

Hawking of Medicinal Drugs: The Perspective of the Ghanaian Consumer

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Abstract

This study sought to lay bare, whether there was a high patronage for vended drugs and why, assess their quality and associated risks. An exploratory analysis was applied for the study. Structured interviews were completed by nine hundred and eighty three (983) respondents, selected using convenience sampling techniques from eighteen (18) bus terminals and along two (2) streets. Conclusively, the study revealed high patronage of vended drugs most especially herbal medicine. For most respondents (consumers), the quality of herbal medicine was rated higher compared to over the counter (OTC) and prescription drugs. The study further indicated a strong link between the factors evaluated and patronization of vended drugs. It is thereby recommended that the state must play an active role in resourcing the mandated institutions to eliminate the proliferation of the activities of the drug hawkers.

Keywords: Hawked Drugs, Herbal Medicine, Over the Counter Medicine, Prescription Medicine

1. Introduction

Street vending or hawking is a universal and mounting urban menace in West Africa (Tinker, 2003). It forms an integral and important part of the informal economic sector of West African Countries. Hawking is highly patronized because it provides affordable services to low income families, since it often supplies products by the item instead of in bulk (Davis, 2008). In Ghana, hawking can be found in all major cities and covers almost all products including pharmaceutical goods. Anyone can buy drugs from street hawkers in bus terminals and along the streets without a doctor's prescription or pharmacist's assistance, but by the untutored vendor's suggestions as to its dosage and side effects.

This phenomenon raises consumer health safety questions in the era where "production and distribution of counterfeit medications has become a significant global public health issue" (Law and Youmans, 2011:114). A study by World Health Organization cited by Law and Youmans (2011) indicates 771 reports of counterfeit medications between 1984 and 1999, of which 78% originated in developing countries. Furthermore, the Center for Medicines in Public Interest estimates that 2010 global counterfeit profits will be \$75 billion, a 92% increase from 2005. The majority of the studies conducted in developing countries in order to determine the prevalence of medicine counterfeiting show that about half of the drugs tested were sub-standard (Bate and Hess, 2010; Milissa McGinnis, 2010 ; Oforo-Kwakye et al., 2008).

Besides, studies into vended drugs in developing countries show that large proportions of the drugs are of low quality (Arya, 1995). This is partly because these drugs are constantly exposed to dust, the sun, and changes in the weather. Additionally, majority of instructions and information on these drugs are written in foreign languages, making it difficult for both vendors and consumers to read and understand the characters and the accompanying leaflets, if any, are likewise illegible to the consumers. The effects of these low quality drugs include treatment failure (Roy, 1994; Abdi et al., 1995; Arya, 1995; Kron, 1996) and serious damage to the patients' health or even death. (Milan, 1987; Pandya, 1988; Masland and Marshall, 1990; Silveman et al., 1990; Okuonghae et al., 1992; Ogoh Alubo, 1994).

The Pharmacy Act of Ghana (ACT 489) 1994 regulates the supply, distribution and sale of medicines that are duly registered by the Pharmacists Council and Food and Drugs Authority of Ghana. This act clearly prohibits the display, distribution and sale of all categories of medicines in unregistered outlets. Despite the stated Act, proliferation of pharmacy shops and license chemical stores, implementation of National Health Insurance Scheme which provide consumers with affordable healthcare and the continuous publicity on the dangers associated with the patronage of these drugs by mandated authorities, it is still public knowledge that majority of Ghanaians continue to patronize drugs peddled at bus terminals and along major streets. Ironically, citizens believe nothing concrete is being done to eradicate the problem by the authorities and no attention is given to why consumers still frequent street vended drugs. Additionally, much of the information on the hawking or street vending of medicines is published in the grey literature such as in newspapers and internet articles instead of scientific literature, suggesting significant under reporting or a lack of properly designed studies.

The focus of this paper is to explore the reasons why there is high support for street drug vending in Ghana and its causes, if such is the case despite good public medical support from the state.

2. Methodology

Two (2) main lorry stations and their associated busy streets within the Ho municipality were used for the study. The terminal was used because it serves as an avenue where all major activities concerning drug vending are carried out. The street considered ranks among the busiest with heavy traffic inflow to and from Ho throughout the day.

This study is an exploratory one aimed at investigating the types and reasons of high patronization of hawked or street vended pharmaceutical drugs. The researchers chose this design as the field of study is fairly unexploited, especially in the Ghanaian context. Our choice of design is based on the proposition of (Philips and Pugh, 1987; Webb, 1992; Ghauri et al., 1995) that exploratory research is most useful in the preliminary stages of a research project when the levels of uncertainty and of general ignorance of the subject in question are at their highest, and when the problem is not very well understood and unstructured.

The researchers employed convenience sampling technique to select one thousand two hundred (1,200) adults samples (18yrs +) for the study. This approach is to help the researchers select the most accessible subjects and it is least costly in terms of time and effort (Oisín, 2007; Marshall, 1996) since the target population is infinite.

A structured interview was the main instrument used to collect data from the respondents for the study. The questions have fixed responses or predetermined alternatives which help in simple administration and data consistency (Malhotra and Birks, 2003) and to enable quick responses and less writing. The closed ended questionnaire was designed to establish demographic profile (age, gender, employment type, income level and educational level) of respondents, assessment of the type of vended drug purchased, awareness and type of risk associated with patronizing vended drugs. Rating of quality of drugs and factors influencing consumers decision to purchase vended drugs were evaluated on a five (5) point item Likert scale (1= very good/strongly agree; 2= good/agree; 3= neutral; 4= bad/disagree; 5=very bad/strongly disagree). The likert format was used to determine attitudes in case of influencing factors and experiences in quality assessment of consumers (Shaw and Pieter, 2000). The questionnaires were administered in five (5) sections - Monday to Friday covering fifty (50) questionnaires per each of the twenty-four (24) trained research assistants between 6th-10th January 2014, designated at eighteen (18) lorry terminals and two (2) streets. The research assistants abetted in the administration of the questionnaires and more importantly helped to interpret the questions in the local language and record the responses by checklist. To restrict a respondent to participate once in the study, respondents were identified with a particular code given to them by the research assistants during their first participation or interaction. A total of 983 questionnaires were used after editing, giving a response rate of 84.69%. The unusable questionnaires were mainly caused by poor interpretation of questionnaire by research assistants to respondents. The SPSS statistical package was used for data input and results were analyzed using descriptive statistics and are expressed as numbers and percentages.

3. Results

Table 1 below measures the demographic distribution of respondents. Out of the 983 questionnaires utilized for this study, 573 (58.3%) are males and 410 (41.7%) are females. Furthermore, 659 (67.0%) of the respondents are aged between 18yrs to 45yrs, 251 (25.5%) are aged between 46yrs and 60yrs and 73 (7.45) are aged above 61yrs. In examining respondents type of employment, the finding indicates that majority of them are self-employed; 482 (49.0%), 273 (27.8%) are employed in the government sector and the remaining 228 (23.2%) are employed in the private sector. For income levels per month, 617 (62.8%) of the respondents earn incomes less than or equal to Ghc 500.00 (\$199.00), 229 (23.3%) earn between Ghc 501.00 and Ghc 999.00 (\$200.00 and \$399.00) and 137 (13.9%) earn incomes above Ghc1,000.00 (\$400.00). On the respondents level of education, majority hold SSCE/WASSCE/GCE "O&A" Level certificate (384; 39.1%), followed by Diploma (243; 24.7%), undergraduate (131; 13.3%), postgraduate (87; 8.9%). Other qualifications cater for the remaining 138 (14.0%).

Table 1: Respondents Characteristics

Gender	Freq	Percent	Age	Freq	Percent
Male	573	58.3	18yrs -45yrs	659	67.0
Female	410	41.7	46yrs -60yrs	251	25.5
Total	983	100	61yrs above	73	7.4
				983	100

Type of Employment	Freq	Percent	Level of Income per month	Freq	Percent
Self-Employment	482	49.0	≤ Ghc500	617	62.8
Government Sector Employment	273	27.8	B/n Ghc 501 and 999	229	23.3
Private Sector Employment	228	23.2	Above Ghc 1000	137	13.9
	983	100		983	100

Level of Education	Freq	Percent
SSCE/WASSCE/GCE "O&A" Level	384	39.1
Higher National Diploma	243	24.7
Undergraduate	131	13.3
Postgraduate	87	8.9
Others	138	14.0
	983	100

Source: *Field Survey* 6th-10th January 2014

Table 2 below evaluates whether the respondents have ever patronized vended drug, the type of vended medicine patronized, assessment of the quality of the drug, their awareness of the risks associated with the purchasing and intake of vended drugs and the type of risk.

A 'direct question' approach asked respondents if they have purchased vended pharmaceutical drugs before. Of the 983 questionnaires utilized, majority of the respondents, 734 (74.7%) indicated yes and the remaining 249 (25.3%) indicated no. For those who suggested "no" an open - ended question was asked to elicit their reason(s) for not patronizing vended drugs. A summary of their responses show that 15.7% indicated sellers are deceitful; 7.2% indicated because those medicines are not prescribed for them by doctors; 32.3% indicated vended medicines are harmful; 27.2% indicated they are faked; 14.2% indicated majority are expired drugs and the remaining 3.4% gave no reason.

Table 2: Whether Respondents Ever Purchased Vended Medicine, Type of Medicine Purchased, Assessment of the Quality of Medicine Purchased, and Types of Risk Associated with its usage

Ever Patronized or Purchased Vended Drug			Types of Medicine Respondents have ever Purchased		
	Freq	Percent		Freq	Percent
Yes	734	74.7	Over the Counter Drugs	196	26.7
No	249	25.3	Prescription Drugs	199	27.1
Total	983	100	Herbal Medicine	251	34.2
			Other Combinations	88	12.0
				734	100

Assessment of Quality of Drug Purchased after Usage	Very good	Good	Neutral	Bad	Very Bad
Over the Counter Drugs	5.1	2.1	0.3	6.8	13.1
Prescription Drugs	2.1	1.7	0	11.4	12.3
Herbal Medicine	25.5	9.1	1.3	2.6	-
Other Combinations	0.5	2.4	1.1	2.5	0.1
Total	33.2	15.3	2.7	23.3	25.5

Awareness of Risks Associated with Purchased Vended Drugs			Type of Risks Associated with Vended Drugs		
	Freq	Percent		Freq	Percent
Yes	648	88.4	Treatment Failure	258	39.4
No	85	11.6	Damage to the Patients' Health	249	38.0
Total	743	100	Death	63	9.6
			Other Combinations	85	13.0
				743	100

Source: *Field Survey* 6th-10th January 2014

In assessing the type of drugs purchased, those who answered 'no' were routed out from further participation in the study; those who said, 'yes' were asked to continue answering questions. For respondents who purchased vended drugs, 251 (34.2%) go for herbal medicine, 199 (27.1) patronized prescription drugs, 196 (26.7%) purchased over the counter and the remaining 88 (12.0%) patronized a combination of two or three drugs. In addition, the study shows that patronage of herbal medicine is high for all data analyzed for within demographic data of respondents. Thus 31.8% for 18years -45years; 35.3% for between 46 years and 60 years and 50.0% for

61 years above for age of respondents. This shows a cumulative 33.0% of males as compared to 35.7% of females for gender of respondents. Furthermore, 33.0% of self-employed, 30.7% of respondents in government sector employment and 30.1% of respondents in private sector employment in the case of employment type. Likewise, 34.4%, 33.0% and 35.5% of respondents that earned less than Ghc 500.00, between Ghc 501.00 and Ghc 999.00 and Ghc 1,000.00 and above respectively patronized vended herbal drugs. In the same way 33.8%, 30.6%, 30.4% and 32.4% of respondents are qualified SSCE/WASSCE/GCE “O&A” level, Higher National Diploma graduates, undergraduates and post graduates respectively patronized vended herbal drugs.

More analysis for percentage within type of vended drugs respondents have ever purchase, indicated for age of respondents, patronage decreased with increase in age for all category of drugs. Similarly, for level of income, and level of education, patronage decreases with an increase in income, and increasing level of educational attainment for all categories of drugs analyzed respectively. Likewise for type of employment, patronage decreases from self-employment to private sector employment.

In further assessing the quality of the vended drugs purchased, equal or proportionate number of respondents, 48.5% and 48.8% rated them to be good and very good, and bad and very bad respectively. Decomposing the quality of assessment based on specific drug, of the overall 33.2% who assessed the vended drugs to be very good, majority, 25.5% (very good) and 9.1% (good) patronized herbal medicine. Additionally, majority of the respondents who patronized over the counter and prescription drugs rated them either bad (OC-6.8% and PD-11.4%) or very bad (OC-13.1% and PD-12.3%)

Results on awareness of risks associated with purchasing vended drugs suggest 648 (88.4%) are conscious of the risks. Of the type of risk, 258 (39.4%) indicated treatment failure; 249 (38.0%) indicated damage to patience health; 63 (9.6%) indicated death and the remaining 85 (13%) indicated combination of two or three types of risks.

A five point Likert scale to examine how strongly respondents agree or disagree with statements on factors that influence their decision to purchase vended medicine is analyzed in table 3 below. It is significant to note that majority of the respondents were of the view that the factors listed have major effects on their decision to patronize vended drugs. The factors and their score include the following: time spent at hospitals or pharmacies (85.9%); level of information dissemination by authorities (66.6%); accessibility of healthcare facility and shops (52.4%); cost of medical delivery (64.6%) and weak institutions and regulations (75.8%). However, 70.4% of the respondents disagreed that their level of education have influence on their decision to purchase vended drugs. Equally, 54.8% also disagreed that they are not influenced by inability of doctors to prescribe medicines for them.

Table 3: Factor Influencing the Patronage of Vended Medicine

Factors	Responses In Percentage				
	SA	A	N	D	SD
Time spent at hospitals and pharmacies	58.1	27.8	-	10	4.1
Level of Education	15.7	9.6	4.3	50.2	20.2
Level of Information Dissemination by authorities	37.7	28.9	-	33.4	-
Accessibility of healthcare facility and shops	36.1	16.3	5.6	22.7	19.3
Cost of medical delivery	45.4	19.2	2.1	22.2	11.1
Weak institutions and regulations	31.7	44.1	0.2	9.4	14.6
Cannot access high quality drugs unless prescribed by a qualified doctor	29.3	8.3	7.6	31.7	23.1

Source: *Field Survey* 6th-10th January 2014

SD– Strongly Disagree, *D* – Disagree, *N*– Neutral, *A*- Agree and *SA* – Strongly Agree

4. Conclusion and Discussion

There are few things in life that involve as much trust as buying pharmaceutical products along the streets or markets. Consequently, institutions have been established and public health laws, regulations and guidelines have been developed over the years to protect consumers of unhealthy practices. Street vendors are a big concern in Ghana though the laws of the state forbid hawking of pharmaceutical products. However, the practice of drugs peddling is reckoned to be high in the country and citizens believe nothing concrete is being done to eradicate the problem, by the authorities and there is no attention given to reasons why consumers still patronize street vended drugs. This study sought to demonstrate, why there is a high demand for vended drugs, assess their quality and the causal factors.

The high numbers of respondents thus 74.7% who patronized street vended drugs suggest that hawking of medicines remain pervasive despite its prohibition by relevant laws. This implies that majority of respondents are engaged in self-medication, therefore exposed to consumption of counterfeited, poor quality drugs and are possibly unprotected from abuse and addiction, and other associated effects. The problem with self-medication is either the drug seller or the consumer is unaware of the correct dosage and duration of treatment (Okeke et al, 2006). The freedom in which drug vending and patronage takes place also suggests a strong and successful

bonding between vendors and the consuming population. The bonding appeared strong enough for consumers to patronize and trust the vendors for their medicinal needs without as much as ascertaining their capability and competency to discharge the trust appropriately (Yusuff and Wassi, 2011). The effortlessness consumers go through in getting these drugs also suggest that government has been benevolent towards the drug vendors and is not supporting the regulatory agencies that are fighting against this malaise.

Furthermore, the study reveals that the most patronized drug is herbal medicine when comparison is made for responses within demographic data. This observable fact is not surprising since a study by Grünwald (1995) has validated global public interest and rise in natural therapies, namely herbal medicine in both developing and industrialized countries. This occurrence can be narrowed down to tendency of self-medication, high cost of synthetic medicines, proof of efficacy and safety of herbal medicines, and most importantly the belief that herbal medicines might be of effective benefit in the treatment of certain diseases where conventional therapies and medicines have proven to be inadequate (Grünwald, 1995 in Calixto, 2000). It is however, significant to note that the preference for herbal medicine in Ghana is worrisome since most of the medicines have not undergone clinical tests to authenticate their safety. Again, the quality of these medicines cannot be guaranteed given that nobody is aware of the procedures engaged by the producers. Likewise, the legal process of regulation and legislation of herbal medicines in Ghana is continuously flouted by those who engage in the production, and only few herbal preparations have been tested for safety and efficacy.

The findings also reveal that patronage for all categories of drugs assessed for within type of drug show a decrease in quantity as there is an improvement in respondent demographic data. These results are very significant in view of direct relations between higher level of education and level of income. "Early philosophers such as Aristotle and Plato pointed out that education is central to the moral fulfillment of individuals and the well-being of the society in which they live" (OECD 2013: 1). In the past few decades, research has supported this conventional wisdom, revealing that education not only enables individuals to perform better in the labour market, but also helps to improve their overall health. According to Greenstone and Looney (2010) higher levels of education do result in higher earning power. The analysis above presents evidence on the relationship between education and social outcomes including health. This directly affects consumers' tendency to purchase vended drugs since they cannot afford the expensive drugs due to higher purchasing power at their disposal. Finding from Chan et al (2003) indicates that low-income/education among Asian patients had a high direct relationship between the type and costly drug interventions. The finding of the research seems to be consistent with the work of (Chan et al, 2011).

According to Nordberg (2004) consumers' lack of knowledge on drug quality make them vulnerable to the business interest of drug sellers. In assessing the quality of drugs purchased, a high majority of respondents who purchased herbal medicine evaluate them to be either good or very good which is consistent with the findings of (Mhame et al., 2010; Kasilo et al., 2010; Sambo 2010), in papers delivered during the African traditional medicine day in August 2010.

A study on over the counter and prescription drugs found in places such as the streets and open markets may be of lower quality since they are often not well regulated; for instance, low level providers (patent medicine vendors) accounted for 78% of suspect medicines in Onwujekwe et al. (2009) and 90% of medicines found to be substandard in Tipke et al. (2009) were obtained from illicit outlets (markets, street vendors and shops). The findings from the study supported the above assertion since majority of respondents who purchased over the counter or unprescriptive drugs evaluate them to be either bad or very bad. This finding also concur with the work of (Bate and Hess, 2010; Oforo-Kwakye et al, 2008).

Increasing consumer awareness of the need to consider potential risks prior to taking drugs purchased on the streets is a positive sign. This is revealed by 88.4% of the respondents who indicated they are aware of the associated risks for purchasing drugs along the streets. Equal proportion of the respondents further indicated treatment failure and damage to patients' health as the main risk which is also consistent with the work of (Roy, 1994; Abdi et al. 1995; Milan, 1987; Pandya 1988; Masland and Marshall, 1990)

Lastly, in the consideration of factors that influence consumers to patronize vended drugs, the studies reveal that in the exception of respondent's level of education and inability of doctors to prescribe medicines for them to purchase vended drugs, all other factors are significant.

We conclude that Ghana is vulnerable to increasing activities of drug hawking and its attendant effects not principally because of the pronounced penchant to patronize these drugs, but because the safeguards or factors that could plausibly protect the societies from these problems are rarely in evidence. There is a long way to go in ensuring a zero tolerance to this illegitimate activity. Government and responsible agencies must be a step ahead of the players in this market in order to make any significant influence. It is without a doubt from the study that both economic and social factors are aggravating the unlawful trend; they are no more momentous than the political will and influence of government to play its role as the arbiter of law and order. The state must therefore reform, resource and support the institutions mandated to protect consumers. This would go far towards nurturing a more robust capability to contain the illicit activity.

5. Limitation

This study is limited in that; it is localized to consumers in a specific area. A generalization of results is a challenge. Further study which covers a wider area and more heterogeneous sample is recommended.

References

- Abdi, Y.A., Rimoy, G. Ericsson, O. Alm, C and Massele, A.Y. (1995), Quality of Chloroquine Preparations Marketed in Dar es Salaam, Tanzania. *The Lancet* 346, 1161
- Arya, S. C. (1995) Inadvertent Supply of Substandard Drugs. *World Health Forum* 16, 269
- Bate, R. and Hess, K (2010), Anti-malarial Drug Quality in Lagos and Accra-a comparison of various drug quality assessments. Available at <http://fightingmalaria.org/research.aspx?id=1456>. Accessed on 10/01/2014
- Calixto, J. B. (2000), Efficacy, Safety, Quality Control, Marketing and Regulatory Guidelines for Herbal Medicines. *Brazilian Journal of Medical and Biological Research*, 33(2): 179-189
- Chan, W.M., Mak, J and Epstein, R. J (2011), Impact of Income and Education on Drug Purchasing Decisions in Hong Kong Chinese Cancer Patients: A Pilot Study. *Asian Pacific Journal of Cancer Prevention*, 12(8): 2093-2096
- Davis, J. (2008), Selling Wares on the Streets of Accra: A Case Study of Street Hawkers in Ghana's Capital. *Focus on Geography*, 51(3):32-36
- Ghuri, P., Grønhaug, K and Kristianslund, I (1995), *Research Methods in Business Studies - A Practical Guide*, Prentice Hall, Harlow, Essex, UK.
- Greenstone, M. and Adam, L (2010), An Economic Strategy to Renew American Communities the Hamilton Project, Strategy Paper. <http://www.economics.mit.edu> (Accessed 10/01/2014)
- Grünwald, J. (1995), The European Phytomedicines Market: Figures, Trends, Analysis. *Herbal Gram*, 34: 60-65.
- Kasilo, O.M.J, Trapsida, J.M., Mwikisa,N.C and Lusamba-Dikassa,P.S (2010), An Overview of the Traditional Medicine Situation in the African Region, *The African Health Monitor*, World Health Organization Special issue 14 pp. 7-15
- Kron, M. A (1996), Substandard Primaquine Phosphate for US Peace Corps Personnel. *Lancet* 348, 1453–1454
- Law, E. and Youmans, L.S (2010), Combating Counterfeit Medications: The California Pharmacist Perspective. *Journal of Pharmacy Practice*, 24 (1): 114-121
- Malhotra, N. K., and Birks, D.F (2003), *Marketing Research: An Applied Approach*. Prentice Hall, Harlow.
- Marshall, M. N. (1996), Sampling For Qualitative Research. *Family Practice*, 13(6): 522-525
- Masland, T and Marshall, R (1990), The Pill Pirates. *Newsweek*, 5 November, 18–23
- Mhame, P.P., Busia, K and Kasilo, O.M.J (2010), Clinical Practices of African Traditional Medicine, *The African Health Monitor*, World Health Organization Special issue 14 pp. 32-39
- Milan, M. M. (1987), Doctors Blame Fake Medicines for Deaths. *The Sunday Times*, 1 November, 15
- Milissa McGinnis, M. A. (2010), Matrix of Medicine Quality Reports Affecting USAID-assisted Countries by the Promoting the Quality of Medicines program. Available at <http://www.usp.org/pdf/EN/dqi/ghcDrugQualityMatrix.pdf>. (Accessed 08/01/2014)
- Nordberg, B. (2004), Consumers and providers-could they make better use of antibiotics?http://soapimg.icecube.snowfall.se/stoppresistance/consumers_and_providers. (Accessed 08/01/2014)
- OECD (2013), What are the social benefits of education? *Education Indicators in Focus* <http://www.oecd.org/edu/skills-beyond-school> (Accessed 10/01/2014)
- Ofori-Kwakye, K., Asantewaa, Y and Gaye, O (2008), Quality of Artesunate Tablets Sold in Pharmacies in Kumasi, Ghana. *Tropical Journal of Pharmaceutical Research*, 7 (4): 1179-1184
- Ogoh Alubo, S. (1994), Death for Sale: A Study of Drug Poisoning and Deaths in Nigeria. *Social Science and Medicine*, 38(1): 97–103
- Oisín, T. (2007), Process Tracing and Elite Interviewing: A Case for Non-Probability Sampling. *Cambridge Journal Online*, 4, 765-772.
- Okeke T.A, Uzochukwu, B and Okafor, H (2006), An In-Depth Study of Patent Medicine Seller's Perspectives on Malaria in Rural Nigeria Community. *Malaria Journal in Pubmed Central*, vol. 5: 97
- Okuonghae, H.O., Ighogboja, I.S., Lawson, J.O and Nwana, E.J.C (1992), Diethylene Glycolpoisoning in Nigerian Children. *Annals of Tropical Paediatrics*, 12(3): 235–238
- Onwujekwe, O., Kaur, H., Dike, N., Shu, E., Uzochukwu, B., Hanson, K., Okoye, V and Okonkwo, P (2009), Quality of Anti-Malarial Drugs Provided By Public and Private Healthcare Providers in South-East Nigeria. *Malaria Journal*; 8 (22): 1-9
- Pandya, S.K (1988), An Unmitigated Tragedy. *British Medical Journal* 297, 117–119
- Phillips, E. and Pugh, D (1987), *How to get a PhD*, Open University Press
- Roy, J. (1994), The Menace of Substandard Drugs. *World Health Forum* 15, 406-407
- Sambo, L.G., (2010), The Decade of African Traditional Medicine: Progress So Far, *The African Health Monitor*, World Health Organization Special issue 14 pp. 4-6

- Shaw, G. and Pieter, W (2000), The Use of Asynchronous Learning Networks in Nutrition Education: Student Attitude, Experiences and Performance. Accessed [17. 12.13].
- Silverman, M.M., Lydecker, M and Lee, P.R (1990), The Drug Swindlers. *International Journal of Health Services*, 20, 561–572
- Tinker, I. (2003), Street Foods: Traditional Micro-Enterprise in a Modernizing World. *International Journal of Politic, Culture and Society*, 16(3): 331–349.
- Tipke, M., Diallo, S., Coulibaly, B., Störzinger, D., Hoppe-Tichy, T., Sie, A and Müller, O (2009), Substandard Anti-Malarial Drugs in Burkina Faso. *Malaria Journal* 7: 95
- Webb, J. (1992), Understanding and Designing Marketing Research. The Dryden Press, London

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