important.

3 = Most important.

*Section (D):*The respondents rated how important the domain is, where zero means not important at all and 10 means extremely important.

The final form of the developed questionnaire is presented in Appendix "III", and the translation into Arabic is presented in Appendix "IV".

**Methods and Instrumentations:**

1. The questionnaire had been held in face to face meeting.
2. Data Analysis:

- Descriptive Statistics: Frequency and percentage had been used to describe the entire data outcomes, while mean (of highest responses in percent to questions B13, B24, B34, B43, B53, B63, and B73) was used to rank the total responsiveness between the hospitals and institutes of the study.
- Analytical Statistics: as the data are non-parametric; Kruskal Wallis Test had been used to evaluate and compare between the responsiveness domains (for selected questions because of the large entire data outcomes) in each age group and category of education. The selected questions from section "B" the selected questions were (B13, B24, B34, B43, B53, B63, and B73), as well as all the questions of sections "C" and "D".

## RESULTS

*The respondents' responses to questions of section "A" were:*

Age groups:

**Table (1):** Age groups of the respondents.

| Hospitals / Institutes | Statistics | 20-29 Years | 30-39 Years | 40-49 Years | 50-59 Years | 60 & more Years | Total No. |
|---|---|---|---|---|---|---|---|
| NINMS | Frequency | 25 | 35 | 23 | 26 | 15 | 124 |
|  | Percent | 20.2 | 28.2 | 18.5 | 21.0 | 12.1 | 100 |
| STH | Frequency | 19 | 31 | 13 | 12 | 14 | 89 |
|  | Percent | 21.3 | 34.8 | 14.6 | 13.5 | 15.7 | 100 |
| MTH | Frequency | 16 | 18 | 14 | 14 | 8 | 70 |
|  | Percent | 22.9 | 25.7 | 20 | 20 | 11.4 | 100 |
| AMTH | Frequency | 10 | 18 | 4 | 8 | 10 | 50 |
|  | Percent | 20 | 36 | 8 | 16 | 20 | 100 |

| GTH | Frequency | 4 | 13 | 11 | 10 | 8 | 46 |
|---|---|---|---|---|---|---|---|
| | Percent | 8.7 | 28.3 | 23.9 | 21.7 | 17.4 | 100 |
| NIN | Frequency | 13 | 10 | 4 | 5 | 1 | 33 |
| | Percent | 39.4 | 30.3 | 12.1 | 15.2 | 3 | 100 |
| All | Frequency | 87 | 125 | 69 | 75 | 56 | 412 |
| | Percent | 21.1 | 30.3 | 16.7 | 18.2 | 13.6 | 100 |

- Green colored cells represent highest responses.
- Blue colored cells represent lowest responses.

Respondents varied in age; all over the hospitals and institutes included in the study; as the highest age group values were 30.3 % in the age group of "30-39", while the lowest age group values were 13.6 % in the age group of "60 and more".

The highest values of age groups were 28.2 %, 34.8 %, 25.7%, 36 %, and 28.3 % in the age group of "30-39" in NINMS, STH, MTH, AMTH, and GTH respectively; while 39.4 % were in the age group of "20-29" in NIN.

The lowest values of age groups were 12.1 %, 11.4 %, and 3 % in the age group of "60 and more" in NINMS, MTH, and NIN respectively; while was 13.5 % in the age group of "50-59" in STH, 8 % in the age group of "40-49" in AMTH, and 8.7 % in the age group of "20-29" in GTH.

Educational level:

**Table (2):** Educational level of the respondents.

| Hospitals / Institutes | Statistics | less than primary school | Primary school | Preparatory school | Secondary school | High School | College / University | Total No. |
|---|---|---|---|---|---|---|---|---|
| NINMS | Frequency | 18 | 13 | 19 | 28 | 14 | 32 | 124 |
| | Percent | 14.5 | 10.5 | 15.3 | 22.6 | 11.3 | 25.8 | 100 |
| STH | Frequency | 16 | 10 | 13 | 17 | 12 | 21 | 89 |
| | Percent | 18 | 11.2 | 14.6 | 19.1 | 13.5 | 23.6 | 100 |
| MTH | Frequency | 10 | 8 | 11 | 15 | 9 | 17 | 70 |
| | Percent | 14.3 | 11.4 | 15.7 | 21.4 | 12.9 | 24.3 | 100 |
| AMTH | Frequency | 11 | 3 | 9 | 11 | 7 | 9 | 50 |
| | Percent | 22 | 6 | 18 | 22 | 14 | 18 | 100 |
| GTH | Frequency | 10 | 5 | 5 | 10 | 5 | 11 | 46 |
| | Percent | 21.7 | 10.9 | 10.9 | 21.7 | 10.9 | 23.9 | 100 |
| NIN | Frequency | 2 | 5 | 6 | 7 | 5 | 8 | 33 |
| | Percent | 6.1 | 15.2 | 18.2 | 21.2 | 15.2 | 24.2 | 100 |
| All | Frequency | 67 | 44 | 63 | 88 | 52 | 98 | 412 |
| | Percent | 16.3 | 10.7 | 15.3 | 21.4 | 12.6 | 23.8 | 100 |

- Green colored cells represent highest responses.
- Blue colored cells represent lowest responses.

Respondents varied in educational level; all over the hospitals and institutes included in the study; as the highest age group values were 23.8 % in the educational level of "College / University", while the lowest educational level values were 10.7 % in

the educational level of "Primary school".

The highest values of educational level were 25.8 %, 23.6 %, 24.3%, 23.9 %, and 24.2 % in the educational level of "College / University" in NINMS, STH, MTH, GTH, and NIN respectively; while it was 11 % in the educational level of "less than Primary school" in AMTH.

The lowest values of educational level were 10.5 %, 11.2 %, 11.4 %, and 6 % in the educational level of "Primary school" in NINMS, STH, MTH, and AMTH respectively; while 10.9 % were in the educational levels of "Primary, Preparatory, and High schools" in GTH, and 6.1 % was in the educational level "less than Primary school" in NIN.

*The real responsiveness was represented in section "B".* The respondents showed moderate level of responsiveness all over the hospitals and institutes manipulated in this study with highest responsiveness level was in GTH and lowest responsiveness level was in AMTH.

The responses of respondents to "Prompt attention" questions B11, B12, and B13 were 48.5% (Always), 52.4% (Same day), and 50.5% (Very good) respectively. Which means mostly the *Prompt attention* was totally *acting well*.

The responses of respondents to "Dignity" questions B21, B22, B23, and B24 were 88.3% (Always), 78.6% (Always), 64.3% (Always), and 64.3% (Very good) respectively. Which means mostly the *Dignity* was totally *acting well*.

The responses of respondents to "Clear communication" questions B31, B32, B33, and B34 were 68.9% (Always), 63.1% (Always), 63.1% (Always), and 56.3% (Very good) respectively. Which means mostly the *Clear communication* was totally *acting well*.

The responses of respondents to "Autonomy" questions B41, B42, and B43 were 55.1% (Never), 32% (Never), and 29.1% (Bad) respectively. Which means mostly the *Autonomy* was totally *not acting well*.

The responses of respondents to "Confidentiality" questions B51, B52, and B53 were 38.1% (Always), 57.3% (Always), and 43% (Very good) respectively. Which means mostly the Confidentiality was totally *acting well*.

The responses of respondents to "Choice of heath care provider" questions B61, B62, and B63 were 38.1% (No problem), 42% (No problem), and 40.5% (Good) respectively. Which means mostly the Choice of heath care provider was totally *acting well*.

The responses of respondents to "Quality of basic amenities" questions B71, B72, and B73 were 33.7% (Good), 33.7% (Good), and 34% (Moderate) respectively. Which means mostly the Quality of basic amenities was totally *not acting well*.

Depending on the highest percentages of responses to questions B13, B24, B34, B43, B53, B63, and B73; the average means for these questions was estimated in order to compare the total responsiveness level in each hospital and institute. It was found that the total responsiveness is

moderate all over the hospitals and institutes. The total responsiveness was ranked from the highest to lowest as following: GTH, MTH, NIN, NINMS, STH, and then AMTH (shown in figure "1").
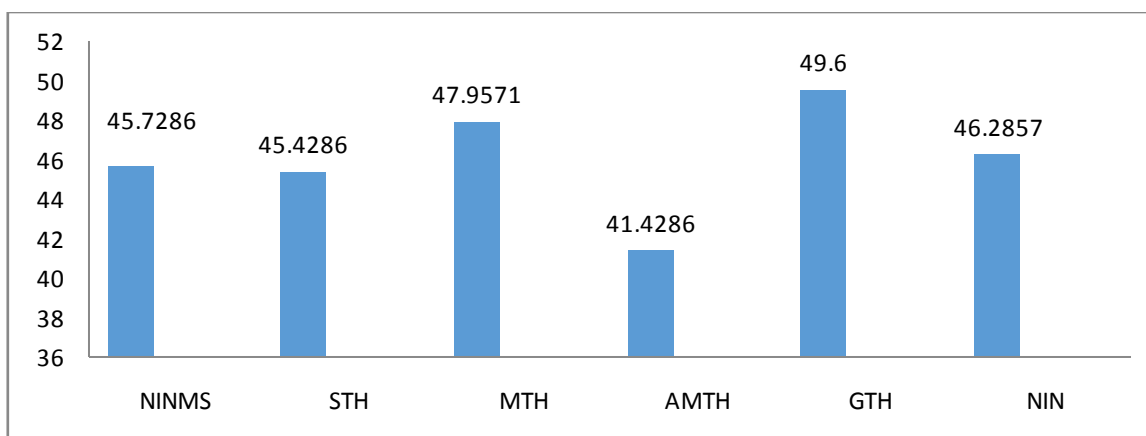


**Figure (1):** Comparing the total responsiveness in each Hospital and Institute.

*Testing the correlation between the age groups and the real responsiveness through the responses for questions B13, B24, B34, B43, B53, B63, and B73 (shown in tables "3" and "4"):*

There is no significant difference between age groups and responses to questions B13, B43, and B53; while there is significant difference between age groups responses to questions B24, B34, B63, and B73.

Age groups of "20-29" and "more than 60" are significantly different in question B24; age groups of "20-29" and "30-39" are significantly different in question B34; age group of "20-29" is significantly different in question B63; and age groups of "20-29", "30-39" and "more than 60" are significantly different in question B73.

**Table (3):** Mean ranks of responses to questions B13, B24, B34, B43, B53, B63, and B73 in correlation to age groups.

|  | Age Groups | N | Mean Rank |
|---|---|---|---|
| B13 Prompt Attention | 20 – 29 | 87 | 213.19 |
|  | 30-39 | 125 | 209.97 |
|  | 40-49 | 69 | 187.51 |
|  | 50-59 | 75 | 226.10 |
|  | 60 & more | 56 | 185.50 |
|  | Total | 412 |  |
| B24 Dignity | 20 – 29 | 87 | 241.80 * |
|  | 30-39 | 125 | 194.74 |
|  | 40-49 | 69 | 208.48 |
|  | 50-59 | 75 | 208.44 |
|  | 60 & more | 56 | 172.86 * |
|  | Total | 412 |  |
| B34 Clear Communication | 20 – 29 | 87 | 262.06 * |
|  | 30-39 | 125 | 208.40 * |
|  | 40-49 | 69 | 173.78 |

| | 50-59 | 75 | 188.39 |
| | 60 & more | 56 | 180.50 |
| | Total | 412 | |

| | | | |
|---|---|---|---|
| B43<br>Autonomy | 20 – 29 | 87 | 224.14 |
| | 30-39 | 125 | 189.95 |
| | 40-49 | 69 | 199.38 |
| | 50-59 | 75 | 218.63 |
| | 60 & more | 56 | 208.55 |
| | Total | 412 | |
| B53<br>Confidentiality | 20 – 29 | 87 | 220.79 |
| | 30-39 | 125 | 214.74 |
| | 40-49 | 69 | 199.52 |
| | 50-59 | 75 | 204.33 |
| | 60 & more | 56 | 177.39 |
| | Total | 412 | |
| B63<br>Choice of Health<br>Care Provider | 20 – 29 | 87 | 246.52 * |
| | 30-39 | 125 | 205.72 |
| | 40-49 | 69 | 189.55 |
| | 50-59 | 75 | 197.21 |
| | 60 & more | 56 | 179.39 |
| | Total | 412 | |
| B73<br>Quality of Basic<br>Amenities | 20 – 29 | 87 | 226.36 * |
| | 30-39 | 125 | 240.51 * |
| | 40-49 | 69 | 182.49 |
| | 50-59 | 75 | 201.97 |
| | 60 & more | 56 | 135.39 * |
| | Total | 412 | |

*. There is significant difference.

**Table (4):** Kruskal Wallis Test of responses to questions B13, B24, B34, B43, B53, B63, and B73 in correlation to age groups.

**Test Statistics[a,b]**

| Statistics Test | B13 | B24* | B34* | B43 | B53 | B63* | B73* |
|---|---|---|---|---|---|---|---|
| Chi-square | 7.038 | 18.682 | 36.194 | 5.752 | 6.205 | 16.179 | 38.854 |
| Df | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Asymp. Sig. | .134 | .001 | .000 | .218 | .184 | .003 | .000 |

a. Kruskal Wallis Test.
b. Grouping Variable: Age Group.
*. There is significant difference.

*Testing the correlation between the educational level and the real responsiveness through the responses for questions B13, B24, B34, B43, B53, B63, and B73 (shown in tables "5" and "6"):*

There is significant difference between educational level and responses to questions B13, B24, B34, B43, B53, B63 and B73.

Educational level of "Less than primary school" and "High school" are mostly different in question B13; educational level of "Less than primary school", "Primary school", "High school", and "College / University" are mostly different in question B24; educational level of "Less than primary school" and "High school" are mostly different in question B34; educational level of "Less than primary school", "Primary school", "Preparatory school", and "College / University" are mostly different in question B43; educational level of "Less than primary school", "Secondary school", "High school", and "College / University" are mostly different in question B53; educational level of "High school", and "College / University" are mostly

different in question B63; and educational level of "Less than primary school", "High school", and "College / University" are mostly different in question B73.

**Table (5):** Mean ranks of responses to questions B13, B24, B34, B43, B53, B63, and B73 in correlation to educational level.

|  | Educational Level | N | Mean Rank |
|---|---|---|---|
| B13 | less than primary | 67 | 144.62* |
|  | Primary | 44 | 207.59 |
|  | Preparatory | 63 | 179.67 |
|  | Secondary | 88 | 219.59 |
|  | High School | 52 | 256.96* |
|  | College / University | 98 | 227.03 |
|  | Total | 412 | |
| B24 | less than primary | 67 | 163.54* |
|  | Primary | 44 | 183.73* |
|  | Preparatory | 63 | 203.86 |
|  | Secondary | 88 | 212.25 |
|  | High School | 52 | 231.08* |
|  | College / University | 98 | 229.59* |
|  | Total | 412 | |
| B34 | less than primary | 67 | 132.50* |
|  | Primary | 44 | 222.68 |
|  | Preparatory | 63 | 213.26 |
|  | Secondary | 88 | 226.68 |
|  | High School | 52 | 234.04* |
|  | College / University | 98 | 212.74 |
|  | Total | 412 | |
| B43 | less than primary | 67 | 183.56* |
|  | Primary | 44 | 166.95* |
|  | Preparatory | 63 | 165.66* |
|  | Secondary | 88 | 211.55 |
|  | High School | 52 | 220.19 |
|  | College / University | 98 | 254.40* |
|  | Total | 412 | |
| B53 | less than primary | 67 | 144.49* |
|  | Primary | 44 | 173.00 |
|  | Preparatory | 63 | 184.75 |
|  | Secondary | 88 | 214.05* |
|  | High School | 52 | 248.81* |
|  | College / University | 98 | 248.69* |
|  | Total | 412 | |
| B63 | less than primary | 67 | 141.66 |
|  | Primary | 44 | 173.50 |
|  | Preparatory | 63 | 155.83 |
|  | Secondary | 88 | 204.48 |
|  | High School | 52 | 271.00* |
|  | College / University | 98 | 265.82* |
|  | Total | 412 | |
| B73 | less than primary | 67 | 91.30* |
|  | Primary | 44 | 169.36 |
|  | Preparatory | 63 | 164.87 |
|  | Secondary | 88 | 189.14 |
|  | High School | 52 | 257.65* |
|  | College / University | 98 | 317.14* |
|  | Total | 412 | |

*. There is significant difference.

**Table (6):** Kruskal Wallis Test of responses to questions B13, B24, B34, B43, B53, B63, and B73 in correlation to educational level.

**Test Statistics[a,b]**

| Statistics Test | B13* | B24* | B34* | B43* | B53* | B63* | B73* |
|---|---|---|---|---|---|---|---|
| Chi-square | 41.228 | 23.002 | 41.106 | 33.709 | 48.836 | 82.358 | 186.891 |
| Df | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Asymp. Sig. | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

a. Kruskal Wallis Test.
b. Grouping Variable: Educational level.
*. There is significant difference.

*Testing the correlation between the age groups and the personal evaluation for what domain is the most/least important (shown in tables "7" and "8"):*

Age group of "40-49" is mostly different in responses to the question of personal evaluation for what domain is the most important, while age groups of "20-29" and "60 and more" are mostly different in responses to questions of personal evaluation for what domain is the least important.

**Table (7):** Mean ranks of responses to questions of personal evaluation for what domain is the most/least important in correlation to age groups.

| | Age Group | N | Mean Rank |
|---|---|---|---|
| Most Important | 20 – 29 | 87 | 184.27 |
| | 30-39 | 125 | 190.20 |
| | 40-49 | 69 | 259.29* |
| | 50-59 | 75 | 194.00 |
| | 60 & more | 56 | 229.12 |
| | Total | 412 | |
| Least Important | 20 – 29 | 87 | 236.55* |
| | 30-39 | 125 | 206.19 |
| | 40-49 | 69 | 209.56 |
| | 50-59 | 75 | 201.45 |
| | 60 & more | 56 | 163.50* |
| | Total | 412 | |

*. There is significant difference.

**Table (8:** Kruskal Wallis Test of responses to questions of personal evaluation for what domain is the most/least important in correlation to age groups.

**Test Statistics[a,b]**

| Statistics Test | Most Important* | Least Important* |
|---|---|---|
| Chi-square | 24.963 | 14.000 |
| Df | 4 | 4 |
| Asymp. Sig. | .000 | .007 |

a. Kruskal Wallis Test.
b. Grouping Variable: Age Group.
*. There is significant difference.

*Testing the correlation between the educational level and the personal evaluation for what domain is the most/least important (shown in tables "9" and "10"):*

Educational level of "Less than primary school" is significantly different in responses to the question of personal evaluation for what domain is the most important, while there is no significant difference of educational level in responses to questions of personal evaluation for what domain is the least important.

**Table (9):** Mean ranks of responses to questions of personal evaluation for what domain is the most/least important in correlation to educational level.

|  | Educational level | N | Mean Rank |
|---|---|---|---|
| Most Important | less than primary | 67 | 256.09* |
|  | Primary | 44 | 192.57 |
|  | Preparatory | 63 | 187.71 |
|  | Secondary | 88 | 204.03 |
|  | High School | 52 | 193.43 |
|  | College / University | 98 | 200.08 |
|  | Total | 412 |  |
| Least Important | less than primary | 67 | 189.26 |
|  | Primary | 44 | 183.23 |
|  | Preparatory | 63 | 235.19 |
|  | Secondary | 88 | 218.77 |
|  | High School | 52 | 205.19 |
|  | College / University | 98 | 199.96 |
|  | Total | 412 |  |

*. There is significant difference.

**Table (10):** Kruskal Wallis Test of responses to questions of personal evaluation for what domain is the most/least important in correlation to educational level.

**Test Statistics[a,b]**

| Statistics Test | Most Important* | Least Important |
|---|---|---|
| Chi-square | 16.893 | 8.576 |
| Df | 5 | 5 |
| Asymp. Sig. | .005 | .127 |

a. Kruskal Wallis Test.
b. Grouping Variable: Educational level.
*. There is significant difference.

*Testing the correlation between the age groups and the personal evaluation for the importance of each domain on a 0-10 scale; where 0 means not at all important and 10 means extremely important (shown in tables "11" and "12"):*

There is significant difference in responses to the personal evaluation for the importance of each domain on a 0-10 scale (where 0 means not at all important and 10 means extremely important) in correlation to age groups; where:

Age group of "50-59" is different in responses to Dignity; age groups "20-29", "30-39", and "60 and more" are different in response to Autonomy; age group of "60 and more" is different in responses to Confidentiality; age groups "30-39", "50-59", and "60 and more" are different in response to Clear Communication; age groups "20-29" and "30-39" are different in response to Prompt Attention; age group "60 and more" is different in response to Quality of Basic Amenities; while age groups "30-39", "50-59" and "60 and more" are different in response to Choice of Health Care Provider.

**Table (11):** Mean ranks of responses to the personal evaluation for the importance of each domain on a 0-10 scale (where 0 means not at all important and 10 means extremely important) in correlation to age groups.

|  | Age Group | N | Mean Rank |
|---|---|---|---|
| Dignity | 20 – 29 | 87 | 194.27 |
|  | 30-39 | 125 | 209.25 |
|  | 40-49 | 69 | 198.15 |
|  | 50-59 | 75 | 222.50* |
|  | 60 & more | 56 | 208.21 |
|  | Total | 412 |  |
| Autonomy | 20 – 29 | 87 | 237.59* |
|  | 30-39 | 125 | 237.44* |
|  | 40-49 | 69 | 192.25 |
|  | 50-59 | 75 | 200.88 |
|  | 60 & more | 56 | 114.21* |
|  | Total | 412 |  |
| Confidentiality | 20 – 29 | 87 | 207.86 |
|  | 30-39 | 125 | 220.48 |
|  | 40-49 | 69 | 203.91 |
|  | 50-59 | 75 | 225.81 |
|  | 60 & more | 56 | 150.50* |
|  | Total | 412 |  |
| Clear Communication | 20 – 29 | 87 | 188.59 |
|  | 30-39 | 125 | 242.90* |
|  | 40-49 | 69 | 184.44 |
|  | 50-59 | 75 | 237.57* |
|  | 60 & more | 56 | 138.64* |
|  | Total | 412 |  |
| Prompt Attention | 20 – 29 | 87 | 231.72* |
|  | 30-39 | 125 | 232.93* |
|  | 40-49 | 69 | 171.71 |

| | 50-59 | 75 | 191.15 |
| | 60 & more | 56 | 171.75 |
| | Total | 412 | |
| Quality of Basic Amenities | 20 – 29 | 87 | 231.09 |
| | 30-39 | 125 | 225.42 |
| | 40-49 | 69 | 198.49 |
| | 50-59 | 75 | 214.21 |
| | 60 & more | 56 | 125.61* |
| | Total | 412 | |
| Choice of Health Care Provider | 20 – 29 | 87 | 200.62 |
| | 30-39 | 125 | 234.96* |
| | 40-49 | 69 | 182.81 |
| | 50-59 | 75 | 232.40* |
| | 60 & more | 56 | 146.61* |
| | Total | 412 | |

*. There is significant difference.

**Table (12):**Kruskal Wallis Test of responses to the personal evaluation for the importance of each domain on a 0-10 scale (where 0 means not at all important and 10 means extremely important) in correlation to age groups.

**Test Statistics$^{a,b}$**

| Statistics Test | Dignity* | Autonomy* | Confidentiality* | Clear Communication* | Prompt Attention* | Quality of Basic Amenities* | Choice of Health Care Provider* |
|---|---|---|---|---|---|---|---|
| Chi-square Df Asymp. Sig. | 12.493 4 .014 | 54.053 4 .000 | 23.703 4 .000 | 51.976 4 .000 | 26.221 4 .000 | 42.031 4 .000 | 30.942 4 .000 |

a. Kruskal Wallis Test.
b. Grouping Variable: Age groups.
*. There is significant difference.

*Testing the correlation between the educational level and the personal evaluation for the importance of each domain on a 0-10 scale; where 0 means not at all important and 10 means extremely important (shown in tables "15" and "16"):*

There is significant difference in responses to the personal evaluation for the importance of each domain on a 0-10 scale (where 0 means not at all important and 10 means extremely important) in correlation to educational level; where:

Educational levels of "High school" and "College / University" are different in responses to Dignity; educational levels of "Less than primary school", "Primary school", "College / University" are different in responses to Autonomy; educational levels of "High school" and "College / University" are different in responses to Confidentiality; educational levels of "Primary school" and "College / University" are different in responses to Clear Communication; while educational levels of "Less than primary school", "Primary school", and "College / University" are different in responses to Prompt Attention, Quality of Basic Amenities, and Choice of Health Care Provider.

**Table (15):** Mean ranks of responses to the personal evaluation for the importance of each domain on a 0-10 scale (where 0 means not at all important and 10 means extremely important) in correlation to educational level.

| | Educational level | N | Mean Rank |
|---|---|---|---|
| Dignity | less than primary | 67 | 197.78 |
| | Primary | 44 | 184.86 |
| | Preparatory | 63 | 184.40 |
| | Secondary | 88 | 212.50 |
| | High School | 52 | 222.50* |
| | College / University | 98 | 222.50* |
| | Total | 412 | |
| Autonomy | less than primary | 67 | 116.39* |
| | Primary | 44 | 175.77* |
| | Preparatory | 63 | 221.98 |
| | Secondary | 88 | 193.77 |
| | High School | 52 | 217.50 |
| | College / University | 98 | 277.55* |
| | Total | 412 | |
| Confidentiality | less than primary | 67 | 152.96 |
| | Primary | 44 | 186.32 |
| | Preparatory | 63 | 178.57 |
| | Secondary | 88 | 197.50 |
| | High School | 52 | 230.81* |
| | College / University | 98 | 265.31* |
| | Total | 412 | |
| Clear Communication | less than primary | 67 | 189.46 |
| | Primary | 44 | 145.23* |
| | Preparatory | 63 | 198.79 |
| | Secondary | 88 | 206.41 |
| | High School | 52 | 194.65 |
| | College / University | 98 | 256.99* |
| | Total | 412 | |
| Prompt Attention | less than primary | 67 | 140.81* |
| | Primary | 44 | 148.68* |
| | Preparatory | 63 | 217.56 |
| | Secondary | 88 | 199.09 |
| | High School | 52 | 219.46 |
| | College / University | 98 | 270.04* |
| | Total | 412 | |
| Quality of Basic Amenities | less than primary | 67 | 143.97* |
| | Primary | 44 | 145.82* |
| | Preparatory | 63 | 199.28 |
| | Secondary | 88 | 189.48 |
| | High School | 52 | 224.58 |
| | College / University | 98 | 286.83* |
| | Total | 412 | |
| Choice of Health Care Provider | less than primary | 67 | 169.01* |
| | Primary | 44 | 132.41* |
| | Preparatory | 63 | 204.25 |
| | Secondary | 88 | 215.39 |
| | High School | 52 | 206.77 |
| | College / University | 98 | 258.71* |
| | Total | 412 | |

*. There is significant difference.

**Table (16):**Kruskal Wallis Test of responses to the personal evaluation for the importance of each domain on a 0-10 scale (where 0 means not at all important and 10 means extremely important) in correlation to educational level.

**Test Statistics[a,b]**

| Statistics Test | Dignity* | Autonomy* | Confidentiality * | Clear Communication * | Prompt Attention* | Quality of Basic Amenities * | Choice of Health Care Provider* |
|---|---|---|---|---|---|---|---|
| Chi-square | 32.111 | 86.530 | 65.923 | 41.549 | 71.823 | 98.005 | 47.895 |
| Df | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Asymp. Sig. | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

a. Kruskal Wallis Test.
b. Grouping Variable: Educational level.
*. There is significant difference.

# DISCUSSION

The best performing domain in the study was dignity "64.3%" followed by clear communication "56.3%" and prompt attention "50.5%", while the worst performing domain was autonomy "29.1%" and quality of basic amenities "34%", which came in agreement with **Letkovicova et al. (2005)** who mentioned that; Best performing domains:In ambulatory care services, patients are most likely to report good responsiveness for dignity (97%) and confidentiality (97%). Worst performing domains:Patients report poor responsiveness most often for the domains of autonomy (13%) and basic amenities (11%). Although prompt attention is rated as the most important domain, its responsiveness performance is reported as relatively poor. Also, the domain of communication is rated as important but is perceived as poor performing. However, dignity, one of the most important domains, is seen to be performing relatively well. Other domains performing well include confidentiality and basic amenities though they are perceived to be relatively less important domains. **Background Paper for the Technical Consultation on Responsiveness Concepts and Measurement, Geneva, Switzerland, WHO (2001)** mentioned that prompt attention is the least well performing domain.

The most important domain was *dignity* all over the hospitals and institutes included in the present study, while the least important domain was *autonomy* all over the hospitals and institutes included in the present study except in NIN; the respondents rated *prompt attention* as the least important domain, which came in agreement with **Letkovicova et al. (2005)** who mentioned that; prompt attention was rated as the most important domain, and the least important domains are quality of basic amenities and access of social support.

In the present study, results showed that the most important domain was dignity, while the least important domain was autonomy. This is not in agreement with the **Multi Country Survey Study; Health System Responsiveness – Sample Report (2001)** which reported the prompt attention as the most important domain and quality of basic amenities as the least important domain; and **Background Paper for the Technical Consultation on Responsiveness Concepts and Measurement, Geneva, Switzerland, WHO (2001)**, which reported that health systems appear to exhibit the highest attainment in the responsiveness domain of outpatient choice of health care provider.

This difference between the present results with other previous studies may be because of the different cultures, ethnicities, or religions[8].

## CONCLUSION

Age and educational level had influences on the responses to the questionnaire in this study. It was found that the total responsiveness is moderate all over the hospitals and institutes. The total responsiveness was ranked from the highest to lowest as following: GTH, MTH, NIN, NINMS, STH, and then AMTH; with dignity was the most important domain and autonomy was the least important domain. Dignity was the highest rated as important domain followed by confidentiality and clear communication, while quality of basic amenities, prompt attention, choice of

health care provider, and autonomy were moderately important domains.

Dignity, confidentiality, clear communication, prompt attention, and choice of health care provider were well acting; while quality of basic amenitiesand autonomy were not well acting. All over, there was no excellence in performing any domain.

## REFERENCES

1.  **Gilson L., Alilio M., and Heggenhougen K. (1994).** Community satisfaction with primary health care services: an evaluation undertaken in the Morogoro region of Tanzania. Social Science and Medicine; 39(6):767–780.
2.  **World Health Report (2000).** Health systems: improving performance. ISBN 92 4 156198 X (NLM Classification: WA 540.1) ISSN 1020-3311.
3.  **Letkovicova H., Prasad A., La Vallée R., and Adhikari P. (MCSS) (2005).** The Health Systems Responsiveness Analytical Guidelines for Surveys in Multi-Country Survey Study. World Health Organization.
4.  **Bassett M.T., Bijlmakers L., and Sanders D.M. (1997).** Professionalism, patient satisfaction and quality of health care: experience during Zimbabwe's structural adjustment program. Social Science and Medicine; 45(12):1845–1852.

5. **Hurst J. (2000).** Challenges to health systems in OECD countries. Bulletin of the World Health Organization; 78(6):751-760.

6. **Donelan K., Binns K., Blendon R. J., Davis K., and Schoen C. (1999).** The cost of health system change: public discontent in five nations. Health Affairs; 18(3):206–216.

7. **Background Paper for the Technical Consultation on Responsiveness Concepts and Measurement (2001).** Geneva, Switzerland, WHO.

8. **Multi Country Survey Study; Health System Responsiveness – Sample Report (2001).** World Health Organization.

9. **Bleich S. N., Murrayc C. J. L., andÖzaltinb E. (2009).** How does satisfaction with the health-care system relate to patient experience? *Bull World Health Organ* 87:271–278doi:10.2471/BLT.07.050401.

10. **Beauchamp T., and Childress J. (1989).** Principles of Biomedical Ethics; 3rd Edition, Oxford, Oxford University Press.

11. **Hall J., Irish J., Roter D., Ehrlich C., and Miller L. (1994).** Satisfaction, Gender, Communication in Medical Visits. Medical Care; 32(12):1216-1231.

12. **Charles C., Gafni A., and Whelan T. (1997).** Shared decision-making in the medical encounter: What does it mean? Social Science & Medicine; 44(5):681-692.

13. **Austoker J. (1999).** Gaining Informed Consent for Screening. BMJ; 319:722-723.

14. **Bernhart M., Wiadnyana G., Wihardjo H., and Pohan I. (1999).** Patient Satisfaction in Developing Countries. Social Science and Medicine; 48:989-996.

15. **de Silva A. and Valintine N. (2000).** Measuring Responsiveness: Results of a Key Informant Survey in 35 Countries, GPE Discussion Paper Series: No.21, EIP/GPE/FAR, World Health Organization.

16. **Valentine N., de Silva A., Kawabata K., Darby C., Murray C., and Evans D. (2003).** Health System Responsiveness: Concepts, Domains, and Operationalization. In **Murray C. J. L., Evans D. B.** (Eds) Health Systems Performance Assessment: Debates Methods, and Empiricism. Geneva, World Health Organization; pp. 573-96.

17. **Üstün T. B., Chatterji S., Villanueva M., Bendib L., Çelik C., Sadana R., Valentine N., Ortiz J., Tandon A., Joshua Salomon, Cao Y., Jun X. W., Özaltin E., Mathers C., and Murray C. J. L. (2001).** WHO Multi-country Survey Study on Health and Responsiveness 2000-2001. GPE Discussion Paper 37.

18. **Hunke S., (1993)**. Allah IstGanz Anders Enthüllung von 1001 Vorurteileüber die Araber, 8ᵗʰ Ed. translated into Arabic; pp. 227-228.

19. **Attewell, G. (2003).** Islamic Medicines: Perspectives on the Greek Legacy in the History of Islamic Medical Traditions in West Asia, In **Selin, H.** (Ed.). *Medicine Across Cultures: History and Practice of Medicine in Non-Western Cultures;* pp. 325-350.

20. **Ibrahim B., (2006)**. Efficient Hospitals: Islamic Medicine's Contribution to Modern Medicine. http://WWW.IRFI.ORG

21. **Al Hassani S., Saoud R., and Woodcock E., (2007).** 1001 Inventions Muslim Heritage in Our World; 2ⁿᵈ Ed., pp. 153-191. The Foundation for Science, Technology, and Civilization (FTSC), United Kingdom.

22. **Multi-Country Survey Study, Brief Questionnaire (2000 – 2001).** WHO Survey on Health and Health System Responsiveness, World Health Organization.

23. **Multi-Country Survey Study, Long Questionnaire (2000 – 2001).** WHO Survey on Health and Health System Responsiveness, World Health Organization.

24. **Key Informant Survey Questionnaire (2001).** World Health Organization.