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Factors Contributing to Non-Adherence to Treatment Regimen among Senior Citizens in Wiiyaakara Community of Khana Local Government Area, Rivers State

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#### **Abstract**

Non adherence to medication is a recognized problem and may be the most challenging aspect of treatment. This paper considers factors contributing to non-adherence to treatment regimen among senior citizens in Wiiyaakara community of Khana Local Government Area, Rivers State. A systematic review of factors that influence non-adherence to treatment regime was considered. This study was conducted on 100 elderly citizens of Wiiyaakara community. Results: Key drivers of non-adherence included lack of insight, medication beliefs and substance abuse, poor communication, lack of patient education, lack of professional conduct on the part of health workers at times. Non-adherence reduces the potential effect of drugs thereby bring about frequent visit to the health facilities. This in turn has negative social impact in the community and remedial intervention to address relapse. Findings showed that nonadherence to treatment regime among senior citizens affects parents, families, and the community-, through increased risk of death and other negative consequences. It is needful for Nigerian Government to improve and make affordable health services for the elderly. Healthcare service providers should improve their communication and professional conducts in dealing with elderly citizens. Empathy, patience, and understanding is required on the part of health service providers. Instructions should be given in simple, clear and plane terms to elderly patient. Elderly patients should be encouraged to keep to the treatment regimen.

Keywords: adherence, elderly citizens, healthcare, non-adherence, treatment.

## 1.0 Introduction

Non-adherence to prescribed medication and health regimen has been identified to be responsible for poor health outcomes and present arguably the most significant barriers to sustainable global development. Most researches agree that most patients fail to receive the full benefit of prescribed drugs due to inadequate adherence especially by the elderly.

Non-adherence and adherence to long-term therapies severely compromise the effectiveness of treatment, making this a critical issue in population health both from the perspective of quality of life and of health economics (Brown, 2014; Wright, 2008; Scopp, 2013). Non-adherence to malaria treatment can lead to reoccurrence of the ailment, the parasites becoming resistant to the drugs, so in future the drug will be less effective against the parasites. A low level of adherence to prescribed medication is a national and international problem and limits effective health care services.

Every second, two people celebrate their 60<sup>th</sup> anniversary according to Help Age International (2017). Globally, in 2015, there were 901 million people who were 60 or older, most of whom are elderly people living with developing countries. This number is expected to be more than double by 2050, reaching 2.1 billion (20% of total world population). Interestingly, the number of people aged 80 or older is growing even faster than the elderly in general. By 2015, about 14% of the elderly population (125 million) was 80 or older, and that number is expected to triple by 2015, reaching 434 million approximately 20% of the senior population according to WHO (2015). As earlier stated, low levels of adherence to prescribed

medication remains a national and international problem that limits effective health care services. For people with chronic medical illnesses, medication non-adherence substantially adds to disease burden and leads to poorer long-term health outcomes.

The problem of non-adherence has been highlighted by widely known health care policy and research organizations, including National Quality Forum, National Priorities Partnership, World Health Organization (WHO, 2015) and the Network for Excellence in Health Innovation (NEHI), which was previously known as New England Healthcare Institute (NEHI, 2009) and other local organizations.

Non-adherence to medication represents a major problem that limits the effectiveness of treatment and adds to the burden of illness and cost of health care. For these reasons, the National council undertook development of this report. The paper was completed using the following steps: drafting an outline and making clear the problem statement, convening the expert panel for a two-day meeting, compiling literature, completing a first draft, soliciting panel's feedback and updating the narrative for a final draft (Hihashi, 2013).

Taking Korea for an example, the number of elderly patients aged 65 years and over continues to increase at unprecedented rate, and they comprised 13.1% (6.62 million people) of the total population of South Korea in Statistics Korea (2015). Approximately 90% of older adults suffer from more than one chronic condition, and over 69.7% of those aged 65 years older have multiple chronic diseases, which may result in complexity in the medication regimen. Also, among patients who are aged 65 years and above, 82.0% take more than one prescribed medication and 60.3% of these patients have prescriptions that contain three or more medications. It is a growing concern that these elderly people are the major consumers of medication in Korean society according to Ministry of Health and Welfare on the status of older Koreans (2015). Although, appropriate drug therapy can contribute to alleviating symptoms and reduction of morbidity and mortality rates, the use of medications can also be a burden on health care costs, risk of side effects, and noncompliance in the elderly patients.

According to the recent literature, there are various risk factors associated with non-adherence in elderly patients. These include patient factors (such as old age, male gender, low education level, physical and mental status, and health literacy- HL); medical factors (such as complexity of medication costs, poor labeling instructions); patient-provider relationship factors (dissatisfaction with health care provider, lack of trust, and lack of patient involvement); and health care system factors (such as inability or difficulty in accessing pharmacy, lack of follow-up, and poor treatment by untrained staff). In particular, the relationship between Health Literacy (HL) and medication adherence among patient characteristics is an emerging clinical concept in pharmacy (Korea Statistics on Elderly, 2015).

Non-adherence to medication is an alarming problem among elderly patients. As elderly people are prone to multiple morbidities, they are at higher risk of polypharmacy and therefore may present with higher risk of non-adherence to medications compared to the younger population. Medication non-adherence lowers the effectiveness of treatments and raise medical costs. Non-adherence to prescribed medications is extremely important to ensure the efficacy of medical treatment regimens and more positive health outcomes. Poor medication adherence is relatively common. Studies have consistently shown that 20-30% of medication prescriptions are never filled and that, on average, 50% of medications for chronic disease are not taken as prescribed by their providers (Amarenco & Lebreuche, 2009). Measuring medication non-adherence is challenging because non-adherence is an individual patient behavior (Boroen & Bussell, 2011). Non-adherence to medication can occur in many or different ways, such as not filling the prescription, not taking medication at all, missing doses, taking the wrong amount, taking medication at the wrong time of the day, not taking it as prescribed (with or without food), purposefully discontinuing it for a period of time, or stopping

it altogether (Van der Wal & Jaarrsma, 2008; Ramanath & Balaji, 2010). An older patient is defined as a person who is aged 65 years and above (Saleem & Hassali, 2012). Medication non-adherence is the multifaceted problem responsible for increasing the important medical and public health issue like worsened therapeutic outcome, higher hospitalization rates, and increased health care costs (Ramanath & Balaji, 2010). It is common for older patient to be treated for different health condition simultaneously and this can result in a complex medication regimen. Many factors may influence medication compliance in elderly population, including unclear instructions, inadequate patient educations, lack of patient involvement in the treatment plan, medication cost, side effects and the complexity of the dosing regimen.

In medication, non-adherence to treatment regimen matters a lot most especially with the older citizens and most at times it is challenging to observe that a greater percentage of elderly people do not adhere to treatment which might be as a result of cost of continuing the treatment, and sometimes they do not adhere because the severity of the sickness has been reduced, and some could be that they cannot follow the instructions (might have forgotten or illiterate ones that cannot read or write).

Medication non-adherence has important health consequences, ranging from decreased quality of life and poor managed symptoms to death. But the implications of medication extend beyond the individual.

Many studies have shown that most of the elderly people do not take their medications at the right time or in the right amount because of complicating factors such as the number of medications prescribed and the number of providers seen for multiple health problems, as well as other physical and cognitive challenges the elderly face. Lack of knowledge of their illnesses and the role medication play in their long-term management can lead to intentional medication non-adherence. Strong evidence shows that elderly patients with chronic illnesses have difficulty in adhering to their recommended medication regimen. Based on the background, this presentation investigates the factors contributing to non-adherence to treatment regimen among senior citizens in Wiiyaakra community in Khana Local Government Area of Rivers State.

## 2.0 Methodology

This study adopted descriptive research design which allows for collection of large and small samples from a population, examine distribution incidence and interactions of phenomena. This study was conducted on a sample of 100 elderly citizens randomly selected from the community within the age bracket of 65 years and above; out of which, 57% was male adults while female constituted 43%.

### 3.0 Results and Discussion of Findings

On the issue of knowledge of the disease and the medication, about 77% said they had no knowledge while only 23% were knowledgeable of the disease and the drugs given to them. Issue of memory loss was also identified as a major challenge to adult citizens when it comes to adherence to treatment regimen. About 97% confessed that they do forget to take their drugs and keep to the regimen prescribed for them by healthcare givers. Also, 86% confessed that the number of tablets or dosage was too much for their liking; that they were made to take 4 and above number of tablets at once. Others (82%) attributed their non-adherence to lack of finance to sustain the burden of the treatment regimen.

Several other factors contributed to non-adherence of treatment regimen by the elderly. Non-adherence to therapy is a public health concern in general with special focus on the elderly population. Non-adherence causes the patient outcome to be compromised, resulting in decreased effective disease control, increased risk of hospitalization and increased morbidity

and mortality (Intechopen, 2017). As clearly stated by WHO (2011), there are five large sets of factors that contribute to non-adherence to treatment. They include, socio-economic factors, health system related factors, therapy related factors, patient related factors and condition related factors.

### **Socio-Economic Factors**

A variety of social, economic and cultural factors can contribute to non-adherence to treatment regimen. These include:

- Low socio-economic status
- Variation in the cultural background of provider and patient.
- Lack of sensitivity to the patient's cultural orientation towards mental illness and the systems of belief (in the culture) regarding medication.
- Cost concerns for a refill of medications for patients from lower social-economic status resulting in a higher rate of not following prescription (Kennedy, 2008).
- Cost of treatment: high expenditure on medicines.
- Socio-economic variables: lack of social support.

People who have social support from family, friends. Or caregivers to assist with medication regimens have better adherence to treatment whereas unstable living environments, limited access to health care, lack of financial resources, cost of medical services and burdensome work schedules have all been associated with decreased adherence rate (Keeffe, 2011).

# Health System Related to Non-adherence of Treatment Regimen

Patient-Doctor Interaction could constitute major setback in elderly patients' adherence to treatment regimen. Lack of trust: comes into play when the health giver (Doctor) has not been able to win the heart of the client/patient. There are certain things the doctor will do or certain character the doctor or health worker will demonstrate that will bring about lack of trust. For instance, not being polite and not keeper to manners may hinder the patient from opening up and relating freely health issues. Also, poor communication between patients and health care providers can trigger discouragement and consequently, lead to non-adherence.

Furthermore, lack or poor level of education on the part of the patient is another factor that can affect adherence to treatment regimen. Patients that are not knowledgeable about the disease or ailment and the need for the treatment regimen, may abuse the process or complete non-adherence to the treatment regimen as may be prescribed by the health service provider or healthcare worker. To compound the problem the more, lack of clear cut instruction on how and when to take the drugs by the healthcare professional can hinder or affect negatively, the patients' adherence. Instructions on the dosage and time in-between should be simplified, clear and void of ambiguity as much as possible. The patients are expected to be educated on the need for the medication in the manner and language best understood by the patient for the regimen to be effectively followed.

Finally, the doctor-patient relationship is one of the most important health care systemrelated factors impacting on the adherence. A good relationship between the patient and health care provider will definitely have a positive impact on adherence. However, poor relationship, poor or lack of communication regarding the benefits, instructions for use, and side effects of medications can greatly contribute to non-adherence especially by the elderly with memory problems.

## Therapy Related Issues to Non-adherence of Treatment Regimen

The duration and complexity of treatment regimens which include the number of medications and the number of daily dose required may have consequences on treatment regimen

adherence. This is because, the longer and difficult the regimen, the greater the likelihood of discontinuation. Thus, it is necessary to develop simpler schemes, which require small changes in living habits as opposed to prolonged and complicated treatment regimens. Furthermore, side effects of some medications such as nausea, vomiting, fatigue and other metabolic changes as well as drug-to-drug interactions or adverse reactions to medications may also lead to treatment withdrawal (Grazia D'onfrio, 2017).

## Patients' Related Issues to Non-adherence to Treatment Regimen

Physical impairments and cognitive limitations may increase the risk for non-adherence in senior citizens. Lack of knowledge about the disease and the reasons for the medication, lack of motivation; low self-esteem and substance abuse are associated with non-adherence to treatment regimen (Giardini, 2017). It is therefore necessarily to focus on health literacy- which involves an individual having the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.

### Conclusion

Non-adherence is a major barrier to improved health outcomes from many chronic and acute medical conditions. Factors contributing to non-adherence include; cost of treatment, lack of social support, poor communication, lack of patient education, lack of professional conduct on the part of health workers at times. Non-adherence reduces the potential effect of drugs thereby bring about frequent visit to the health facilities. This in turn has negative social impact in the community and remedial intervention to address relapse. Findings show that non-adherence to treatment regime among senior citizens affects parents, families, and communities, through increased risk of death and other negative consequences. It is needful for Nigerian Government to improve and make affordable health services for the elderly. Healthcare service providers should improve their communication and professional conducts in dealing with elderly citizens. Empathy, patience, and understanding is required on the part of health service providers. Instructions should be given in simple, clear and plane terms to elderly patients. Elderly patients should be encouraged to keep to the treatment regimen.

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