

#### مجلة إدارة الجودة الشاملة

## Journal homepage: <a href="http://journals.sustech.edu/">http://journals.sustech.edu/</a>



## Assessment of Empathy & Responsiveness Dimensions in drugs service quality in National health Insurance Fund (White Nile State)

#### Abdelmoniem Bashir Ahmed and Ali AbdallahAlhakim

Professor, Sudan University of Science & Technology. PhD. Student, Sudan University of Science & Technology.

المستخلص:

الهدف من هذه الورقة هو فهم وتحديد محاور التعاطف والاستجابة كعوامل تؤثر على جودة الخدمة الدوائية التي يقدمها الصندوق القومي للتامين الصحى ولاية النيل الابيض بجانب تقييم جودة الخدمة الدوائية من خلال محور التعاطف الجيد والاستجابة, للوصول للاهداف الموضحة اعلاه تم الاعتماد علي الدراسات السابقة ومن ثم تم أخد عينة بسيطة من مجتمع الدراسة للاجابة علي اسئلة الاستبانة التي استخدمت كأداة رئيسية لجمع البيانات, وتم تحليلها بواسطة برنامج الحزم الاحصائية لتحليل البيانات (SPSS). وقد أوضحت نتائج الدراسة بان هناك تطور في جودة خدمة الدواء في الصندوق القومي للتامين الصحى (ولاية النيل الابيض) له علاقة ذات دلالة احصائية بمحوري التعاطف والاستجابة الواضحة من خلال رضاء العملاء.

الكلمات المفتاحية: بعد التعاطف (فهم احتياجات الزبائن), الاستجابة (رغبة العاملين في خدمة الزبائن), جودة الخدمة الدوائية

#### **Abstract**

The aim of this paper was to understand and determine the empathy &responsiveness dimensions that affecting the drug services quality in National Health Insurance Fund (White Nile State), besides assessing drug services quality as reflected in empathy and responsiveness dimensions. The study adopted the descriptive method. The measurement of the study was developed based on the previous studies. Random samples procedure had been chosen and structured questionnaire had been used as main tool for data collection. The Statistical Package for Social Science (SPSS) was used for data analysis. The results of the study show that statistically: the drug services in National Health Insurance Fund-White Nile State was improved based on empathy &responsiveness dimensions that appeared in customer satisfaction.

**Key word:** Empathy( understanding the customers' personal needs, taking care of them) responsiveness (willingness of the employees to serve customers quickly and properly) and quality of drug services.

#### Introduction

#### **Background**

Service quality is a concept that has aroused considerable interest and debate in research literature because of the difficulties in both defining it and measuring it with no overall consensus. There are a number of different "definitions" as to what is meant by service quality, one that is commonly used defines service quality as the extent to which a service meets customers' needs or expectations in addition to that always there exists an important question: why should service quality be measured?

Measurement allows for comparison before and after changes, for the location of quality related problems and for the establishment of clear standards for service delivery. Also in similar area, the starting point in developing quality in services is analysis and measurement. While there have been efforts to study service quality, there has been no general agreement on the measurement of the concept (Anna Bulajeva, 2010).

Efforts to improve public health can be performed by a pharmacist in a pharmacy by applying the concept of pharmaceutical services (Wathoni and Rahayu, 2014). Although pharmacy services are an integral part of health care system, there are limited researches regarding service quality in this field. Also the important of the pharmacy in social as well as a functional role within an integrated health care system. In addition to that Anna Bulajeva (2010) mentioned that "the Pharmacists' services and involvement in patient-centered care have been associated with improved health and economic outcomes, a reduction in medicine-related adverse events, improved quality of life, and reduced morbidity and mortality", and also a recent review investigated the effectiveness of professional pharmacist services in terms of consumer outcomes, and where possible the economic benefits. Then according to Wathoni and Rahayu, (2014), Development of the pharmacy system and service is not only important from the viewpoint of the pharmacist as an entrepreneur, but also from the viewpoint of the whole society. Thus from the above mentioned implementation and practice of pharmaceutical care must be supported and improved by measuring, assessing and improving pharmacy practice activities, utilizing the conceptual framework of continuous quality improvement". A key lesson is that in many cases quality of pharmacy services can be improved by making changes to the health care system or pharmacy system without necessarily increasing resources. Improving the processes of pharmacy practice not only creates better outcomes but also reduces cost through eliminating waste, unnecessary work and repetition of work already done. Thus quality improvement must address both the resources and activities carried out to ensure or improve the quality of pharmaceutical care. Therefore according to Anna Bulajeva (2010)clearly, from a Best Value perspective the measurement of service quality in the service sector should take into account customer expectations of service as well as perceptions of service. However, as Robinson (1999) concluded that, "It is apparent that there is little consensus of opinion and much disagreement about how to measure service quality".

1. SERVQUAL as the most often used approach for measuring service quality has been to compare customers' expectations before a service encounter and their perceptions of the actual service delivered (Grönroos, 1984; Lewis and Booms, 1983; Parasuraman et al., 1985). The SERVQUAL instrument has been the predominant method used to measure consumers' perceptions of service quality. SERVQUAL has five generic dimensions or factors (tangible, reliability, responsiveness, assurance, and empathy (van Iwaarden et al., 2003). The SERVQUAL instrument distinguishes five service quality dimensions: reliability (ability of an organization to accurately achieve its services in the proper time and according to the promises it has made to its clients), assurance (feelings of trust and confidence in dealing with the organization. This reflects the workers' knowledge and experience and their ability to build self-confidence as well as confidence in the customers themselves), tangibles (physical aspects of the service such as physical facilities, appearance of personnel,

tools or equipment that is used to provide the service, physical representations or other customers in the service facility), responsiveness (tendency and willingness of service providers to help clients and satisfy their needs, immediately reply to their inquiries, and solve their problems as quickly as possible) and empathy (understanding the customers' personal needs, taking care of them individually and showing them all sorts of sympathy and affection, looking at them as close friends and distinguished clients ), which generally cover functional and tangible environmental aspects of services. SERVQUAL has been widely applied in health care industry, but the empirical results rarely showed the consensus on the number of quality dimensions. Still, SERVQUAL has been recognized as highly valuable instrument for measuring service receiver's opinion about quality Zaneta & Ausra (2013).

#### **Problem statement**

Recent management philosophy has shown increasing confidences of the importance of customer focus and customer satisfaction in any business. The National Health Funds customers were not satisfied; they will eventually make to find other provider that will meet their needs. Poor performance from this perspective is thus representing a leading indicator of future decline. Even though the National Health Insurance Fund (NHIF-WNS) spends more than 45% of its total budget annually to the drugs service, thus there is an increasing customer complain.

#### **Objectives:**

The main objective of this paper is to asses an improvement of drugs service quality in NHIF-WNS, and specifically:

- 1. To understand and determine the empathy & responsiveness dimensions that affected the drugs service quality in NHIF-WNS.
- 2. To assess drugs service quality in NHIF-WNS as reflected in empathy & response dimensions.

#### **Hypotheses**

H1: There is a direct relation between NHIF-WNS provider's empathy towards NIHF-WNS customers and drugs service quality.

H2: drugs service quality increases when NHIF-WNS employee responsiveness to the customer needs & complain

#### Materials & methods:

A comprehensive review of existing literature was previously carried out in order to identify the service quality measures to measure the gap between National Health Insurance Fund in White Nile state (NHIF-WNS) customer expectation and perception. In order to test its convenience for use, a questionnaire form designed, administered through the National Health Insurance Fund in White Nile State (NHIF-WNS) drugs service quality.

#### Design of the questionnaire form

The questionnaire form designed to meet the objectives of the study, namely to determine the NHIF-WNS customers' expectations and perceptions. A questionnaire survey was then developed consisting of questions that inquire about the drugs quality service dimensions that measure the main variables; each question was associated with constituent variables.

#### The study population and sample

The study population consisted of all insured persons who are currently registered in the lists of beneficiaries of National Health Insurance fund in White Nile State (NHIF-WNS). National Health Insurance Fund in White Nile State has "579,014" insured persons, distributed in four operational units. For the purpose of this a study "210" persons were randomly chosen to represent the research sample. The sample that selected was distributed as cluster stratified as follow: "109 in Kosti unit" out of 301,087 in Kosti health insured persons, "37in Rabakunits" out of 104,223in Rabak health insured persons, "42 in Elduiem units" out of 115,802inElduiem health insured persons, and "22 in Elgitaina unit" 057,90 out of Elgitaina health insured persons. This distribution based on the unit's population density, then (206) questionnaire forms were received, while (4) forms of questionnaire were damaged which represent 2%.

#### **Data collection procedure**

The questionnaire was administered through the insured persons who are registered in the lists of NHIF-WNS, this tool described the objectives of the study and asked customer to participate in this study. A pilot study executed to test the applicability and consistency of the questionnaire components and based on the test result a two hundred & ten questionnaire forms were completed, administered and analyzed by computer software (SPSS).

#### Data analysis

#### Responsiveness dimension

Taking action immediately in this factor according to the respondents 47% shows that the provider in NHIF-WNS deciding in solving customer problems beside 38.4 of respondents stated that the provider not decided, but in the factors of telling the customer exactly when services will be performed is (63.1%) and give prompt drug service is (64.5%) which indicate that the provider might NHIF-WNS employees follows the regulation as it is, but in the same factor employee help people and they are not busy to respond to the customer which indicate that the provider concerned about satisfying the customer needs (61.2%)

#### **Empathy dimension**

NHIF-WNS providers concerned about the customer needs are appear in the answers of respondent's (61.6%), provider listening to and give customer special attention and also NHIF-WNS provider give them a personal attention (44.7%) in addition to direct their attentions to the best interest ,of and understand carefully to customer needs (57.3%) and (58.7%).

#### Services quality

NHIF-WNS provide good quality drug services that satisfied its customer which appeared in the respondents answers (48.5%) and (51.4%) that clear and consistence with recommendation of customer and to other continue in using NHIF-WNS services (65%) and subscribing in the NHIF-WNS as provider health organization (70.9%).

#### **Discussions:**

## H1: There is a direct relation between provider's empathy towards NIHF-WNS customers and drug services quality.

To test the validity of this sub hypothesis the study adopted (T)test for the above relation.

Table (1) (T test) for empathy & services quality

| Dimension       | Statistics               | Empathy | Service quality |
|-----------------|--------------------------|---------|-----------------|
| Empathy         | Correlation co-efficient | 1.000   | .86             |
|                 | Significance             | •       | .000            |
| Service quality | Correlation co-efficient | .86     | 1.000           |
|                 | Significance             | .000    |                 |

Table (1) showed that the value of the coefficient of correlation between the empathy dimension and the drug services quality is 0.86, and it shows that there is a positive and direct correlation, and it is also significant because the value of the statistical significance level=0.000 at  $\alpha = 0.005$ .

## H2: drug service quality increases when NHIF-WNS employee response to the customer needs & complain.

For test of the validity of the above hypothesis, the study adopted(T) test between the responsiveness dimension and the services quality.

Table (2) (T test) between responsiveness & services quality

| Dimension       | Statistics               | Responsiveness | Service quality |
|-----------------|--------------------------|----------------|-----------------|
| Responsiveness  | Correlation co-efficient | 1.000          | .79             |
| -               | Significance             | •              | .000            |
| Service quality | Correlation co-efficient | .79            | 1.000           |
|                 | Significance             | .000           |                 |

Table (2) showed that the value of the coefficient of the correlation between the responsiveness dimension and services quality was found 0.79 and it shows that there is a direct relation, and it is also significant because the value of the statistical significance level = 0.000 at  $\alpha = 0.005$ .

The reliability values are satisfactory since the Cronbach's alpha coefficients are all above 0.70, the minimum value recommended by Nunnally (2010) as in table (3).

Table (3) Cronbach's alpha of latent variables

| Servqual dimensions      | Cronbach's alpha |
|--------------------------|------------------|
| Responsiveness dimension | 0.84             |
| Empathy dimension        | 0.85             |
| Service quality          | 0.81             |

The correlation metric calculated for all construct shows that all intercorrelations are below 0.9 as in tables (1), (2) and (4) suggesting that there is no multi collinearity (Hair et al. 2009), but indicating that the constructs have discriminant validity and these correlation provide evidence that they are complementary.

Table (4) The (T) test for questionnaire data

| T3 (Service quality) | T2 (Responsiveness) | <b>T1</b><br>(Empathy) |                         |           |                   |
|----------------------|---------------------|------------------------|-------------------------|-----------|-------------------|
| .860                 | .832                | 1.000                  | Correlation Coefficient | T1        | Spearman's<br>rho |
| .000                 | .000                |                        | Sig. (2-tailed)         |           |                   |
| 206                  | 206                 | 206                    | N                       |           |                   |
| .790                 | 1.000               | .832                   | Correlation Coefficient | <b>T2</b> |                   |
| .000                 |                     | .000                   | Sig. (2-tailed)         |           |                   |
| 206                  | 206                 | 206                    | N                       |           |                   |
| 1.000                | .790                | .860                   | Correlation Coefficient | <b>T3</b> |                   |
|                      | .000                | .000                   | Sig. (2-tailed)         |           |                   |
| 206                  | 206                 | 206                    | N                       |           |                   |

#### **Conclusions:**

- The study concluded that the customers of NHIF-WNS were satisfied about the drug services quality.
- This study concluded that the NHIF-WNS provider deals with the customers in a good manner specifically in listening and giving individual personal attentions with understanding customer specific need as stated in empathy of the provider.
- NHIF-WNS employee concerned in responsiveness about satisfying customer needs by taking action immediately which shows that the provider deciding in solving customer problems in addition to that they tell the customer exactly when services will be performed and give prompt drug service which indicate that the provider might follow the regulation as it is, also NHIF -WNS employee help people and they are not busy not to respond to the customer needs.
- The study investigated the influence of responsiveness and empathy of drugs service and its impact in quality of drug services as reflected in customer satisfaction.
- The study proved that statistically there is a direct relation between provider's empathy towards NIHF-WNS customers and drug services quality.
- The study proved that statistically the drugs service quality increases when NHIF-WNS employee response to the customer needs & complain.
- In summary the study concluded that the drugs service quality in NHIF-WNS was improved based on empathy & responsiveness dimensions that appeared in customer satisfaction.

#### **References:**

Anna Bulajeva, 2010, "Master's Thesis", University of Helsinki, Division of Social Pharmacy.

A, Parasuraman, Valarie A. Zeithamel, Leonard L. Berry, (1985), "A conceptual model of service quality and it's important for future research", The journal of marketing, Vol. 49, (04), pp. 41-50.

Dunn, S. C., Seaker, R. F. and Waller, M. A., (1994), "Latent variables in business logistics research: scale development and validation", Journal of Business Logistics, Vol. 15, (2), pp. 145-172.

Grönroos, C., (1984), "A service quality model and its marketing implications", European Journal of Marketing, Vol. 18 (4), pp. 36-44.

Hair, Jr, j, F., Anderson R.E, Tathman, R. L. and Black ,W.C., (2009), "Multivariate data analysis", Prentice-Hall, Englewood Cliffs, N.J.

Nasrul Wathoni and Susi Afrianti Rahayu, (2014), "A survey of consumer expectation in community pharmacies in Bandung, Indonesia", Journal of Applied Pharmaceutical Science Vol. 4, (01), pp. 084-090.

Nunnally j., (2010), "Psychometric theory", McGraw -Hill, New York, NY.

Steward Robinson, (1999), "Measuring service quality: current thinking and future requirement", Marketing intelligence and planning, Vol. 17, (01), pp. 21-32.

Lewis, R.C. & Booms, B.H. (1983), "The marketing aspects of service quality in Berry, L., Shostack, G. & Upah, G. (Eds). "Emrging Perspectives on Service Marketing", pp. 099-107, Chicago, LL: American Marketing Association.

Jos Van Iwaarden, Ton van der Wiele and Leslie Ball and Robert Millen, (2003), "Applying SERVQUAL to web sites: an exploratory study", International journal of Quality & Reliability Management, Vol. 20, (8), pp. 919-935.

Zaneta Piligrimiene & Ausra Rutelione (2013), "Dual side of health care services quality: What is really important for patient", Economics and management, Vol. 18, No. 1, pp. 112-123.

#### **Appendix**

# SUDAN UNIVERSITY OF SCIENCE & TECHNOLOGY COLLEGE OF GRDUATE STUDIES & SCIENTIFIC RESEARCH QUALITY CENTER

#### **QUESTIONNAIRE FOR DRUG SERVICES QUALITY**

#### **SECTION A:**

## **BACKGROUND INFORMATION OF RESPONDENT (Please tick where applicable)**

| Gender         | Male          |        |                    |         | Female    |         |                |              |  |
|----------------|---------------|--------|--------------------|---------|-----------|---------|----------------|--------------|--|
|                |               |        |                    |         |           |         |                |              |  |
| Age (yrs)      | < 20          | 21 - 2 | 25                 | 26 - 30 | 31 - 35   | 36 -    | 40             | > 41         |  |
|                |               |        |                    |         |           |         |                |              |  |
| Marital status | Single        | ngle   |                    | Marr    | Married   |         | Others specify |              |  |
|                |               |        |                    |         |           |         |                |              |  |
| Occupation     | Executive pos | t l    | Non-executive post |         | Self-empl | oyed Ot |                | hers specify |  |
|                |               |        | 1                  |         |           |         |                |              |  |

#### **SECTION: B**

#### **GENERAL INFORMATION**

| Type of customer (PATIENT) sector | Pension | Public | Student | Subsidized | Private | Free |
|-----------------------------------|---------|--------|---------|------------|---------|------|
|                                   |         |        |         |            |         |      |
| Do you have a chronic disease     |         | Yes    |         |            | No      |      |
|                                   |         |        |         |            |         |      |

| Have you ever received any service      | Yes         |  |            | No     |
|---|-------------|--|------------|--------|
| pharmaceutical health insurance before? |             |  |            |        |
| Place of residence from pharmacy        | Nearby Betw |  | etween     | So far |
|   |             |  |            |        |
| Where you live?                         | Urban area  |  | Rural area |        |
|   |             |  |            |        |

#### **SECTION C:**

### SERVICE QUALITY DIMENSIONS

Please make a tick  $(\sqrt{})$  in appropriate answers:

Strongly disagree = 1, Disagree = 2, Moderate = 3, Agree = 4, and strongly agree = 5

| # | RESPONSIVENESSDIMENSION  | 1 | 2 | 3 | 4 | 5 |
|---|--|---|---|---|---|---|
| 1 | Employees in NHIF pharmacy take action immediately when I make complain                        |   |   |   |   |   |
| 2 | Employees in NHIF pharmacy tell me exactly when services will be performed                     |   |   |   |   |   |
| 3 | Employees in NHIF pharmacy give prompt services  |   |   |   |   |   |
| 4 | Employees in NHIF pharmacy are always willing to help me if I have problems with drug services |   |   |   |   |   |
| 5 | Employees in NHIF pharmacy are never too busy to respond to my request                         |   |   |   |   |   |

| # | EMPATHY DIMENSION                                       | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | Employees of NHIF pharmacy listen carefully to my needs |   |   |   |   |   |
| 2 | Employees in NHIF pharmacy give me individual attention |   |   |   |   |   |
| 3 | NHIF has operating hours convenient to all its patients |   |   |   |   |   |
| 4 | NHIF has Employees who give me apersonal attention      |   |   |   |   |   |
| 5 | NHIF has my best interest at heart                      |   |   |   |   |   |
| 6 | Employees in NHIF pharmacy understand my specific needs |   |   |   |   |   |

| # | SERVICES QUALITY  |  | 2 | 3 | 4 | 5 |
|---|---|--|---|---|---|---|
| 1 | Over all NHIF provides good quality services to its customer (patients) |  |   |   |   |   |
| 2 | I am satisfied with NHIF services                                       |  |   |   |   |   |
| 3 | I will continue using the provided services                             |  |   |   |   |   |
| 4 | I will recommend NHIF to other people                                   |  |   |   |   |   |