Corruption and the Distribution of Pharmaceuticals in Public Health Facilities in Bayelsa State of Nigeria

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Abstract

This study examined the impact of corruption on the distribution of pharmaceuticals in public health facilities in Bayelsa State of Nigeria. The study adopted stratified sampling technique to capture all the eight (8) Local Government Areas in Bayelsa State. Data were obtained using structured questionnaire. The data were analyzed using percentages and chi-square cross tabulation technique. The results showed that 12% respondents (non-practitioners) paid for drugs that were not given to them. Also, 62% respondents (practitioners) agreed paying for drugs that were not supplied, which is a signal of corrupt practices that may be going on in the distribution of pharmaceuticals. However, the chi-square critical value 2.2093 which was statistically not significant at 5% level indicates that there is no significant difference between the expected and actual responses. This implies that corrupt practices may be going on in the distribution of pharmaceuticals in Bayelsa State but it has not reached alarming heights. Thus, the study could not reject the hypothesis that corruption has no significant impact on pharmaceuticals distribution in Bayelsa State of Nigeria. The study concluded that corruption has no significant impact on the distribution of pharmaceuticals in Bayelsa State of Nigeria. It was recommended that the fight against corruption should be sustained in the health sector and proactive measures be taken to reduce to the minimum the incentives to engage in corrupt practices.

Keywords: Bayelsa, Corruption, Healthcare, Pharmaceuticals, Practitioners, Non-practitioners

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Background to the Study

The impact of corruption on the fortunes of any society wherever it is found can hardly be overemphasized. In recognition of its debilitating consequences, the Nigerian government has over the years put in place measures to curb corruption in the country. Specific measures include but not limited to the establishment of the Independent and Corrupt Practices Commission (ICPC) and the Economic and Financial Crimes Commission (EFCC) which are the two institutions in the country with the constitutional mandate to prosecute crimes relating to corruption (see the ICPC Act, 2000 and the EFCC Act, 2004).

In June, 2000 an Act establishing the Independent Corrupt Practices and other Related Offences Commission (ICPC) was enacted. The act was established to prohibit and prescribe punishment for corrupt practices and other related offences. The ICPC was vested with the responsibilities to investigate and prosecute offenders (http://icpc.gov.ng accessed 10/12/2018). The Act did not provide for financial crimes which lead to the establishment of the EFCC in 2004.

The EFCC was established by an Act in 2004 with the mandate to combat financial and economic crimes. The Commission was empowered to prevent, investigate, prosecute and penalize economic and financial crimes. It also had the responsibility of enforcing the provisions of other laws and regulations relating to economic and financial crimes, including: (i) the EFCC establishment Act, 2004; (ii) the Money Laundering Act, 1995; (iii) the Money laundering (prohibition) Act, 2004; (iv) the Advance Fee Fraud and Other Fraud related Offences Act, 1995; (v) the Failed Banks (Recovery of Debts) and Financial Malpractices in Banks Act, 1994; (vi) the Banks and other Financial Institutions Act, 1991 and Miscellaneous Offences Act (http://efccnigeria.org accessed 10/12/2018). However, since its establishment the EFCC has been reduced to a political watchdog to governments in power and has thus been seen more as not being objective in its fight against corruption. The EFCC has therefore not been able to achieve much.

Amidst the efforts of government, the level of corruption in Nigeria seem not abating but increasing by the day, this is evident in its 2018 ranking of 146 in the corruption perception index out of 170 countries. Within the same year the country has also overtaken India in the poverty ranking having the highest number of poor people in the world and health indicators are heading south. It is therefore not clear if corruption is culpable. Therefore, there has been a vast literature on the debate of the impact of corruption on any society.

Some scholars have argued that corruption hurts economic development because it redirects resources in unproductive direction and instills distortions in the economy. Four channels through which corruption may have an adverse effect on economic growth has been identified: higher public investments, lower government revenues, lower expenditures on business operations and maintenance, and lower quality of public infrastructures. Corruption brings a nation no good. The resources meant for water
supply, roads, education, health and other basic and social services that are captured and stolen by a handful Nigerians through corrupt acts stultify economic and social development.

In recent times, public analysts have centered their debates on the rising rate of corruption resulting in inappropriate public finance planning and implementation mostly in most developing economies including Nigeria which has drastically reduced the level of economic growth and development in other sectors. It has become a disease that has eaten deep into the cultural, political and economic growth of most countries as well destroying the smooth running of various organs and sectors of the economy. This could pose a challenge towards bringing about a qualitative health system and services in Nigeria. Though, there is a copious literature on the relationship between corruption and the Nigerian economy and the health sector, particular reference to Bayelsa State is lacking. It is in a bid to fill this gap that this study examined the impact of corruption the distribution of pharmaceuticals in public health facilities in Bayelsa State. taking into cognizance that the administration and management of drugs constitute the hub of any healthcare delivery.

**Literature Review**

**Theoretical Framework**

**Karl Marx Theory**

One of the classical sociological theorists of the 19th and 20th century was Karl Marx, who explained through his theory that human cultural values are important for a society. According to him, power and money shapes the social structure through developing the struggle among the classes to attain the best. Karl Marx believes not only brings a negative aspect of society but the positive side also emerges only if the class's difference of upper and lower is put on an end and if there are equality and inclusiveness in the society. He made clear that materialistic view made people earn for food, shelter, home and clothing hence, works for their living. This struggle shapes up the social structure of the society by creating the labours and owners. These two divisions of people create the differences as the owners gain profit but pay less to labour than the worth of the work, which leads to exploitation of the society. This exploitation further brings political domination creating classes in power who are economically strong and so gain the power of controlling the country.

**Public Choice Theory**

Public Choice Theory looks at the level of the individual in relation to corruption. The causal chain is that of an individual making a (bounded) rational decision that leads to a predetermined outcome. Central to the public choice literature is the individual corrupt official who tries to maximize his or her utility. The individual (usually male) is portrayed as a rationally calculative person who decides to become corrupt when its expected advantages outweigh its expected disadvantages (a combination of possible penalty and the chance of being caught). This group of causal theories is made popular by Rose-Ackerman 1978 as cited in Gjalt (2007), who claims that public officials are corrupt for a
simple reason: they perceive that the potential benefits of corruption exceed the potential costs.

**Bad Apple Theories**
This like the public choice theory primarily looks at the level of the individual corrupt agent for the causes of corruption. These studies seek the cause of corruption in the existence of people with faulty (moral) character, the so-called “bad apples”. There is a causal chain from bad character to corrupt acts; the root cause of corruption is found in defective human character and predisposition toward criminal activity. “Wrong” values are therefore the cause of corruption.

**Organizational Culture Theories**
Some literature has exhibited little interest in the background or motives behind corrupt officials, but much interest in the culture and structure of the organization within which the agent is working. The underlying assumption seems to be that a causal path from a certain culture – a certain group culture – leads to a certain mental state. And that mental state leads to corrupt behaviour. Failure in the “proper machinery” of government, not faulty character, leads public officials to act corruptly.

**The Ethos of Public Administration Theories**
These theories studies political and economic structures. Officials' performance has a causal path from societal pressure through the level of organizations. This, combined with a lack of attention to integrity issues, leads to a focus of the official on “effectiveness”, making him or her corrupt.

However, we center our theoretical framework on the general theory of development. According to this theory, economic development is dependent on a number of factors which are; material, human and institutional. The choice of this theory is due to the fact that, the theory is comprehensive and holistic in nature.

According to Okowa (1999), the functional presentation is as follows;

\[
\frac{\Delta \gamma}{\gamma} = f(\text{WEI, ECI, KNE, CAP, LAB, NSR, GOV})
\]

Where;
- \(\Delta \gamma\) = Change in National Income
- \(\gamma\) = National Income
- WEI = The Will to Economise (Savings)
- ECI = Economic Institutions
- KNE = Knowledge
- CAP = Capital
- LAB = Labour
- NSR = Natural Resources
- GOV = Government
Hence, WEI, ECI, KNE, CAP, LAB, NSR and GOV are independent variables that are positively related to economic development

**Empirical Literature**

The harmful and detrimental effect of corruption is unimaginable. The impact of corruption to all facets of societies is on the front burner of most developing nations, development scholars, commentators, government at all levels and analysts.

Azuh (2012) conducted a research to find out whether health care challenges facing the country are significantly related to corrupt practices. The study was designed to examine the opinion of respondents at grassroots level on corruption and impact on health services. The study was carried out in Ado-Odo /Ota Local Government Area (LGA) in Ogun State, Nigeria. Respondents were drawn from health personnel in each PHC/health clinic and women attending antenatal clinics within the jurisdiction of the selected 11 wards. These respondents were interviewed using the questionnaire instrument.

The SPSS software was used to analyse data. The findings show that cost of service, staff development, non-availability of drugs and consumables and equipment inadequacy among others were positively and significantly related to corruption and diminish the delivery of healthcare services at the grassroots. The study made recommendations for better healthcare delivery services and minimizing corruption within the system.

Nagari, Umar, and Abdul (2013) used the Ordinary Least Square (OLS) regression technique to investigate the impact of corruption on economic development in Nigeria. Secondary data were sourced from World Bank reports on Nigeria and corruption reports from transparency international on Nigeria. Hypothesis tested with respect to Corruption Perception Index (CPI) was not accepted implying that the tests were statistically significant, meaning that Corruption Perception Index (CPI), a proxy for corruption in this research negatively affects economic development. On the other hand, the hypothesis tested on the Corruption Rank (CR) of Nigeria among countries Cadre is also statistically significant. The findings show that corruption has a significant negative effect on economic growth and development.

Nwankwo, (2014) investigated the impact of corruption on the growth of Nigerian economy using granger causality and regression techniques. The study used Gross Domestic Product (DGP) as a proxy of corruption in it's analysis. The study revealed that the level of corruption in Nigeria over the years has significant negative impact on economic growth in Nigeria. The implication of this study is that economy cannot grow fast without zero tolerance in corruption.

In a study on corruption in the healthcare sector, published in October 2013, by the European Commission; states that;
The objectives of the study are; to enable a better understanding of the extent, nature and impact of corruption practices in the healthcare sector across the EU; and to assess the capacity of the MSs to prevent and control corruption within the healthcare system and the effectiveness of these measures in practice.

Similarly, Roohi and Quazi (2012) estimated the petty corruption in the provision of healthcare services in the slum areas of Karachi. The empirical results provide significant evidence that the residences of slum areas of Karachi in all the five districts are forced to pay bribes in order to get the basic healthcare facilities.

The result shows that people with better income and education understands the importance of good health and are thus ready to pay bribes to get the health services. Moreover, in the public health care units all staff including doctors, nurses and others are actively involved in corruption activities.

In Nigeria, a study by Adegboyega and Abdulkareem (2012) examines the challenge of corruption in Nigeria public health delivery system. They state that, like other sectors, the health sector in Nigeria is prone to corrupt practices. This is attributed to the fact that health services are in great demand coupled with low public access to health information and expenditure. They further argued that, corruption in the health sector has made various health institutions to be ineffective while scarce resources invested in the sector are wasted. The study, therefore, examines the extent to which corruption in the Nigerian health sector has undermined consumers' access and effectiveness of health care services.

In Nigeria, corruption has hampered social, economic and political development. As a result, productivity is low, administrative efficiency is reduced and the legitimacy of political and economic order is undermined. Finances meant for aid and investment get into the accounts of corrupt officials and leaders, especially banks, in stable and developing countries. The reverse flow of capital leads into political and economic instability, poor infrastructure, education, health and other services and a general tendency to create or perpetuate low standards of living (Buscaglia and Ratliff, 2001)

**Methodology**

**The Study Area**

This study was carried out in Bayelsa State. It is one of the 36 states of the Federal Republic of Nigeria. Bayelsa State was created in 1996 from the then Rivers State. The State has boundaries with Rivers State to the West and North-West and Delta State to the East and South-East. The Gulf of Guinea lies its South. Bayelsa State covers an area of 9,415.8 square kilometers. The State lies on latitude 4° 45’ north and longitude 6° 05’ east. According to the National Population Commission's 2006 report, the population of the state is put at 1,704,515, which are made up of 874,083 males and 830,432 females clustered in eight local government areas (Annual Abstract of Statistics, 2012).
Data Collection
The data utilized in this study were related to public healthcare institutions in Bayelsa State and were drawn from primary sources. The questionnaire was administered to four hundred (400) respondents in all the eight Local Government Areas (LGAs) of the state, fifty (50) in each LGA.

Data Analysis
The study employed simple percentages, charts and tables in our analyses. We also used the chi-square ($X^2$) test statistics as statistical tool to analyze the data that were generated. The Chi-Square symbolized by ($X^2$) is a non-parametric test that can be used whenever we wish to examine whether or not the frequencies which have been empirically obtained ($f_o$) differ significantly from those which would be expected ($f_e$) under a certain set of theoretical assumptions or a priori expectations.

The formula for the chi-square ($X^2$) test statistic is given below:

$$X^2 = \sum \frac{f_o - f_e}{f_e}$$

With $(r - 1) (c - 1)$ degree of freedom

Where:
- $f_o$ = is the observed frequency
- $f_e$ = is the expected frequency
- $r$ = is the number of rows in the contingency table
- $c$ = is the number of columns in the contingency table

Results and Discussion
Distribution of Respondents
The study covered the eight (8) Local Government Areas of Bayelsa State, where four hundred respondents were administered with the questionnaire but 399 were retrieved. The demographic information of the respondents is presented both in pie charts and tables. Bayelsa State is made up of eight (8) Local Government Area(LGA's), made up of Brass, Ekeremor, Kolokuma/Opokuma, Nembe, Ogbia, Sagbama, Southern-Ijaw and Yenagoa local government areas. The study covers the entire eight LGAs. A total number of four hundred (400) questionnaire were distributed across the eight(8) LGAs as fifty (50) copies for each of the LGAs.

However, in Ekeremor LGA, forty-nine (49) out the the Fifty (50) were retrieved (Table 1).
Table 1: Distribution of Respondents

<table>
<thead>
<tr>
<th>Local Government Area</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brass</td>
<td>50</td>
<td>12.50</td>
</tr>
<tr>
<td>Ekeremor</td>
<td>50</td>
<td>12.50</td>
</tr>
<tr>
<td>Kolokuma/Opokuma</td>
<td>50</td>
<td>12.50</td>
</tr>
<tr>
<td>Nembe</td>
<td>50</td>
<td>12.50</td>
</tr>
<tr>
<td>Ogbia</td>
<td>50</td>
<td>12.50</td>
</tr>
<tr>
<td>Sagbama</td>
<td>50</td>
<td>12.50</td>
</tr>
<tr>
<td>Southern Ijaw</td>
<td>50</td>
<td>12.50</td>
</tr>
<tr>
<td>Yenagoa</td>
<td>50</td>
<td>12.50</td>
</tr>
<tr>
<td>Medical Practitioners</td>
<td>49</td>
<td>12.25</td>
</tr>
<tr>
<td>Non-practioners</td>
<td>351</td>
<td>87.75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>243</td>
<td>60.75</td>
</tr>
<tr>
<td>Female</td>
<td>157</td>
<td>39.25</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2018

The study focused on two categories of respondents which were classified as Health Practitioners and Non-Practitioners. A total of 400 questionnaires were distributed, 87.75 per cent were Non-Practitioners and 12.25 per cent were Medical Practitioners. Gender composition indicates that 39.25 per cent were female, while 60.75 per cent were male (Table 1).

Table 2: Corruption Awareness of Medical Practitioners

<table>
<thead>
<tr>
<th>Local Government Area</th>
<th>Respondents with Awareness of corruption</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brass</td>
<td>11</td>
<td>22.45</td>
</tr>
<tr>
<td>Ekeremor</td>
<td>8</td>
<td>16.33</td>
</tr>
<tr>
<td>Kolokuma/Opokuma</td>
<td>3</td>
<td>6.12</td>
</tr>
<tr>
<td>Nembe</td>
<td>6</td>
<td>12.24</td>
</tr>
<tr>
<td>Ogbia</td>
<td>6</td>
<td>12.24</td>
</tr>
<tr>
<td>Sagbama</td>
<td>9</td>
<td>18.37</td>
</tr>
<tr>
<td>Southern Ijaw</td>
<td>4</td>
<td>8.16</td>
</tr>
<tr>
<td>Yenagoa</td>
<td>3</td>
<td>6.12</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2018

Impact of Corruption on Pharmaceuticals

Research Question Five: do you pay for drugs that are not given? How do you rate services received from the registered Hospital/Clinic?
The results on the impact of corruption on pharmaceuticals based on non-practitioners are presented in Table 3, which cross tabulates the perception of non-practitioners for drugs but not supplied paid and quality of services received from the health facilities.

Non-Practitioners

Table 3: Corruption on pharmaceuticals based on Non-Practitioners' perception

<table>
<thead>
<tr>
<th>Pay for Drugs that are not Given</th>
<th>Services Received from the Registered Hospital/Clinic</th>
<th>Very Good</th>
<th>Good</th>
<th>Very Poor</th>
<th>Poor</th>
<th>Fair</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
<td>50 (47.3)</td>
<td>138 (139.4)</td>
<td>16(17.5)</td>
<td>37(37.7)</td>
<td>65(64.0)</td>
<td>306(88)</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>4 (6.7)</td>
<td>21 (19.6)</td>
<td>4(2.5)</td>
<td>6(5.3)</td>
<td>8(9.0)</td>
<td>43(12)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>54(15)</td>
<td>159(46)</td>
<td>20(6)</td>
<td>43(12)</td>
<td>73(21)</td>
<td>349(100)</td>
</tr>
</tbody>
</table>

Chi-square =2.6457 [0.619]

Note: (i) observed (expected) Values; (ii) Chi-square probability value in braces [ ]

Source: Authors' Computation from Field Survey data, 2018

The results indicate that 12% respondents paid for drugs that were not supplied compared to 88% who paid for drugs that were supplied. If corruption has no significant impact on pharmaceuticals, it was expected that at least 7 (20) respondents would have received 'very good' (good) services from health facilities, but it turns out that less than 7 received 'very good' services and more than 20 (21 respondents) received good services; 3 respondents said that services received is very poor, more persons (4 respondents) said that services received is very poor; 5 respondents said services received is poor, more persons (6 respondents) said that services received is poor; 9 respondents said that services received is fair, less persons (8 respondents) said that services received is fair. These indicate that there are differences between the expected and observed outcomes (in some cases the observed was less than expected but in some cases it was more than expected. It is therefore not clear if corruption has impacted on the distribution of pharmaceuticals. To unravel the impact of corruption on the distribution of pharmaceuticals the Chi-square test is relevant. The chi-square critical value 2.6457 was statistically not significant at 5% level indicating that there is no significant difference between the expected responses and the actual. Therefore, the study could not reject the hypothesis that corruption has no significant impact on the distribution of pharmaceuticals in public health facilities in Bayelsa State, based on the perception of non-practitioners.

Practitioners

The results on the impact of corruption on pharmaceuticals based on practitioners' perception is presented in Table 4, cross tabulates the perception of practitioners on charges made on drugs separately from service charge and payment for drugs that were not supplied.
**Table 4:** Corruption on pharmaceuticals based on Practitioners' perception

<table>
<thead>
<tr>
<th>Charged for Drugs separately from service charge</th>
<th>Pay for Drugs that are not Given</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No (expected outcome)</td>
<td>Yes (expected outcome)</td>
</tr>
<tr>
<td>No</td>
<td>121 (116.6)</td>
<td>12 (16.4)</td>
</tr>
<tr>
<td>Yes</td>
<td>184 (188.4)</td>
<td>31 (26.6)</td>
</tr>
<tr>
<td>Total</td>
<td>305 (88)</td>
<td>43 (12)</td>
</tr>
</tbody>
</table>

Chi-square = 2.2093 [0.137]

Note: (i) observed (expected) Values; (ii) Chi-square probability value in braces [ ]

**Source:** Authors' Computation from Field Survey data, 2018

The results indicate that 62% respondents paid for drugs that were not supplied and 38% paid and were supplied. Further, 12% respondents were charged for drugs separately from services and 88% were charged for both drugs and services together. If corruption has no significant impact on pharmaceuticals, it was expected that at most 188 respondents would have been charged for drugs separately from service charge, but less persons (184 respondents) were charged separately from service received. There were differences in the expected and observed outcomes though, the chi-square critical value 2.2093 was statistically not significant at 5% level indicating that there is no significant difference between the expected responses and the actual. Thus, the null that corruption has no significant impact on pharmaceuticals in Bayelsa State could not be rejected based on the perception of medical practitioners.

**Conclusion and Recommendations**

Although, there are differences in the expected and observed outcomes, that is, there are observed levels of corruption, based on the chi-square statistics this study concludes that corruption has no significant impact on the distribution of pharmaceuticals in public health facilities in Bayelsa State.

**Recommendations**

The paper, therefore, recommend that:

(i) Government should as a matter of priority declare state of emergency on the health sector.

(ii) Adequate provision of healthcare consumables to mitigate commercialization of drugs and other pharmaceuticals that should have been free.

(iii) The fight against corruption should also target the healthcare providers to ensure an effective healthcare service delivery.

(iv) An independent monitoring group should be constituted to monitor the activities of Medical Doctors, Nurses, Pharmacists, Laboratory attendants and other health workers for the purpose of reducing, if not eradicating, corruption in the Nigerian Health sector.
Effective public enlightenment campaign is necessary to educate the populace on the importance for whistle blowing in some unscrupulous activities that permeates the health sector of Nigeria.

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