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DETERMINANTS OF SATISFACTORY HEALTH SERVICES IN THE CITY OF TSHWANE

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ABSTRACT --*Residents of the City of Tshwane require satisfactory health care services from health professionals working in health facilities. The study has identified three key predictors of satisfactory health services. The aim of study was to determine predictors of adequate health service delivery in public health facilities. The research was motivated by perceived lack of adherence to the integrated development plan (IDP) that was developed for ensuring an optimal provision of basic health care services to residents of the City of Tshwane. As part of the study, information was gatthered from 420 households. Factor analysis was used for identifying key predictors of health service delivery. Diagnostic procedures showed that all fitted models were theoretically reliable. About 65% of households were happy with the quality of health care services provided to residents. Findings of the study indicate that substantial adherence to the integrated development plan (IDP) of the City is helpful for enhancing the quality of basic health service delivery in the City of Tshwane.*

Keywords*-- City of Tshwane, Health service delivery, Service quality, Perception, Factor analysis*

I. INTRODUCTION AND BACKGROUND TO STUDY

The City of Tshwane provides basic health services to all its residents in collaboration with the South African National Department of Health (DOH) at designated health facilities such as clinics and health posts. The City of Tshwane provides Antenatal and Postnatal Health Care services, Anti-Retro Viral Treatment services, Chronic Care services, Dental Care services, Direct Observed Treatment Support services, Emergency Care services, Family Planning services, HIV Counselling and Testing services, Home Based Care services, and Immunisation services to residents of the City of Tshwane at designated health facilities.

The City of Tshwane (2018) provides 19 categories of health related services in 21 health facilities in collaboration with the South African National Department of Health, the Gauteng Provincial Department of Health and the South African Medical Research Council. The services provided are Antenatal and Postnatal health care services, anti-retroviral treatment, chronic care treatment, dental care treatment, direct observed treatment support, emergency medical care services, family planning services, HIV counselling and testing services, homebased care services, vaccination and immunisation services, integrated management of childhood illnesses, out-patient acute curative services, prevention of mother-to-child transmission of HIV, psychiatric services, sexually transmitted

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infections, sick baby services, weigh-and-advise services, termination of pregnancy services, and tuberculosis treatment services.

Very few studies of this kind have been conducted within the DOH. As such, findings of the study are quite valuable to the DOH for improving the quality of basic health services that are provided to residents of Tshwane. It is essential to monitor and evaluate the quality of basic health service delivery in the City of Tshwane (Althoff, Rebeiro, Brooks, Buchacz, Gebo, Martin, Hogg, Thorne, Klein, Gill & Sterling 2014). Workplace training has been found to be helpful for minimising wastage of public finance and resources (Anhang Price, Elliott, Zaslavsky, Hays, Lehrman, Rybowski, Edgman-Levitan & Cleary, 2014). The ability of the DOH to achieve this goal depends on the degree to which it motivates its health professionals at work. Improving productivity by health professionals will enable the DOH to utilise scarce resources optimally.

II. OBJECTIVES OF STUDY

The objectives of study were to determine the perception of residents living in Tshwane about the quality of basic health services that are provided to the public, and to identify predictors of satisfactory health care services.

III. LITERATURE REVIEW

Access to basic health services is a basic right of all South Africans (South African Government Communication and Information System, 1996). The South African National Department of Health (2018) is also responsible for ensuring the quality of health related services that are provided to all South Africans. The vision of the South African National Department of Health is to provide quality and affordable basic health services to all inhabitants in the region. Its mission is to improve the health status of all South Africans through the prevention of illnesses and the promotion of healthy lifestyles and to consistently improve the healthcare delivery system by focusing on access, equity, efficiency, quality and sustainability (South African National Department of Health, 2018). Employees of the South African National Department of Health (DOH) work hand-in-hand with the City of Tshwane in the provision of health related services to the public. The DOH plays a critical role in the provision of suitably trained and equipped health professionals at each health facility in the City of Tshwane. The DOH assists the City of Tshwane by providing health professionals and essential medicines and drugs at each designated health facility. No health service delivery can be provided to residents of the City of Tshwane by the DOH without collaboration with the City of Tshwane. As such, is strategically crucial for the DOH to work closely with the City of Tshwane at all times. The DOH and City of Tshwane use operational and strategic programmes of action that are aligned closely with each other. A review of the literature shows that the same strategy is used in the rest of the world (World Health Organization 2018, April). Both the DOH and City of Tshwane provide workplace training to employees providing health related services to the public in areas that are relevant to the Key Performance Areas (KPAs) and Key Performance Indictors (KPIs) of employees.

The study conducted by Berwick, Kelley, Kruk, Nishtar and Pate (2018) have pointed out that the use of an integrated health services model is ideal for providing satisfactory basic health services to residents of developing

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cities such as the City of Tshwane. Employees working for the DOH must be adequately skilled and equipped in order to provide satisfactory services to residents of the City of Tshwane. Freedman and Kruk (2014) have shown that people must be served with dignity and respect at all designated health facilities. The authors have recommended the provision of incentives such as workplace training and rewards to top-performing employees working in public health service facilities.

Friedberg, Hussey and Schneider (2010) have shown that the provision of primary health care services must be monitored and evaluated at all times in order to ensure the provision of satisfactory health services to members of the community. The Key Performance Areas (KPAs) and Key Performance Indicators (KPIs) of health service providers must be aligned with clearly defined health service outcomes. Chinguno (2015) has shown that health planners and policy makers must ensure the availability of an enabling working environment for employees working in service delivery institutions. The author has shown that all stakeholders must protect essential services such as health services in order to save lives.

Acharya, Maru, Schwarz, Citrin, Tenpa, Hirachan, Basnet, Thapa, Swar, Halliday and Kohrt (2017) have argued that strategic partnerships are vital for alleviating resource constraints in the course of health service delivery. The authors have recommended the use of integrated health service plans of action in which the KPAs and KPIs of health professionals are aligned with the health needs and priorities of communities. Adam (2014) has shown that trust between Tanzanian health care providers and community members is a key requirement for satisfactory health service delivery. Aghamolaei, Eftekhaari, Rafati, Kahnouji, Ahangari, Shahrzad, Kahnouji and Hoseini (2014) have developed a service quality framework that could be used for ensuring satisfactory health service delivery in hospitals operating in developing municipalities. The key aspects of the framework are guidelines that are recommended by the World Health Organization (WHO). Ensuring job satisfaction among employees is a key requirement for satisfactory service delivery (Ali, 2016).

IV. METHODS AND MATERIALS OF STUDY

The study was exploratory in nature, and descriptive methods were used for performing the analyses of data sets collected from 420 residents of Tshwane as part of the study. The five geographical zones of Tshwane (central, east, west, north and south) were used for stratifying the population of Tshwane. Frequency tables, crosstab analyses and factor analysis (Cohen, West & Aiken, 2013) were used for data analyses. At each household, heads of households were interviewed. Data was collected from each household on one dependent variable of study (perception held about the quality of health services provided to residents of Tshwane at designated health service facilities) and 19 predictors of health service delivery. The dependent variable of study was a measure of the perception held by respondents about the quality of basic health services provided to residents of the City of Tshwane (Positive, Negative). Data was collected from respondents on various independent variables of study. Examples of such variables are level of education, occupation, gender, age, marital status, suburb, race, length of stay in residential area, family size, and utilisation of health-related services. Ethical approval was obtained from the Ethics Committee of Tshwane University of Technology in Pretoria.

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V. RESULTS OF STUDY

Table 1 shows that 65% of respondents had positive perceptions about the quality of basic health services that were provided to them by employees of the DOH and City of Tshwane at designated health facilities. The table also shows that the remaining 35% of respondents had negative perceptions about the quality of basic health services provided to them. The table provides percentages for the general characteristics of respondent. The figures shown in Table 1 are normal for a developing municipality in Sub-Saharan African countries by the standards of WHO (2018) and UNICEF (2019).

Table 1: General characteristics of residents (n=420)

Characteristic	**Percentage**
Perception on the quality of basic health services provided to residents of the City of Tshwane	Positive: 65.00% Negative: 35.00%
Degree of satisfaction with the quality of basic health services provided to residents of the City of Tshwane	Highly satisfied: 5.83% Satisfied: 58.33% Not sure: 27.50% Dissatisfied: 7.50% Highly dissatisfied: 0.83%
Age category of respondents in years	20 years or less: 5.83% 21 to 40: 52.50% 41 to 60: 30.83% 61 or more: 10.83%
Gender of respondent	Male: 50.83% Female: 49.17%
Marital status	Single: 17.50% Married: 46.67% Divorced: 11.67% Widowed: 7.50% Living together: 16.67%

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Race category of respondent	African: 76.67% White: 12.50% Coloured: 5.00% Indian: 5.00% Asian: 0.83%
Period of residence in years	Less than 5 years: 15.00% 5 to 10 years: 26.67% More than 10 years: 58.33%
Number of people in household	5 or less: 40.83% More than 5: 59.17%
Highest level of education	Master's degree or above: 15.83% Bachelor's degree: 12.50% Certificate or Diploma: 25.83% Grade 12 or less: 45.83%

Table 2 shows the occupations held by respondents. About 30% of respondents were civil servants who worked in various Government Departments. About 12% of respondents were academics.

Table 2: Occupation of residents (n=420)

Characteristic	**Percentage**
Occupation of respondent	Civil servant: 30.00% Academic: 11.67% Construction: 10.00% Academic: 11.67% Entrepreneur: 12.50% Farming: 5.83% Health professional: 7.50% Hotel industry: 3.33% Security industry: 5.00% Transport: 9.17%

Table 3 shows a frequency table for the degree to which basic health services were utilised by respondents.

Table 3: Utilisation of basic health services by respondents (n=420)

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Type of basic health service	Percentage
Family planning services	Yes: 58.33% No: 41.67%
Voluntary counselling and testing services	Yes: 64.17% No: 35.83%
Termination of pregnancy services	Yes: 41.67% No: 58.33%
Tuberculosis services	Yes: 92.50% No: 7.50%
HIV and AIDS services	Yes: 50.83% No: 49.17%
Antenatal and postnatal health care services	Yes: 48.33% No: 51.67%
Immunisation services	Yes: 83.33% No: 16.67%
Directly Observed Treatment Services (DOTS)	Yes: 42.50% No: 57.50%
Out Patients Department Services (OPD)	Yes: 99.17% No: 0.83%
Emergency Medical Care Services (EMC)	Yes: 54.17% No: 45.83%
Psychiatric care services	Yes: 54.17% No: 45.83%

Table 4 shows estimates obtained from two-by-two crosstab analyses in which 3 factors that were significantly associated with the quality of basic health services are identified. All 3 factors have P-values that are smaller than 0.05.

Table 4: Factors associated with positive perception about health services (n=420)

Factors associated with positive perception	Observed chi-	P-value

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	square value	
Availability of suitably skilled health professionals	5.9097	0.015
Availability of essential medicines and drugs at health facilities	4.1949	0.041
Length of waiting time for services	4.0628	0.044

Table 5 shows predictors identified from factor analysis. The key finding from factor analysis is that the perception of residents is significantly influenced by the following 3 factors. These factors were the availability of suitably skilled health professionals, the availability of essential medicines and drugs at health facilities, and the length of waiting time for services.

Table 5: Predictors estimated from factor analysis (n=420)

Extracted factor	Eigen value	Percentage of explained variance in viability	Cumulative percentage of explained variance
Availability of suitably skilled health professionals	4.4309	38.117	38.117
Availability of essential medicines and drugs at health facilities	3.8416	26.272	64.389
Length of waiting time for services	2.7418	18.432	82.821

VI. DISCUSSION OF RESULTS

The study has identified and quantified key predictors of satisfactory health service delivery in the City of Tshwane. The study has shown that the perception of residents about the quality of basic health services was significantly influenced by the availability of suitably skilled health professionals, the availability of essential medicines and drugs at health facilities, and the length of waiting time for services. Results obtained from data analyses have shown that about 65% of the 420 respondents who took part in the study were satisfied with the quality of basic health services provided to them by employees of the City of Tshwane and the South African National Department of Health. About 35% of respondents were dissatisfied with the quality of basic health services that were provided to them.

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VII. RECOMMENDATIONS

Based on the findings of study, the following recommendations are made to the City of Tshwane and the South African National Department of Health so that the current degree of basic health service delivery could be enhanced:

- All basic health service delivery programmes of action drawn up by the South African National Department of Health (DOH) must be sufficiently aligned with the Integrated Development Plan (IDP) adopted by the City of Tshwane for the provision of municipal services to residents of Tshwane.
- Awareness programmes must be promoted in all parts of the City of Tshwane in order to improve health service coverage rates. This should be done in collaboration with the private sector, Non-Government Organisations (NGOs), WHO, UNICEF and relevant stakeholders. Ward committees and community leaders must be encouraged to take part in the promotion of awareness programmes.
- A comprehensive monitoring and evaluation plan should be developed and implemented as a means of assessing and evaluating health coverage rates and health service quality. Assistance should be provided to local councilors who are responsible for monitoring and evaluating the quality of health services provided to residents by equipping them with adequate support, mentoring and skills development training programmes.
- An incentive should be provided to top-performing employees in a form of workplace training in areas that are related to KPAs and KPIs.

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