ORIGINAL ARTICLE

Would Expected Hyper-Inflation Induced Generalized Healthcare Price Increases in Nigeria Reduce Facility Patronage? Prediction Using Experience of Onitsha Based Private Dental Clinic

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ABSTRACT

Background: Expected hyper-inflation following diminished proceeds from crude oil and drastic devaluation of the currency, will ultimately raise healthcare prices in Nigeria. Financial experts have predicted bleak economic future and private healthcare practitioners are worried about the prospect of empty consulting rooms.

Objective: To investigate the effect of hyper-inflation induced generalized healthcare price increases on facility patronage using past hyper-inflation experience of Onitsha based dental clinic.

Method: Data concerning treatment prices, registration fees and dental services rendered from 1996 to 2005 were collected from the clinic's diaries and record books using self-devised Data Collection Schedule Form. Nigeria was then reeling under resonating hyper-inflation associated with crude oil price tumble of late 1970's. Analysis was by frequency, grand mean and inferential statistics of Spearman Rank Order Correlation Coefficient.

Result: There was no significant relationship between hyper-inflation period healthcare patronage and unit treatment prices or with registration fees when increases were based on fair pricing.

Conclusion: Though superimposed recession depresses businesses, appropriate pricing involving generalized healthcare price increases *per se* would not significantly reduce previous pattern of healthcare facility patronage during the inflationary period in Nigeria. This prediction is on the understanding that a careful combination of caution, proper business practices, altruism, rapport and other patient friendly considerations guide healthcare private practice.

Keywords: *Unit treatment price, Appropriate pricing, Corner-cutting, Healthcare shopping*

INTRODUCTION

According to media reports, the serious price increases that have overtaken Nigerians started late 2015.[1] However, from relevant discussions, bills emanating from different health facilities did not seem to reflect serious increases for months. This conforms to the view expressed by Cotton that doctors lag behind their patients, manufacturers and other professionals in raising prices.[2]

Commentators have found the present turbulent economic climate reminiscent of the challenges that led to Structural Adjustment Program (SAP) that started in 1986, antecedent to the darkest economic decades wishfully

ever, in Nigerian history.[3] Such challenges include accumulation of national debt, crude oil price tumble, naira devaluation with resounding fall in the black market, hyper-inflation and rationing of scarce foreign exchange. The SAP intervention followed after about 6years' resistance to post-crude oil glut naira devaluation. From the official exchange rate of about ₦0.894 to the US dollar in 1985 (pre SAP), the naira fell to about ₦136.00 per dollar in 2005 - an inflationary trend that resonated through the period and beyond.[4] According to Ogunbekun, Ogunbekun and Orobaton, the SAP fore-runner of austerity measures galvanized the proliferation of full time healthcare private practice in Nigeria.[5]

The government, after the civil war, drastically expanded medical schools for the need of its hospitals but, could not employ the graduating doctors. The resulting proliferation of private practice generated competition not just among practitioners themselves but also with the not-for-profit government hospitals, drug sellers, homeopaths, faith healers and herbal medicine men.

The Nigerian medical practice environment has not changed much today. Medical bill settlement is still predominantly user fee. However, the hitherto free government secondary healthcare centres have lost their high degree of competitiveness. Other traditional competitors still hold forth along with the emergent food supplement marketers.

During the SAP related period, private practitioners used low prices as tools for competition. In Lagos, senior professionals, proprietors of private hospitals who organized as Guild of Medical Directors, felt that undercharging with associated chronic financial distress and inability to upgrade was inimical to ethical practice of medicine. This obtains since professionals, working unsupervised, are prone to episodic or situation specific morality lapses like corner-cutting and other forms of opportunism especially when under stress.[6,7] The Guild, thus, harmonized minimum charges for Lagos doctors in 1992 with an upward revision in 1995. The Nigeria Medical Association (NMA) Onitsha Zone, followed suit later that year, paving way for spontaneous generalized price increases. Today, there is fear concerning the increasing inflation among Nigerians. Private healthcare practitioners, too young for the hindsight on SAP, are worried about threatening empty consulting rooms as the inevitable great depreciation of the naira will eventually entrench generalized poverty.

Financial experts have predicted bleak economic atmosphere for Nigerians following inadequate proceeds from crude oil. Economic problems from propping artificial naira value will eventually lead to unavoidable serious currency devaluations. This may induce endemic hyper-inflation as before. Healthcare charges will be caught in a web of serious cost-push inflation. Will the, then, impoverished masses defect to the quacks, jeopardizing the livelihood of medical and related healthcare professionals?

The objective of this study was to ascertain the relationship between health service patronage and progressive price increases of unit healthcare procedures and registration fees, from 1996 to 2005 at Niger Dental Clinic, Onitsha, Anambra State.

The research questions include:

1. What were the yearly recall mean treatment prices of unit procedure at Niger Dental Clinic from 1996 to 2005?
2. What were the yearly registration fees then?
3. What were the recall patronages from 1996 to 2005?
4. What was the relationship between patronage and yearly recall unit treatment prices then?
5. What was the relationship between patronage and yearly recall registration fees then?

The study may encourage appropriate pricing of healthcare services with its healthy impact on business survival, veracity in doctor-patient relationship and improved quality of care. On the other hand it may deter healthy price increases resulting in financial distress and

problematic facility upgrade. The findings, if perceived as favourable, will engender peace of mind necessary for focused practice. Peace of mind is necessary for healthy perseverance in long term adversity that is unfolding and for highest level of functioning to nurse our sick society back to health through contributions of relevant expertise and reforms. Alternatively, empirical establishment of past adverse outcome may provoke timely reactions including embracing part time paid employment or backyard economic ventures to buffer the perceived threat.

Relevant literature is scanty due to the novelty of this study. However, according to Cotton, fees that ignore the going rates in private practice are self-defeating.[2] The going rate was described by the author as specific fee that a majority of self-employed doctors in a specific region and specific field of practice do not exceed. Since private healthcare usually involves financial compensation for services rendered, there is necessity for business structure to accommodate the transactions.[8] According to Microsoft Corporation, private healthcare practice being a service profession and a business concern, success depends on regular profitable bottom line.[9]

METHODOLOGY

This is a retrospective correlation survey.

Study Area

Niger Dental Clinic is a small, sole proprietor facility that operated four days per week at Onitsha, an important commercial city in South-East Nigeria. The abundance of high rise buildings testifies to the wealth of Onitsha business community. However, the poor are attracted by the survival opportunities that abound.

The anecdotal accounts of travelers receiving intra gluteal shots of purported, all purpose, terramycin injections right through their trousers, from Onitsha Motor Park drug peddlers are common. Health workers dispute such stories. However, the accounts about mothers lacing young children's locally prepared formulae of metronidazole (Flagyl[R]) so as to prevent gastro-intestinal problems are indisputable.

As at 2012, there were over one hundred registered private hospitals / clinics in Onitsha zonal area and about seven registered private dental clinics excluding those forming part of private hospital complexes.[10] However, in sickness, residents patronize drug sellers so as to avoid paying consultation and registration fees. The resulting complication that eventually requires proper professional attention does not deter habitual recourse to quackery. For Onitsha community, timely, proper healthcare consultation is largely considered a veritable hole in the pocket.

Population and Sample Size of the Study

The population for the study consisted of a total patronage for 13,015 dental businesses, services, or procedures from 1996 to 2005. "Patronage" is the business activity provided to a store, hotel or other establishments by customers, clients or paying guests.[11] In this case, occasional procedures (14%) were associated with wide price differential. However, 86% of procedures rendered were on narrow range of price spectrum. The yearly average prices of the latter were calculated as the prices of a unit dental procedure leaving the prices of the occasional few on price extremities to cancel out.

The procedures used were silver amalgam fillings, composite filings, acid etch restorations, simple extractions, operculectomies and gingivectomies, scaling of teeth, alveolectomies, plastic partial dentures (one to four teeth), repair of dentures and wiring of teeth. There was no sampling technique because all the procedures were used for the research. Increased patronage that might be attributable to demographic growth during the ten years period was assumed to have been cancelled by the new dental facility established during the period.

Instrument for Data Collection

Data concerning registration fees were collected from the clinic's registration record books. Services given including associated charges

were retrieved from the clinic's day to day dairies with occasional reference to patients' case notes. Data were recorded month by month using self-developed Data Collection Schedule Form (DCFS).

Data were analyzed using descriptive statistics of frequency, grand mean and inferential statistics of Spearman Rank Order Correlation Coefficient.

RESULTS

Table 1. Yearly (average) unit treatment prices, yearly registration fees and patronage from 1996 to 2005

	1996	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Yearly unit Treatment Prices ₦	725	775	850	925	1012	1100	1300	1450	1500	1700
Yearly Registration Fees ₦	50	100	100	100	100	100	100	100	200	200
Patronage	1356	1211	1139	1300	1103	1417	1571	1427	1324	1107

Table 2. Patronage versus yearly unit treatment prices from 1996 to 2005

	1996	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Patronage	1356	1211	1139	1300	1103	1417	1571	1427	1324	1107
Yearly unit Treatment Prices ₦	725	775	850	925	1012	1100	1300	1450	1550	1700

Spearman Rank Order Correlation Coefficient, þ, was calculated to investigate null hypothesis with regard to research question 4 (Table 2), *þ=0.128*. Since þ is between 0.00 and 0.19, there is insignificant relationship between patronage and unit treatment prices.

Table 3. Patronage versus yearly registration fees

	1996	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Patronage	1356	1211	1139	1300	1103	1417	1571	1427	1324	1107
Yearly Registration Fees ₦	50	100	100	100	100	100	100	100	200	200

Spearman Rank Order Correlation Coefficient, þ, was also calculated to investigate null hypothesis with regard to research question 5 (Table 3); *þ = --0.057*. The þ-*value* being between 0.00 and 0.19 implies insignificant correlation. The negative sign showed that registration fee increases reduced patronage though statistically insignificantly.

DISCUSSION

It must be noted that the accompanying economic recession, by aggravating problems of scarcity of cash, manufacturing decline,

unemployment and poverty, drastically hinders business activities. Its serious negative effect on healthcare patronage must not be ascribed to healthy price increases. That inflation induced generalized healthcare price increases would not appreciably reduce patronage is in consonance with the suspicion by Vegal in 1994, Akin, Guilkey and Denton in 1995 that consumers in need might not hesitate to pay more.[12,13] This is logical since the need for healthcare commodity is not just unpredictable, devoid of consumer sovereignty with very limited genuine alternative but is also of derived demand.[14]

Concerning the price increases in the research work, patronage might have been enhanced by the degree of caution employed so as to produce fair prices. The going rate advanced by Cotton, is a specific figure and is ostensibly rigid.[2] However, healthcare fair price is that considered just and equitable by both the provider and most enlightened receiver of care.

The researcher used patient specific fair prices: the going rate for the majority who settled fees immediately, above the going rate for the few who had to settle later and below the going rate for the minority who convincingly were on the lowest level of economic pyramid. This ensured inbuilt discount mechanism for the few recognizable poor and thus justice of affordability. The basic amounts fixed would be subjective, guided by each practitioner's perception of the comparative worth of his professional job, seniority or specialization and especially the degree of individual orientation towards profit or service.

The use of healthcare fair pricing entails financial sacrifices on the part of the practitioner. It was not only a period of general economic retrogression but it has been a society where the sick is still regarded as a patient and not yet, a client as in healthcare commercialization. It was, thus, not possible for price adjustments to meet up to the general inflation rates of the period. Even though consumer Price Indices, as high as 72.84 in 1995 dropped to 29.27 and 17.86 in the years 1996 to 2005, these were still on the high side.[15] Most practitioners felt inhibited effecting such high increases. The consequent real income shortfall over the years translated to continuous erosion on the practitioner's standard of living.

Besides fair fees, other factors could enhance attraction and retention of patients. Good location assures accessibility maximum exposure and visibility of the facility. Huge decorated signboards can attract attention but are regarded as advertisements condemned by the regulating authority for their tendency, among others, to manipulate consumers. Very lucrative however is location adjacent to a similar government facility though breeding financial conflicts of interest by encouraging patient solicitation and diversion through agents and fee splitting.

In the case of the facility under study, running a work schedule of 4days per week as opposed to 6days per week might have adversely affected patronage, since majority of third world dental patients present as emergencies. A patient presenting with acute advanced pulpalgia, described as one of the most excruciating painful conditions known to man may hysterically pre-judge his care giver as professionally nonchalant if not found at this hour of need.[16]

RECOMMENDATIONS

The researcher made recommendations for mutually benefiting healthcare patronage: Patient specific fair prices should be charged all the time so as to provide discount for the very poor, profit the practitioner and discourage opportunism thereby benefiting the patient.

Again, for promoting cost propelled healthcare shopping regardless of quality, telephone inquiry on prices should be discountenanced in favour of prior adequate clinical assessment. Thereafter, agreed user fees, if affordable, are best collected before treatment to avoid post-treatment renegotiation or default. However, charging of low prices when desired should be based on altruism and not out of fear of patients' desertion.

It is, also, important that business aspects of healthcare practice must be properly balanced with altruism. Outstanding high charges even owing to extraordinary skill, monopoly or in pursuit of the profit goal of healthcare business, detract from the humanitarian aspect of healthcare. However, uncontrolled financial sacrifice, duty-bound or motivated by charity, may result in chronic income disability. This could cause work or family related stress and beneficiary directed resentment, precursors of depressive illness.

Habitual good rapport and assurances help in retaining patients and binding to proper standards. However, exaggerated claims concerning outcome may lead to conflict due to high but unrealized expectations. Finally, effective health insurance scheme where care providers are settled as at when due will surely increase patronage by lessening financial burden on consumers.

CONCLUSION

The results of the study showed that in spite of inevitable recession induced hiccups, the expected healthcare price increases in Nigeria due to hyper-inflation will not on their own have serious detrimental effect on long term patronage if caution is employed, though the practitioners' standard of living may decline.

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