Short Research Article

A Pilot Study Evaluating Medication Adherence in Geriatric Patients with Chronic Conditions

ABSTRACT:

Introduction: More established grown-ups are more inclined to ongoing circumstances and intermittent ailment like hypertension, diabetes mellitus, respiratory messes and so on which might require persistent prescription with different medications. Unfortunate consistency in this age bunch represents medicine wastage with the inflated cost of medical care and significant deterioration of the sickness with disability of death. A large portion of the human and financial expenses related to non-adherence can be tried not by further developing prescription adherence. Typically, geriatric patients have different co-morbidities, which can antagonistically influence drug consistence. Our review recognizes different reasons liable for low adherence.

Aim: To assess the level of medication compliance in the geriatric patients with chronic conditions and also analyze the reason behind the non-adherence.

Materials and methods: The study subjects were assessed by using 8 structured questionnaires as per modified morisky medication adherence scale(MMAS).

Results: A total of 88 subjects of geriatric patients with chronic conditions were assessed for the level of compliance for long term medications. The compliance level was assessed by interviewing patients with 8 item structured questionnaires as per Mmodified Mmorisky Mmedication Aadherence Sscale (MMAS).The level of compliance was high in 34 and moderate in 39 and low in 15 of the study subjects.

Conclusion: To further develop drug adherence it is fundamental to recognize the purposes for the non-adherence like confounded systems, obliviousness about the sickness and inconveniences, physical and financial problems, forgetfulness, accessibility issues and absence of section of land providers and so on. Geriatric patients particularly tend to quit taking drugs by their own this can make it hard to anticipate improvement in the adherence. So, medication consistency is a vital element which increments helpful result.

KEY WORDS: Chronic illness, Geriatrics, Medication adherence, Factor influencing, Poor compliance.

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INTODUCTION:

The elderly has turned into the fundamental survivors of persistent sicknesses-, in light of the fact that they will generally experience the ill effects of multimorbidity which is characterized as people with at least two coinciding ongoing circumstances. Generally, the treatment of multimorbidity needs the drawn out taking different medicine and this drug intricacy might prompt unfortunate adherence which can decrease the adequacy of treatment and cause extra monetary misfortunes . WHO pronounced the explanation in its 2003 report taking drugs adherence that "expanding the ineffectualness of adherence mediations might greatly affect the wellbeing of the populace than any improvement in unambiguous clinical medicines. “Specialists have found that social help might be a successful defensive element of the more seasoned grown-up's medicine adherence both for purposeful and inadvertent nonadherence[1]. Adherence to therapy, a general medical problem, is of explicit significance in persistent sickness therapies. Prescription non-adherence is a typical and imperative general medical condition, explicitly among the geriatric individuals[2]. The personal satisfaction and the wellbeing related personal satisfaction of patients with ongoing sicknesses are fundamentally reduced[3,4]. aA great many pharmacological treatments are right now accessible to draw out the existence of persistently sick people and to limit infection entanglements and incapacities. Since patients' adherence to both drug and suppliers' proposals expands the advantages of treatments, unfortunate adherence compromises the adequacy of regimens[5]. Non-adherence and abuse of meds might bring about bothersome results, for example, absence of medication viability, crisis visits, hospitalizations, inferior quality of life, or expanded medical services costs[6-8]. Understanding the hidden justification for non-adherence is fundamental to further develop prescription adherence]Many variables, for example, patient-related factors, condition-related factors, treatment related factors, medical services supplier factors, framework based factors, and financial elements, impact medicine adherence[9,10]. Taking drugs is a significant part of fitting medicine use. Patients with ongoing sicknesses frequently attempt various drug systems to deal with their circumstances, forestall entanglements and to keep up with their personal satisfaction. Numerous patients with ongoing sickness conditions are old and may battle in adhering to prescription directions, for example, taking the recommended measurements and following the organization plan. A patient's medicine information has been characterized as the familiarity with the medication name, reason, organization plan, unfavorable impacts or incidental effects, or extraordinary organization guidelines[11,12]. Patients who need to take numerous prescriptions are typically lacking in medicine information particularly the older[13]. Unfortunate medicine information can adversely affect drug adherence which might bring about expanded utilization of clinical assets, for example, doctor visits, lab tests, superfluous medicines, crisis division visits, clinic affirmations and treatment disappointment [14]. Unfortunate prescription information can likewise prompt drug wastage. Patient-related factors prompting unused and disposed of medicine stays obscure, but there are tremendous expense suggestions. We asses patients’ medication knowledge and also assessed factors affecting their knowledge.

2.MATERIALS AND METHODS:

*2.1.**Study Type***

This was a Prospective observational study. All the patients who met the inclusion criteria were taken as study population.

2.2.**Study Site**

This study was done in a Tertiary care hospital, Virudhunagar, India

*2.3.**Study Population***

The study population for this study was Elderly patients (aged 50 years and above) with chronic illnesses attending the outpatient department of geriatrics. The inclusion and exclusion criteria were as follows:

2.3.1.Inclusion Criteria

- Geriatric patients aged 50 years or older.
- Diagnosed with chronic illnesses.
- Receiving treatment in the outpatient department.

2.3.2.Exclusion Criteria

- Patients admitted to the inpatient ward.
- Patients with mental illnesses.

2.4.Sample Size

A total of **88 patients** were included in the study.

Data Collection

- **Method**: Data was collected using a structured, 8-item questionnaire based on the **Modified Morisky Medication Adherence Scale (MMAS)**.
- **Procedure**: Patients were categorized into three adherence levels: low, moderate, and high, based on their responses.
- **Consent**: Written informed consent was obtained from all participants after explaining the study's purpose and procedures.

Data Entry and Analysis

- **Data Entry**: Data was manually entered into a Mirosoft excel worksheet for analysis. The proposal for project work was approved by the Department of Pharmacy Practice, ARULMIGU KALASALINGAM COLLEGE OF PHARMACY. After that approval was taken from hospital were data was collected.

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Feasibility of the Study (Pilot Study)

- A Pilot study was carried out for two months and necessary changes were made accordingly. It provides a foundational understanding of medication adherence patterns in elderly patients with chronic illnesses.

RESULTS:

The demographic data collected was analyzed by using descriptive statistics. Significance of the associations of different parameters was evaluated by ANOVA methods.

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FIGURE 1 NUMBER OF SUBJECTS BASED ON AGE:

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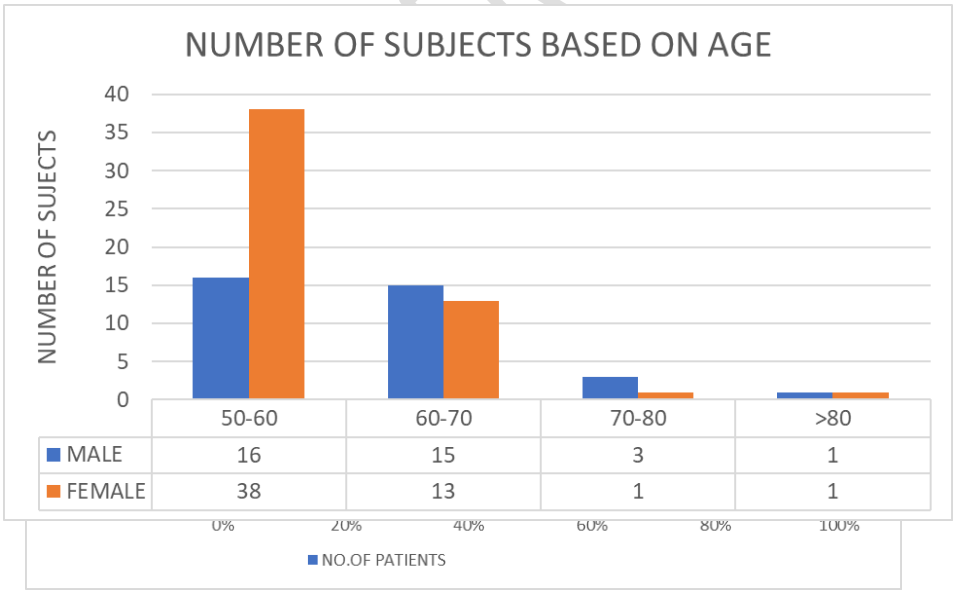

FIGURE 2 NUMBER OF SUBJECTS BASED ON DISEASE:

FIGURE 3 NUMBER OF NON-ADHERENT PATIENTS BASED ON REASONS:

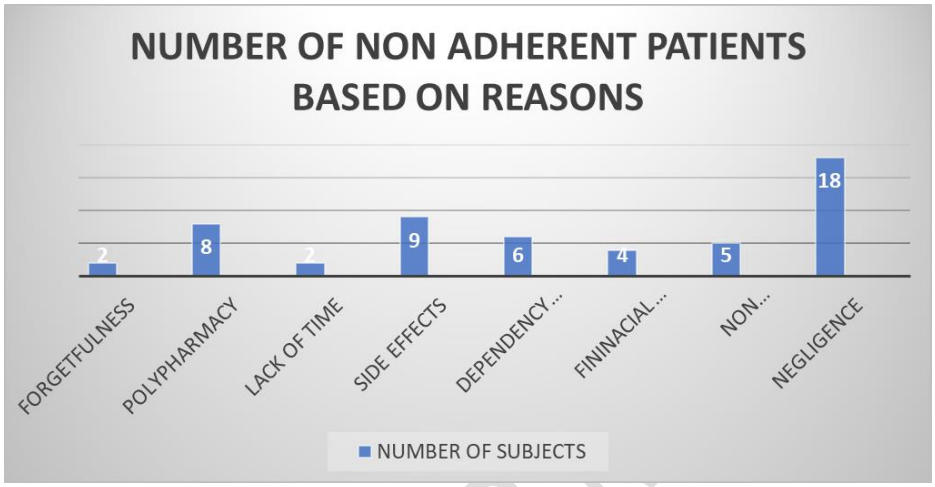

FIGURE 4 NUMBER OF SUBJECTS AFFECTED BASED ON GENDER

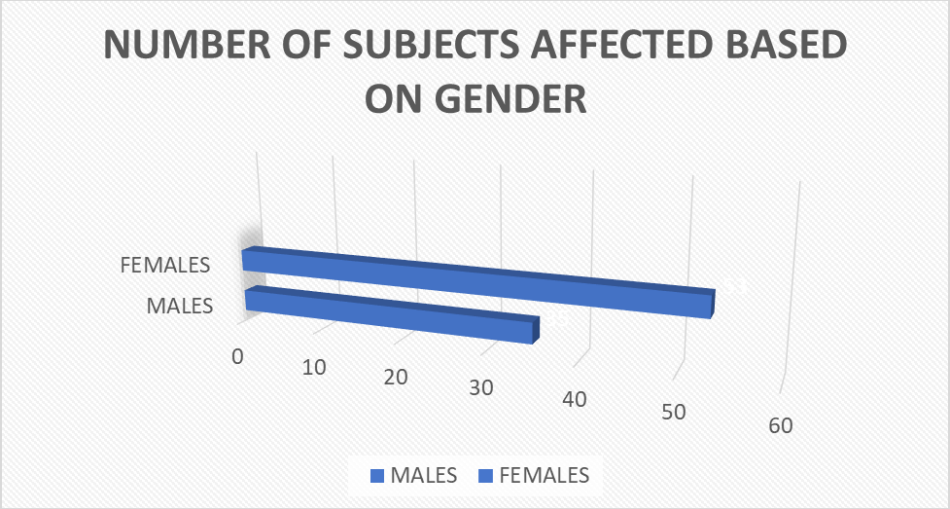

FIGURE 5 MEDICATION ADHERENCE LEVEL BASED ON MMAS SCORE:

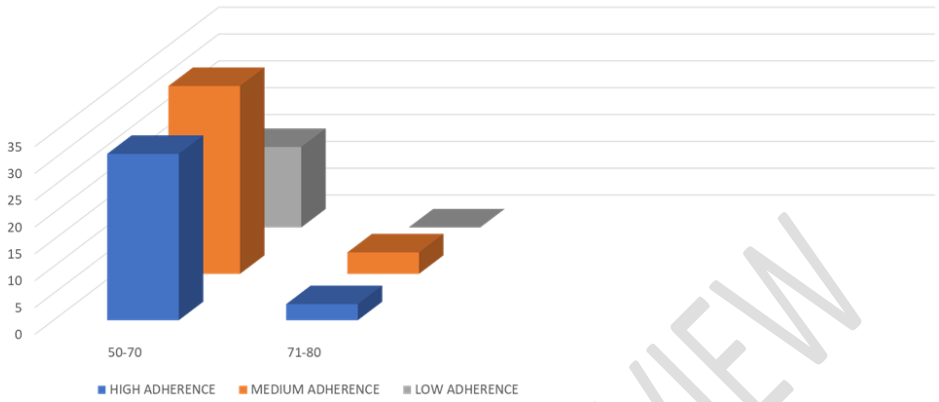

FIGURE 6 ASSESMENT OF MEDICATION ADHERENCE BASED ON AGE:

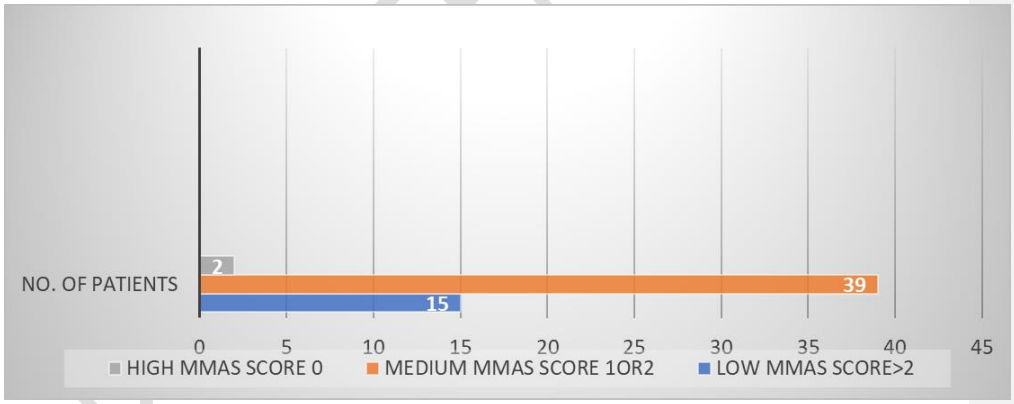

FIGURE 7 ASSESMENT OF MEDICATION ADHERENCE BASED ON GENDER

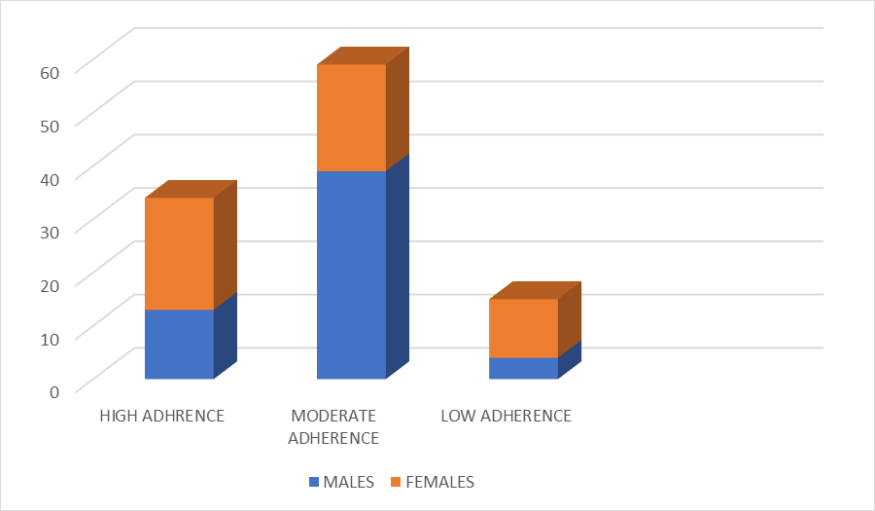

TABLE 1 OVERALL NUMBER OF GERIATRIC PATIENTS WITH CHRONIC ILLNESSES

CATEGORY	SUB CATEGORY	TOTAL	MALES	FEMALES
Gender		88	35(40%)	53(60%)

Age Group (Years)	50-60	54	16	38
	61-70	28	15	13
	71-80	4	3	1
	Above 80	2	1	1

In this current study, 88 geriatric patients with chronic illnesses were evaluated for their level of adherence to long-term drugs, and the many factors affecting adherence to medication were examined. Out of 88, males were 35 (40%) and females were 53 (60%).In the age group of 50-60 years -54 people, followed by 61-70 years -28 people, followed by 71-80 years -4 people and above 80 years -2 people were assessed. Out of 88 people,50-60 years has males-16 & females-38,61-70 years has males-15 & females-13,71-80 years has males-3 & female-1 and above 80 years has male-1& female-1.Out of 88 people, hypertension-14 people, diabetes mellitus-18 people,asthma-4 people,COPD-3 people,psoriasis-1 person,dermatophytosis-10 people,osteoarthritis-28 people and others-10 people. In each disorder, males and females were hypertension:males-6 ,females-8 ,diabetes mellitus:males-11,females-7,asthma:males-1,females-4,COPD:males-1,females-2,psoriasis:males-1,females-0,dermatophytosis:males-6,females-4,osteoarthritis:males-9.females-19 and other:males-4,females-6.

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DISCUSSION:

In the present study 88 subjects of geriatric age group with chronic illness were assessed for the level of compliance for multiple co-morbidities and also various reasons influencing medication compliance were analyzed level of compliance was high in 34 subjects, moderate in 39 subjects and low in 15 subjects. Good compliance was observed in 50-70 year old was 31 and 71-80 was 3.Medium compliance was observed in 50-70 years old was 35 and 71-80 years old was 35 and 71-80 year old was 4.Low compliance was observed in 50-70 year old was 15 and 71-80 year old was 0.

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These observations suggest that the compliance level has decreased progressively with increasing age. It says that the age may be an important reason to affect medication compliance. The missing of medications was mainly attributed to polypharmacy, financial constraints, forgetfulness, lack of time, dependency of care taker, on-availability of medications, and negligence this negligence was reason for high level of non-adherence. The patient's compliance can be improved by reducing the above reasons by giving pill box, medication ~~calender~~calendar, simplifying the regime, avoiding the trouble giving adverse events and giving proper motivation of the patients and giving patient counselling about medications and illness. Measuring adherence and patient compliance is quite difficult and is patient dependent most of the time. Medication adherence is difficult in treating chronic diseases and non-adherence among elderly patients is a major issue on health care providers[15-18].

In age 50-60, 16 males and 38 females , in age 61-70,15 males and 13 females , in age 71-80,3 males and 1 female and above 80,1 male and 1 female were affected.

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About 38 males and 50 females participated in the study in tertiary care hospital. Among this 4 males and 11 females had low adherence. Then 10 males and 10 females had moderate adherence and then 13 males and 21 females had high adherence.

For Low adherence females were high, for moderate adherence males were high and for high adherence females were high. However, in general, the effect of gender on the rate of adherence to medication in

other studies is contradictory. Some researcher found that female patients have better adherence than male patients. While other studies could not find a relationship between gender and adherence to medication[19,20].

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CONCLUSION:

This study affirms the presence of unfortunate compliance to the recommended medicine among geriatric subjects with ongoing infections. There are variations in the degree of consistency (poor/moderate/great compliance). Due to the contrast in the review strategies. Adherence to prescription is significant in guaranteeing that restorative advantages are conveyed to patients. However, adherence to drugs has forever been an issue for older. It is critical to keep the patients, Medications medical care providers, healthcare framework, and financial variables as a primary concern. So, we had the option to think of reasonable and individualized answers to defeat these issues[21]. There ~~are portion~~are portion of the systems to further develop adherence on the grounds that many variables that related to drug adherence and related well-being in more established adults[22].

Statement of informed consent

Informed consent was obtained from all the individual participants included in the study.

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