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Research Article

Self-Medication Practices to Under-Five Children in A Sub-Saharan State: A Sociological Discourse

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Abstract

The practice of self-medication to under-five children can never be done in isolation. Various groups in the society are involved in this practice. However, self-medication practice to under-five children in Nigeria has not been well focused. Much attention is given to adolescents , pregnant , health workers and tertiary students. Self-prescription and medicating to the pediatric age group is not an autonomous, free and voluntary decision. Rather, it is based on the subjective interpretation of symptoms made by the caregiver. In other to determine factors, perceptions, and realities related to this practice, analyzing this situation is of great importance. The literature review section is organized based on themes and sub-themes which are linked directly to the research questions and objectives of this study. The writing of this research depended on various sources and a couple of books. Google Scholar was utilized for the general pursuit and enhanced by various databases, for example, EBSCOhost, JSTOR, Hinari, ProQuest, and PubMed. This was trailed by particular quests of predominant distributors in the sociologies, concentrating on BMC Journals, Sage Journals, John Wiley Journals, Springer, Science Direct, Oxford Journals, Cambridge Journals, PsycINFO, and PsycArticles for extra companion looked into articles. Hence, the need to understand the various sociological discourse underpinning the practice of self-medication.

Keywords: Under-Five, Self-Medication, Self-Prescription, Sociological Factors, Caregivers, Mothers.

Introduction

The practice of self-care in form of self-medication to children needs to be interrogated among their caregivers. As children present with different illnesses that need to be treated with various types of medicines and medicaments, thus self-medication practices call for an assessment. Further initiatives are required by parents to provide trustworthy information concerning the management of childhood illnesses (Kelly, Sahm & Shiely, 2017). Despite parents having a general understanding of illness symptoms, they did not always attribute illness to biomedical causes. The use of traditional medicine and self-treatment were found to be common first steps in treatment before seeking hospital care (Dougherty, Gilroy, Olayemi, Ogesanmola, Ogaga & Nweze, 2020). Considering the socio-cultural, economic, and political factors influencing access to healthcare facilities, such practices may be enhanced. Hence self-medication to the children remains significantly inevitable and worthy been considered.

Traditional beliefs, attitudes, and practices dominate the care of children in most countries (John & John, 2015). Such common traditional practices especially the use of various medicaments and other indigenous practices are done to under-five children despite their acclaimed harmful effects. Though their perceived effects are adjudged to be very effective, hence endeared to their usage. However, (Muoneke, Una, Mbachu, Eke, Ododo, et al., 2018) reported the usage of antimalarial, local herbs, homemade remedies, and antibiotics in self-medication by caregivers to under-five children in a rural community in Southeastern Nigeria. The respondents were influenced by this practice by their educational status. This corroborated the impact of social status in the enhancement of the self-medication practice to the under-five children. Almost all mothers self-medicate their children as doctors and pharmacists played a significant role of advice and information to parents in the choice and use of the drug in self-medication (Katumbo, Tshinningi, Sinanduku, Mudisu, et al., 2020).

Self-medication among adolescents

The practice of self-medication among adolescents reviewed globally reveals an upward trend in prevalence. A systematic literature review by (Shehnaz, Agarwal, and Khan, 2014) reported that self-medication is practiced globally among adolescents, the prevalence ranged between 2% to 92% in different countries. Over-the-counter analgesics and antibiotics were predominantly used and the drug was mostly sourced from pharmacies, friends, and parents. However, there is a gap in drug knowledge among the respondents. Also, the various trends were not identified across different countries. In his bid to study the prevalence of self-medication practices among respondents aged less than or equal to 18 years in a rural area of India, (Khan, Ahmad, Khalique, Ansari, Maroof, Najmul, and Khan, 2016) established that 72% of them practice self-medication. The author identified the increase in the prevalence of self-medication across different population groups in the community. There was not any statistically significant gender difference and mild illness and convenience were the reasons for engaging in the practice. The methodology adopted was a cross-sectional design using a systematic random sampling technique to obtain the sample. However, the respondents were limited to registered families under the rural health training center in the region who have experienced illness within the last six months before the collection of data. This inclusion criterion might have contributed to the increase in prevalence as the respondents were already accessing a healthcare facility for medical services, hence been knowledgeable of the practice.

Also, the recall period for the illness episode was short. To corroborate the increase in the prevalence of this practice, (Moraes, Delaporte, Molena-Fernandes, and Falcao, 2011) reported the prevalence of 52.6% among adolescents of the high school population in Southern Brazil. But the prevalence was low when compared to the Khan *et al.*, (2016). Reasons included might be the age limit to adolescents (14-18 years) and the short recall period preceding the data collection. This in general, implies a high prevalence of self-medication in adolescents across countries studied.

In a sociological study of self-medication among 18-50 years old people in Iran using a descriptive cross-sectional study with cluster random sampling of respondents, 92% prevalence was achieved. The prevalence was highest (35.4%) among the 30-49 age group. This shows that self-medication practice increases with age; lowest 7.2% (18-20) age group, (Ali, Abdoreza, Mehrnaz, Fereidoon and Maryam, 2016). It was also indicated that self-medication decreases with education level and no significant relationship were identified between gender, marital status, and the job of the respondents. Gualano, Bert, Passi, Stillo, Galis, Manzoli, and Siliquini (2014) advanced the position by the above scholars that self-medication practices are on the increase among adolescents. In this systematic review and meta-analysis of self-medication among adolescents overall 50% prevalence was noticed. This further corroborates that this practice among adolescents is a widespread phenomenon. Since this has been established in the group, this study will be positioned for the practice among the under-five group.

In contrast, (Biswas, Roy, Manik, Hossain, Tapu, Moniruzzaman, and Sultana, 2014) in his evaluation of the prevalence of self-medication with antibiotics for the treatment of various diseases among adolescent patients in the clinic in Bangladesh reported 26.6% prevalence as male respondents practice self-medication than the female respondents. This low prevalence, when compared to the above studies, could be adduced to its small sample size and seasonal variations of diseases that are not taking into consideration, hence there may be a need to involve more patients. Meanwhile, the prevalence of self-medication with antibiotics ranged from 19% to 82%, (Alhomoud, Aljamea, Almahasnah, Alkhalifah, Basalelah, and Kais, 2017), in his systematic review among adults aged above 18 years living in the Middle East. Socio-cultural, economic, and regulatory factors were contributing factors to self-medication among outpatients in the clinic, antimalarial, antibiotics, and analgesics were commonly used. They self-medicate for minor ailments because of financial constraints.

Self-Medication Practice Among Healthcare Workers

The prevalence of self-medication among the groups working in the healthcare sector needs to be assessed. In Nigeria, the prevalence of 94.8% was noticed among health workers in a tertiary hospital. Reasons which contributed to the high prevalence include financial problem, mild sickness, lack of time, perceived knowledge of diagnosis, conveniences, and non-availability of doctors. However, the study did not categorize the various health workers, hence should have been highlighted. Also, the variables should have been matched against different categories of health workers. Sontakke *et al.* (2011) in a comparative study of self-medication practice in first and third-year medical students in India, recorded a prevalence of 77.9% among first-year students and 74.7% among third-year students. As expected, they have a very good knowledge of medication and drugs majorly used were analgesics and antipyretics. Despite been knowledgeable, they too are involved in the practice of self-medication. To corroborate these findings,

Kasulkar and Gupta (2015) also reported a prevalence of 71.7% to self-medication practice among medical students in a private institute in India. Analgesics and antipyretics were majorly used and despite their medical knowledge, the prevalence is very high. Findings from these studies affirmed a high prevalence of self-medication practice in the health sector.

Self-Medication Among Students

It has been noted that self-medication practices extend to tertiary students and its prevalence among them needs to be addressed. In assessing self-medication practice among tertiary students in Nigeria, the prevalence of self-medication among them was 73.3%, Oguntokun, Wannang, and Ogunleye (2017). The increased prevalence could be a result of the convenience sampling used in selecting the respondents and the short recall period too. The majority of the respondents were studying courses that were not health-related, hence making them more likely to practice self-medication. They used various medications, herbs, and pharmaceutical products while analgesics and antibiotics were mostly self-medicated. In contrast, the prevalence was low, 32.7%, among university students in Ethiopia, Dessaleg (2017). The cross-sectional study in which the respondents were selected through random sampling technique, revealed that analgesics and antibiotics were mostly used as female sex and income also influence the practice. However, the study population was limited to social science students, hence the findings cannot be generalized. Auta, Shalkur, Omale, and Abiodun (2012) while assessing medical knowledge and self-medication practice among undergraduate students in a tertiary institution in Jos, Nigeria revealed a prevalence of 51.5% among them. A high prevalence of 56.9% in self-medication practice among dental students in tertiary institution in Benin City was determined by Ehigiator, Azodo, and Ehikhamenor (2010).

Self-medication among pregnant women

Apart from the above-mentioned groups, it is of note that self-medication practice is done by pregnant mothers. For instance, self-medication was prevalent in 62.9% of pregnant women attending antenatal clinics in a tertiary hospital in Jos, Nigeria, Joseph, Ezie, Aya, and Dapar (2017). Despite demonstrating adequate knowledge about medicine safety issues, the prevalence of practice was still high among them. Considering experiencing this practice while pregnant may connote not been aware of its deleterious effect on the pregnancy outcome. Major facilitators of this practice include experienced from the previous ailment and perceived knowledge of their condition. Also, a great risk to the fetus was associated with self-medication practice and the type of drug use among pregnant women in Ekiti, Nigeria and the prevalence among them was 31.5%, Adanikin, and Awoleke (2016). This shows the extent of the burden of this practice among pregnant women in a developing world. Though the reasons for the practice were not explored. The scenario in the Middle East is not different as a review indicated a prevalence range of 22.3% to 82.3% to self-medication practice among pregnant women in this region, John and Shantakumari (2015). Most of them used herbal medicine to treat gastrointestinal disorders and flu, especially during their first trimester as they were advised by family and friends.

Theoretical Framework

This study integrated the Theory of planned behaviour, health belief model, and Political Economy Theory. The theory of planned behaviour is a modification of the theory of reasoned action. The theory of reasoned action looks to clarify normal conduct over which individuals have finish control. The theory of planned behaviour moreover tries to clarify non-volitional practices, objectives, and results, which are not by any stretch of the imagination under the control of the individual. The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviors. This is done by focusing on the attitudes and beliefs of individuals. Political Economy of health refers to analysis and perspectives on health and health policy for the understanding of the condition which shape population health and health services development within the wider macro-economic and political context.

Theory of Planned Behaviour

Created by Icek Ajzen in 1985, the theory of planned behaviour (TPB) is today maybe the most well-known socialpsychological model for the forecast of behaviour. It has its underlying foundations in Martin Fishbein and Ajzen's theory of reasoned action, which was produced because of the observed absence of correspondence between general demeanors, for example, racial or religious states of mind, and real behaviour. Rather than managing general states of mind of this kind, the TPB centers around the behaviour itself and goes past attitudes to think about such different impacts on behaviour as apparent social norms and self-efficacy convictions (Albarracin, Johnson, and Zanna, 2005).

Many of the influences on self-medication are likely to be mediated by the beliefs and attitudes held by the individual. These beliefs about efficacy and effectiveness of orthodox/unorthodox medicines, herbs, concoctions, traditional or religious practices in self-medication may be more important than actual effectiveness and consequences in determining a caregiver's medication practices. Likewise, various economic, social, cultural, religious, or demographic factors will act through the attitudes and beliefs held by the person. As such the study of the relationship between these sociological factors and the beliefs and attitudes held by a person offers one possible route towards a better understanding of the influence of different sociological factors on self-medication practices.

With volitional practices, it is contended that expectation to play out conduct is the best indicator of behaviour. The expectation is anticipated by two segments: the individual's mentality (e.g., regardless of whether the individual sees the conduct as great, advantageous, charming, and so on) and saw social strain to carry along with these lines (named subjective norm). The theory of planned behaviour incorporates a part of perceived control, which is theorized alongside mentality and subjective standard, to foresee conduct expectations and may likewise impact the intention-behavior link.

Attitude thus is anticipated by the total of results of convictions about results of the behaviour and the individual's assessments of these results as great or awful. The subjective standard is anticipated by the whole of results of regularizing convictions which are perceived pressure from particular powerful individuals or gatherings (e.g., specialists, family) and the individual's inspiration to consent to the desires of these individuals or gatherings. Comparably, perceived control is dictated by the entirety of particular control convictions adjusted by the apparent intensity of the control variables to encourage or repress execution of conduct (Ajzen, 1991).

The first origination of the theory of reasoned action expected that impacts other than beliefs, attitudes, social pressure, and intention would act through these factors (Ajzen and Fischbein, 1980); this would likewise apply to the theory of planned behaviour, albeit here perceived control would be an extra segment of the model. Subsequently, demographic factors for example age or social class, should impact behaviour just through the model factors and not act as independent behaviour. According to the theory of planned behaviour, a person's intention to perform a certain behaviour is influenced by his or her attitude toward the behaviour, subjective norms (perceived social pressure about the behaviour), and perceived control over performing the behaviour (Ajzen, 1991).

The components of the TPB are:

- Behavioral beliefs: the likelihood that action might promote or negate a given outcome and evaluating outcomes achieved or avoided in terms of their desirable and negative consequences.
- Behavioral attitudes: defined as the multiplicative sum of the individual's relevant likelihood and evaluation /severity-related behavioral beliefs. However, such attitudes may also be independently measured.
- Normative beliefs: include referent beliefs about what behaviors others expect and the degree to which the individual wants to comply with others' expectations
- Subjective norms: which are defined as the multiplicative sum of the two sets of normative beliefs, although these may also be independently assessed.
- Behavioral intentions: derived from the combination of the behavioral attitude and the subjective norm. Intents rather than attitude are as noted above, regarded as the main proximal cognitive precursors to acting.
- Control beliefs: the individual's perception of the external factors inhibiting or facilitating an action and self-efficacy, the individual's internal behavior-specific, executional self-confidence.
- Perceived Behavioral Control: defined as the product of the control beliefs and self-efficacy. PBC is seen as acting as a determinant of intentions alongside subjective norms and behavioral attitude and also as a direct influence on behavior additional to intention.

Strength

- It is a value-expectancy theory-based model
- TPB was developed to promote understanding of volitional behaviors, rather than those in large part determined by situational factors outside the control of the subject
- The model is inherently biased towards individualistic, rationalistic interpretations of human behavior. Weakness
- It does not offer a comprehensive understanding of the social and economic determinants of health behavior.

Application of the TPB to this study

Self-medication practice is assumed to be a form of behavioral practice action done in the area of seeking healthcare treatment for a particular disease or illness. In this case, it's the self-medication practice by the caregivers and how it is done to the under-five children. It is observed that there are some influences in society that predispose the caregiver to engage in this practice of self-medication. These are mostly socio-cultural, demographic, economic, and political

factors. The extent and pattern to which they affect this self-medication practice are what will be explained by this theoretical framework using the TPB. Behavioral and normative beliefs are derived from individuals' perceptions of the social world they inhabit and are hence likely to reflect how economic or other external factors shape behavioral choices.

Health Belief Model

The Health Belief Model (HBM) is a standout amongst the most generally utilized theoretical systems for understanding health behaviour. The HBM is based on the understanding that a person will take a health-related action if that person:

- 1. feels that a negative health condition (i.e., adverse drug reactions) can be avoided,
- 2. has a positive expectation that by taking a recommended action, he/she will avoid a negative health condition (i.e., engaging a qualified physician will be effective at avoiding self-medication), and
- 3. believes that he/she can successfully take a recommended health action (i.e., he/she can consult a qualified physician).

Need to be mindful so as not to blame the victim. The Health Belief Model (HBM) stresses moral duty, which may lead individuals to feel it is their blame on the off chance that they can't take care of their medical issues. Sadly, a medical issue is regularly more unpredictable or might be caused by factors over which an individual has less individual control (e.g., financial or natural components).

Components Of Health Belief Model (HBM).

- Perceived susceptibility: how likely do you think you are to have health issues? How likely do you think your child will have health issues?
- Perceived Severity: how serious a problem do you believe this health issue is?
- Perceived Benefits: how well does the recommended behavior reduce the risks associated with this health issue? How well does Self-medication practice (herbal usage, traditional medicines, sacrifices, atonement) reduce the risk associated with under-five illnesses?
- Perceived Barriers: what are the potential negative aspects of doing this recommend behavior? What is the potential (healthcare/government policies/economic) negative aspects of practicing self-medication?

Application and Implication of HBM To This Study

In applying the health belief model to self-medication practices, it is important to relate it to various sociological factors influencing the practice among caregivers to under-five children in Southwestern states in Nigeria. The components of the HBM mentioned above, which dwells much on the perception of the clients to the practice or behaviour in question, i.e. self-medication practice. The perceived chance of the under-five becoming ill, perceived

seriousness of becoming sick with childhood illness, perceived benefits of self-medication practice, and perceived barriers of self-medication practice are the various constructs that will help the researcher to explore the caregivers' rationale or intent for the practice. This will further enable the researcher to delve into the socio-cultural, economic, and other factors that are likely to influence them to such practice. This theory helps to explore the degree to which most sociological factors influence the practice of self-medication among the caregivers to their under-five children.

As a social practice, self-medication is rampant and its influencers in society need to be understood among different caregivers to these under-five children. However, there is the possibility that some environmental indices will influence the practice, especially cultural and economic issues. At this level, the research looks at individual variables like age, gender, socio-economic background, and other sociological predictors of dispositions. This will inform the healthcare practitioner, government and non-government agencies, and the caregivers on the strategies that will improve the management of various childhood illnesses in the home environment and society at large. Personal and environmental events motivating a person to practice self-medication will be examined as a cue to action. So also, confidence in one's ability to successfully practice self-medication as part of the self-efficacy construct will be engaged (Tarkang and Zotor, 2015).

Political Economy of Health Theory

There is a need to understand health and the socio-cultural and political factors that affect it under the multiple relationships between health, illness, and its context. Health is related to society and its cultural, social, political, and economic environment. Health and social sciences are strongly related so also health determinants are interconnected. According to Virchow "Medicine is a social science and politics is nothing but medicine on a large scale. One approach, often ignored is the relationship between health, the political structure, power, business, religion, the market, and the ideological structures, all these culminate into a political economy approach (McCartney et al., 2019).

Political economy insists that an adequate study of the whole cannot be developed from the separate study of individual parts. Thus, to understand the health care system they should be situated within a larger geopolitical context and considered historically. The emphasis on the larger context has resulted in the recognition that analysing specific changes to the health care system must be considered in light of broader social, economic, and political factors.

Political economy also directs our attention to the role of various groups and individuals in social change. However, people have been seen not as autonomous individuals but as actively formed within specific social locations and relationships. Political Economy also involves an analysis of the cultural factors. It also draws attention to the values, benefits, and ideologies that have motivated particular healthcare reforms. Noone & Blanchette, (2018) showed that responsible, appropriate self-medication with non-prescription products can provide significant economic benefits for patients, employers, and healthcare systems worldwide. Also, Chang & Trevidi (2003) reported that self-medication is an inferior good at high-income levels and a normal good at low-income levels, and it shows a strong and robust negative insurance effect.

Integrating TPB, HBM, And Political Economy Theory for This Study

For this study, TPB, HBM, and Political Economy Theory were synthesized to enable us to understand fully how and why sociological factors influence the practice of self-medication among caregivers to their under-five children in south-western Nigeria. Considering self-medication to be a health behaviour among caregivers which is observed to be a common phenomenon among them, the TPB explained the various intents or rationale for engaging in such behaviour while the HBM explained how the various societal indices influence the practice among the caregivers. The political economy theory explained the interplay of social, economic, and political factors on the different providers of healthcare delivery and services as it is related to self-medication practices. These three theories are assumed to be able to provide a sociological exploration and explanation to the practice of self-medication among caregivers to their under-five children in the study areas.

Conclusion

This review draws evidence from literature in the developed and developing countries While there is a dearth of literature on self-medication specifically to the under-five population in Nigeria, this may reflect why this study is needed in this region. Some gaps were identified during the review as it relates to the sociological understanding of self-medication practice to under-five children. These include the role of cultural beliefs and practices in under-five health care; the relationship between social norms and self-medication practice; rural-urban differences in self-medication practice among caregivers; triggers and processes of change in health beliefs and practices; political – economy influences on self-medication practices. One final but important gap was identified in the literature reviewed in the study design which was majorly cross-sectional, retrospective, prospective, observational, and quantitative. Very few involved a qualitative approach which is required in understanding the various sociological underpinnings of self-medication practices.

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