Quality health care services given to patients in public health facilities are expected to guaranty their retention and loyalty. Quality health care service delivery characterized by assurance, empathy, reliability, responsiveness and tangibility has been a challenge in most countries of the world especially in Nigeria. There is a paucity of studies on the influence of health records management practices on quality health care service delivery; referral systems on quality health care service delivery in Nigeria. Hence, this study investigated the influence of health records management practices and referral systems on quality health care service delivery in public health facilities in Rivers State, Nigeria. This study used a survey design. Population of 715 health care providers and 199 patients was used. A sample size of 463 and 186 were determined using Taro Yamane’s formula. Purposive sampling technique was adopted to select eight health public facilities, while convenience sampling technique was used to select the respondents. A self-structured questionnaire was used to collect data. Cronbach’s alpha coefficient for the construct ranged from 0.076 to 0.84. 90% and 100% response rate was achieved. Data were analysed using descriptive and inferential (simple and multiple regression) statistics. The result revealed that health records management practices and referral systems have combined significant influence on quality health care service delivery in public health facilities in Rivers State, Nigeria ($\text{Adj. } R^2 = 0.028, F(2, 183) = 3.661, p < 0.05$). The findings indicated that records documentation ($\beta = -0.254, t(418) = -2.636, p < 0.05$) and two-way referral system ($\beta = -0.195, t(418) = -1.961, p > 0.05$) had negative insignificant influence on quality health care service delivery in public health facilities in Rivers State, Nigeria. Results further indicated that patients’ had high perceptions of quality health care service delivery in public health facilities in Rivers State, Nigeria ($x = 3.07$). The findings revealed assurance ($x = 3.27$) as the most perceived dimension and tangibility ($x = 2.80$) as the least perceived dimension of quality health care service delivery in public health facilities in Rivers State, Nigeria. The study concluded that health records management practices and referral systems are paramount importance in achieving quality health care service delivery in public health facilities in Rivers State, Nigeria. The study recommended that Rivers State Government should take proactive measures to implement proper health records management practices and functional referral systems to improve quality health care service delivery in the state.

Keywords: Health records management practices, Public health facility, Quality health care, service delivery, and referral system

INTRODUCTION

The government at different levels in every country keep investing financial, human, and other resources into the health system to ensure the delivery of high-quality health care services in public health facilities to their citizenry. In the healthcare sector, the delivery of high-quality health care services to patients has become a sine qua non. Kotter (2012) posited that service encompasses intangible actions that are in the form of activities performed by a party to another which does not lead to ownership of any physical object. In the health facility, the services delivered by healthcare providers involves diagnosing and treating, counselling and health education, public health interventions, surgical and non-surgical management, pharmacological and non-pharmacological management of patients with the prime purpose of either preventing or curing a disease (Agyapang, Afi & Kwateng, 2018). When these health care services delivered to patients are in a quality form, the patients always derived satisfactions and remain patron of the facility.

Quality health care service delivery that is effectively co-ordinated in a public health facility cannot be easily quantified through a single dimension. Aikins, Ahmed and Azimah (2014); Balasubramanian (2016); Legido-Quigley, McKee, Nolte and Ginios (2008) asserted that the term quality health care service delivery is still a theme to argue and has no specific or unanimous definition up till date. This is because the guidelines to quality of healthcare services are very much probabilistic due to estimations of the results. Just as the health facilities which are private and public differs in the complexity of scopes, structures, and responsibilities with the severity of individual patient’s health predicaments, so also peoples' viewpoints in respect to the level of quality health care service delivery varies both with time, situation and environment. This philosophy inspired scholars like Adil, Ghaswyneh and Albkour (2013); Glöbenko and Sianova (2012) to uphold that, in the health care industry, experiences and perceptions of patients regarding the outcomes of health care services delivered to them by health care providers play a pivotal role in the assessment and rating of quality health care service delivery in a particular health facility and as well in other categories of health facilities in any country.

However, some scholars including Balasubramanian (2016) and Natarajan (2006) have argued that patients’ perceptions and satisfaction outcomes of health care services received cannot be used alone to determine health care service delivery quality, rather other pertinent factors/dimensions such as knowledge, skills, and competency of health care providers; patient cooperation and adherence to medical advice are prime elements in determining quality health care service delivery. Besides, Mosadeghrad (2014) identified 182 characteristics of quality health care service delivery and categorized them into five which are environment, empathy, efficiency, effectiveness, and efficacy. But, this study’s viewpoint of quality health care service delivery is well-thought-out in five (5) dimensions which are (1) tangibility, (2) responsiveness, (3) reliability, (4) assurance, and (5) empathy as identified by Cronin and Taylor (1992).

Tangibility involves the availability and accessibility of physical facility with requisite infrastructure, serene and enabling work environment; adequate functioning equipment/tools and communication materials/channels; ample committed and dedicated health care providers and para-medical personnel of sound pedigree. Responsiveness is the willingness and readiness of health care providers to deliver equitable, efficacious, effective, and timely health care services to the patients and clients without prejudice. Reliability has to do with health care providers’ abilities and competencies to render the needed health care services to patients in an accurate, consistent, evidence-based, and dependable manner. Furthermore, assurance is focused on the skills and knowledge of health care providers and other employees working in the health facility having good public relation attributes in often instilling confidence and trust in the beneficiaries of the health care service deliveries. Finally, empathy concerns individual employees having compassion for patients, listening to their complaints and suggestions, and involving them in the decision-making respects to their health predicament management.

Statement of Problem

In Africa and particularly in Nigeria, literature has shown that the level of quality health care services delivered in public health facilities is regarded as being persistently low and remains a cause of concern to the citizenry due to high preventable death rate amongst poor income earners both in urban, suburbs, rural and riverine residents (Fatile & Adesanya, 2016). Consequently, the afflictive circumstances in which the lives of people in the rural and riverine communities in Nigeria and particularly in Rivers State as a result of the poor level of quality health care service delivery in public health facilities are enough to induce mental breakdown in many people, with a geometrical increase of preventable mortality and morbidity rate, and series of legal claims by patients/caregivers due to medical malpractices and negligence of health care providers (Etokakpan, 2019; Odogwu, 2019). Similarly, in Rivers State, Epelle (2020) reported that the Association of Health Records and Information Management Practitioners of Nigeria (AHRIMPN), Rivers State chapter raised alarms over the poor level of quality health care service delivery in both public and private health facilities.
Based on the foregoing, this study seeks to investigate the influence of health records management practices and referral systems on quality health care service delivery in public health facilities in Rivers State, Nigeria.

Health records management practices are an integral part of the health system which without proper attention given to its functionality in any health facility, quality health care service delivery will not be achieved (Medical Protection Society [MPS], 2014). For where there are no records of care rendered signifies that no care is given at all. This act of improper health records management practices often leads to perpetual poor patient care management, uneven financial management, improper health care administrative accountability, unresponsiveness which negatively affects the realization of organizational goals in both private and public health care facilities and beyond (Asinor & Leung, 2016). Also, a referral system is a crucial element that enhances proper and timely quality health care service delivery to patients regardless of their residence or location (rural, suburbs, or urban) and severity of the health challenges. When properly implemented in any country health system mandates every health care provider/facility who lacks technical and expertise skills, manpower, infrastructure, and other relevant resources in handling the patient case to seek or refer the patient and the condition to another health care provider/facility who has the prerequisite resources for proper management of the patient case (Omole, Mora, Yunusa, Audu, Jatau & Gobir, 2017).

**Objective of the Study**

The main objective of this study is to investigate the influence of health records management practices and referral systems on quality health care service delivery in public health facilities in Rivers State, Nigeria. The specific objectives are to:

1. find out the patients’ perception of quality health care service delivery in public health facilities in Rivers State, Nigeria.
2. establish the combined influence of health records management practices and referral systems on quality health care service delivery in public health facilities in Rivers State, Nigeria.

**Research Question**

What are patients’ perceptions of quality health care service delivery in public health facilities in Rivers State, Nigeria?

**Research Hypothesis**

Ho: Health records management practices and referral systems do not significantly have a combined influence on quality health care service delivery in public health facilities in Rivers State, Nigeria.

**METHODOLOGY**

**Research Design:** Survey research design method was adopted for the study. The population of this study consisted of seven hundred and fifteen (715) health care providers and one hundred and ninety-nine (199) patients from eight (8) public health care facilities in Rivers State, Nigeria. Taro Yamane formula was used to select a sample size of four hundred and sixty-three (463) health care providers and a sample size of one hundred and eighty-six (186) patients from the population of 715 health care providers and 199 patients respectively for the study. Taro Yamane’s Formula (1967) where \( n = \frac{N}{1 + Ne^2} \) at 95% confidence level. Where \( n \) = sample size sought, \( e \) = level of significance at 0.05, \( e^2 = (0.05)^2 = 0.0025, N = \) population size. The purposive sampling technique was used to select 8 public health facilities in Rivers State, Nigeria for the study. A self-structured and scrutinized questionnaire captioned Health Records Management Practices, Referral Systems and Quality Health Care Service Delivery was used for the study. The data collected from the survey were analysed using descriptive and inferential statistical tools. The research question was analysed using simple linear regression, and hypothesis was tested using inferential statistical tools like multiple regressions at 0.05 significant levels. These were calculated by using International Business Machines Statistical Package for Social Sciences (IBMSPSS) version 23.0.

**Presentation and Analysis of Research Questions**

This section is focused on analysis of the research questions based on the participants’ responses.

**Research Question One:** What are patients’ perceptions of quality health care service delivery in public health facilities in Rivers State, Nigeria?

The below table shows analysis of patients’ responses of their perceived quality health care services they often received from the public health facilities in Rivers State, Nigeria which are presented in frequency, percentage, mean and standard deviation formats according to very high perception (4), high perception (3), low perception (2) and very low perception (1) rating scale.
Table 1. Patients’ Perception of Quality Healthcare Service Delivery in public health facilities in Rivers State, Nigeria

<table>
<thead>
<tr>
<th>Variables</th>
<th>VHP Freq. (%)</th>
<th>HP Freq. (%)</th>
<th>LP Freq. (%)</th>
<th>VLP Freq. (%)</th>
<th>Mean (x̄)</th>
<th>Standard Deviation (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assurance (Mean = 3.27, SD = 0.73)</strong></td>
<td></td>
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</tr>
<tr>
<td>Patients always receive reliable information for their health care</td>
<td>95 (51.1)</td>
<td>71 (38.2)</td>
<td>12 (6.5)</td>
<td>8 (4.3)</td>
<td>3.36</td>
<td>0.79</td>
</tr>
<tr>
<td>management from the right sources in this facility</td>
<td></td>
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<tr>
<td>Confidentiality of patient information is always maintained in this</td>
<td>68 (36.6)</td>
<td>106 (57)</td>
<td>9 (4.8)</td>
<td>3 (1.6)</td>
<td>3.28</td>
<td>0.63</td>
</tr>
<tr>
<td>facility</td>
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<tr>
<td>Patients’ case-notes (records) are secured in this facility</td>
<td>60 (32.3)</td>
<td>105 (56.5)</td>
<td>11 (5.9)</td>
<td>10 (5.4)</td>
<td>3.16</td>
<td>0.76</td>
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<tr>
<td><strong>Reliability (Mean = 3.17, SD = 0.78)</strong></td>
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<tr>
<td>Patients’ referrals management are always carried out with patients</td>
<td>102 (54.8)</td>
<td>62 (33.3)</td>
<td>12 (6.5)</td>
<td>10 (5.4)</td>
<td>3.38</td>
<td>0.83</td>
</tr>
<tr>
<td>consents in this facility</td>
<td></td>
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<tr>
<td>Patients’ health records are easily retrieved always for the primary</td>
<td>62 (33.3)</td>
<td>87 (46.8)</td>
<td>33 (17.7)</td>
<td>4 (2.2)</td>
<td>3.11</td>
<td>0.77</td>
</tr>
<tr>
<td>use of patient care in this facility</td>
<td></td>
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<tr>
<td>The health care providers in this facility are always prompt in</td>
<td>45 (24.2)</td>
<td>107 (57.5)</td>
<td>26 (14)</td>
<td>8 (4.3)</td>
<td>3.02</td>
<td>0.75</td>
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<tr>
<td>rectifying any slightest error that may occur</td>
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<tr>
<td><strong>Empathy (Mean = 3.07, SD = 0.81)</strong></td>
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</tr>
<tr>
<td>In this facility, health care providers always show concern about patient</td>
<td>72 (38.7)</td>
<td>89 (47.8)</td>
<td>18 (9.7)</td>
<td>7 (3.8)</td>
<td>3.22</td>
<td>0.77</td>
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<tr>
<td>health challenges in ensuring their improvement</td>
<td></td>
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<tr>
<td>Health care providers often give attention to patients in this facility</td>
<td>58 (31.2)</td>
<td>104 (55.9)</td>
<td>15 (8.1)</td>
<td>9 (4.8)</td>
<td>3.13</td>
<td>0.76</td>
</tr>
<tr>
<td>The health care professionals in this facility always understand patient</td>
<td>48 (25.8)</td>
<td>78 (41.9)</td>
<td>45 (24.2)</td>
<td>15 (8.1)</td>
<td>2.85</td>
<td>0.90</td>
</tr>
<tr>
<td>anxiety</td>
<td></td>
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<td><strong>Responsiveness (Mean = 3.05, SD = 0.79)</strong></td>
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<tr>
<td>The health care professionals in this facility often give patients the</td>
<td>89 (47.8)</td>
<td>81 (43.5)</td>
<td>8 (4.3)</td>
<td>8 (4.3)</td>
<td>3.35</td>
<td>0.76</td>
</tr>
<tr>
<td>relevant information they need for their appointment booking.</td>
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<tr>
<td>In this facility, patients case-notes (folders) are retrieved by health</td>
<td>51 (27.4)</td>
<td>85 (45.7)</td>
<td>42 (22.6)</td>
<td>8 (4.3)</td>
<td>2.96</td>
<td>0.82</td>
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<tr>
<td>professionals without delay</td>
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<tr>
<td>The health care providers in this facility always render the required</td>
<td>40 (21.5)</td>
<td>82 (44.1)</td>
<td>60 (32.3)</td>
<td>4 (2.2)</td>
<td>2.85</td>
<td>0.78</td>
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<tr>
<td>health care services needed by patients within the time frame.</td>
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<tr>
<td><strong>Tangibility (Mean = 2.80, SD = 0.99)</strong></td>
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<tr>
<td>Physical infrastructures are always available for the delivery of quality</td>
<td>69 (37.1)</td>
<td>73 (39.2)</td>
<td>30 (16.1)</td>
<td>14 (7.5)</td>
<td>3.06</td>
<td>0.91</td>
</tr>
<tr>
<td>health care services in this facility</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>In this facility, adequate health care providers are always available to</td>
<td>47 (25.3)</td>
<td>68 (36.6)</td>
<td>44 (23.7)</td>
<td>27 (14.5)</td>
<td>2.73</td>
<td>1.00</td>
</tr>
<tr>
<td>give the needed patients’ care needs at all times.</td>
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<tr>
<td>There are adequate communication tools that always facilitate mutual</td>
<td>48 (25.8)</td>
<td>54 (29)</td>
<td>51 (27.4)</td>
<td>33 (17.7)</td>
<td>2.63</td>
<td>1.05</td>
</tr>
<tr>
<td>interaction between health care providers and patients in this</td>
<td></td>
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<tr>
<td>facility</td>
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<tr>
<td><strong>Average Overall Mean</strong></td>
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<td></td>
<td></td>
<td>3.07</td>
<td>0.82</td>
</tr>
</tbody>
</table>

Source: Field Survey 2021

KEY: VHP = Very High Perception, HP = High Perception, LP = Low Perception, VLP = Very Low Perception

*Decision Rule if mean is 1 to 1.74 = Very Low Perception; 1.75 to 2.49 =Low Perception; 2.50 to 3.24 =High Perception; 3.25 to 4= Very High Perception.
Table 1 indicates patients’ had high perceptions of quality health care service delivery in public health facilities in Rivers State, Nigeria (\(\bar{x}=3.07\)). The results showed that patients agreed had very high perception of quality health care service delivery in public health facilities in Rivers State in terms of: assurance (\(\bar{x}=3.27\)). In addition, the patients established that they had high perception of quality health care service delivery in public health facilities in Rivers State in terms of: reliability (\(\bar{x}=3.17\)), empathy (\(\bar{x}=3.07\)), responsiveness (\(\bar{x}=3.05\)) and tangibility (\(\bar{x}=2.80\)). This analysis implies that patients very highly perceived assurance as an indicator of quality health care service delivery in public health facilities in Rivers State more than reliability, empathy, responsiveness and tangibility.

Patients perceived the assurance subscale (\(\bar{x}=3.27\)) very high as an indicator of quality health care service delivery in public health facilities in Rivers State because: patients always received reliable information for their health care management from the right sources in the facilities (\(\bar{x}=3.36\)), confidentiality of patient information was always maintained in the facilities (\(\bar{x}=3.28\)). Patients perceived reliability (\(\bar{x}=3.17\)) high as an indicator of quality health care service delivery in public health facilities in Rivers State because patients’ referrals management are always carried out with patients’ consents in the facilities (\(\bar{x}=3.38\)); while they affirmed that patients’ health records are easily retrieved always for the primary use of patient care in the facilities (\(\bar{x}=3.11\)). Patients agreed that they perceived empathy (\(\bar{x}=3.07\)) high as an indicator of quality health care service delivery in public health facilities in Rivers State because health care professionals always showed concern about patient health challenges in ensuring their improvement (\(\bar{x}=3.22\)) and that health care providers often gave attention to patients in the facilities (\(\bar{x}=3.13\)). Patients also agreed that they perceived responsiveness (\(\bar{x}=3.05\)) high as an indicator of quality health care service delivery in public health facilities in Rivers State because health care professionals often gave patients the relevant information they needed for their appointment booking (\(\bar{x}=3.35\)). They also agreed that patients case-notes (folders) are retrieved by health professionals without delay (\(\bar{x}=2.96\)). Patients further established that they perceived tangibility (\(\bar{x}=2.80\)) high as an indicator of quality health care service delivery in public health facilities in Rivers State because physical infrastructures are always available for the delivery of quality health care services in this facility (\(\bar{x}=3.06\)) and that adequate health care providers are always available to give the needed patients’ care at all times (\(\bar{x}=2.73\)).

\(H_0\): Health records management practices and referral systems do not significantly have a combined influence on quality health care service delivery in public health facilities in Rivers State, Nigeria.

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta ((\beta))</th>
<th>T</th>
<th>P</th>
<th>Adj.R(^2)</th>
<th>F</th>
<th>Df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>54.250</td>
<td>3.711</td>
<td></td>
<td>14.617</td>
<td>0.000</td>
<td>0.028</td>
<td>3.661</td>
<td>2</td>
<td>0.028</td>
</tr>
<tr>
<td>Health Records Management Practices</td>
<td>-0.202</td>
<td>0.085</td>
<td>-0.223</td>
<td>-2.389</td>
<td>0.018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Referral Systems</td>
<td>0.068</td>
<td>0.132</td>
<td>0.048</td>
<td>0.515</td>
<td>0.607</td>
<td></td>
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</tr>
</tbody>
</table>

**Dependent Variable: Quality Healthcare Service Delivery**

**Source:** Field Survey 2021, **Note:** \(\beta= Standardized Coefficient, significant at 0.05\)

Table 2 shows that the linear combination of health records management practices and referral systems significantly influenced quality healthcare service delivery in public health facilities in Rivers State, Nigeria (\(\text{Adj.}R^2=0.028, F(2, 183) = 3.661p<0.05\)). The model shows that health records management practices and referral systems could explain 2.8% variation (\(\text{Adj.}R^2=0.028\)) in quality healthcare service delivery in public health facilities in Rivers State, Nigeria. Consequently, the null hypothesis which states that health records management practices and referral systems do not significantly have a combined influence on quality health care service delivery in public health facilities in Rivers State, Nigeria is rejected.

**CONCLUSION**

The study established that health records management practices and referral systems contribute to quality health care service delivery in public health facilities in Rivers State, Nigeria. The study concluded that quality health care service delivery cannot be achieved without recourse to standard health records management practices and functional referral systems being implemented in any health facility and health care settings. It has been discovered in the study that when health records management are ill-practiced, it means that no quality health care services has been rendered to patients. The study further concluded that assurance,
records use and records creation, formal referral system are the major indicators that shows somewhat of quality health care services delivered to patients in the various facilities of the study. These indicators showed the strength of agreement of their relationship in enhancing patients’ perceptions of quality health care service delivery so received in the facilities.

Irrefutably, health records management practices and referral systems are imperative for quality health care delivery accomplishment. However, none of it has gotten the appropriate attention from government and health partner agencies to enable it immensely and jointly drive high-quality health care service delivery improvement and sustenance across public health facilities in Rivers State and Nigeria at large.

RECOMMENDATION

The findings of this study necessitate certain recommendations that are considered germane for quality health care service delivery improvement and sustainability in the different tiers of health systems. Therefore, this study recommends the followings:

1. Rivers State Government, heads of facilities and health partners’ agencies should utilize innovative and strategies toward optimal improvements of quality health care service delivery in the dimensions of reliability, empathy, responsiveness, and most especially tangibility as well as ensuring sustenance of assurance dimension.

2. Rivers State Government and her health partner agencies should always inculcate proactive improvement measures such as standard policy, engagement of health records management professionals, budgeting and enabling environment for records disposal, records retention, records maintenance practices in health records management across the gamut of health facilities and health systems.

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