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Research Article

A STUDY ON THE LEVEL OF DRUG COMPLIANCE AMONG THE OUTPATIENTS WHO ARE ON A LONG-TERM DRUG THERAPY IN A TERTIARY CARE TEACHING HOSPITAL AT KANCHEEPURAM DISTRICT IN TAMILNADU

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ABSTRACT

Objectives: To evaluate the drug compliance level among the patients attending the outpatient department of Shri Sathya Sai Medical College Hospital using Morisky 8-item drug compliance questionnaire and to determine the factors which hinder them from adhering to physician's prescription.

Methods: 100 patients who were on long-term drug treatment on outpatient basis were selected. Following that, Morisky 8-item drug compliance questionnaire, a self-reported scale of medication adherence was used. Along with the mentioned questions, a few questions to assess factors causing noncompliancy and their knowledge on drug compliance were included. Data were collected and based on the scale, the level of compliance, i.e., low, medium or high was estimated. Patients found noncompliant, factors hindering them from being noncompliant were assessed.

Results: Among the 100 patients, 33% belonged to low adherence group, 44% to medium adherence group, and 23% to high adherence group. Patients belonging to low and medium adherence group were segregated and their individual questionnaire was assessed and reason for being noncompliant analyzed. The majority of the low adherence group said that they discontinue treatment once they feel that their symptoms were under control.

Conclusion: Drug noncompliance is an important factor for treatment failure. The importance of medication adherence was re-emphasized to those patients who belonged to low/medium adherence group.

Keywords: Morisky, Drug compliance, Shri Sathya Sai, Low adherence.

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INTRODUCTION

The term compliance describes the extent to which a person's behavior coincides with medical advice. In drug therapy, compliance is defined as the degree of correspondence of the actual dosing history with the prescribed drug regimen [1].

Drug noncompliance is a growing concern to clinicians and health-care systems. Adherence rates are typically higher among patients with acute conditions, as compared with those with chronic conditions; persistence among patients with chronic conditions is disappointingly low, dropping most dramatically after the first 6 months of therapy [2-4].

Especially, the consequences of drug noncompliance may be serious in older patients. Some older patients who are acutely ill may take more than the prescribed dose of a medication in the mistaken belief that more of the drug will speed their recovery. Such overuse has clearly been associated with adverse drug effects. The use of at least three drugs, and often more, is common in the elderly, with estimates of as many as 25% of older people taking at least three drugs [5].

Numerous factors such as the duration of therapy, the complexity of the prescribed drug regimen and many psychosocial factors, alone or in combination, may contribute to variable compliance with drug therapy [6-7].

Hence, this study focussed on assessing the level of compliance to physician's prescription and the factors which hinder them from adhering to the prescription.

AIMS AND OBJECTIVES

To evaluate the drug compliance level among the patients attending the outpatient department (OPD) of Shri Sathya Sai Medical College Hospital using Morisky 8-item drug compliance questionnaire and to determine the factors which hinder them from adhering to physician's prescription.

METHODS

This study was carried out in Shri Sathya Sai medical college hospital and research institute after getting approval from the Institutional Ethical Committee.

100 patients who were on long-term drug treatment on outpatient basis were selected.

Selection criteria

Inclusion criteria

Any adult patient attending the Medicine OPD of Shri Sathya Sai Medical College Hospital on a long-term treatment for chronic illness.

Exclusion criteria

Inpatients and patients treated for acute illness were excluded from the study.

Following that, Morisky 8-item drug compliance questionnaire, a self-reported scale of medication adherence was used. All the questionnaire details were translated in the regional language. Data were collected,

and based on the scale, the level of compliance, i.e., low, medium or high was estimated. Patients found noncompliant, factors hindering them from being noncompliant were assessed. Descriptive statistics were applied for the study.

RESULTS

Morisky 8-Item Medication Adherence Questionnaire

Question	Patient Answer (Yes/No)	Score Y=1; N=0
Do you sometimes forget to take your medicine?		
People sometimes miss taking their medicines for reasons other than forgetting. Thinking over the past 2 weeks, were there any days when you did not take your medicine?		
Have you ever cut back or stopped taking your medicine without telling your doctor because you felt worse when you took it?		
When you travel or leave home, do you sometimes forget to bring along your medicine?		
Did you take all your medicines yesterday?		
When you feel like your symptoms are under control, do you sometimes stop taking your medicine?		
Taking medicine every day is a real inconvenience for some people. Do you ever feel hassled about sticking to your treatment plan?		
How often do you have difficulty remembering to take all your medicine? __ A. Never/rarely __ B. Once in a while __ C. Sometimes __ D. Usually __ E. All the time		A = 0; B-E = 1
	Total score	

Scores: >2 = low adherence
1 or 2 = medium adherence
0 = high adherence
Morisky DE, Green LW, Levine DM. Concurrent and predictive validity of a self-reported measure of medication adherence. Med Care. 1986;24:67-74.

Fig. 1: Morisky 8-items medication adherence questionnaire

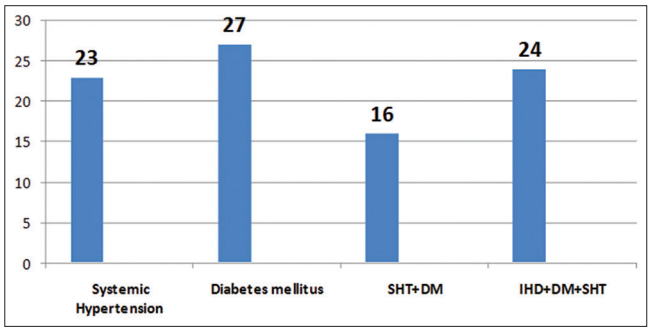

Fig. 2: Number of patients with the diseases

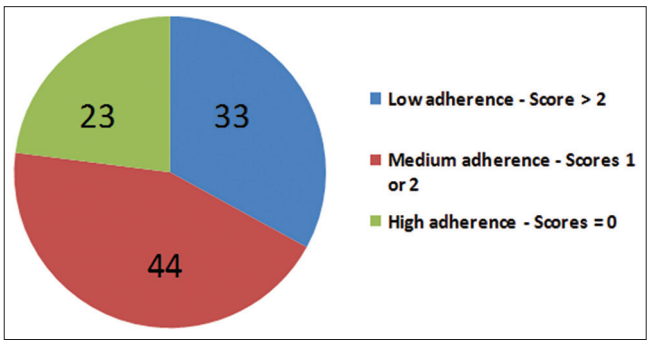

Fig.3: Based on Morisky questionnaire

- Of the 33 patients belonging to the low adherence group, all the patients said they sometimes forget to take the medicines.
- 8 of the 33 patients said that they stop taking the medicines once they felt that their symptoms were under control.
- 12 of the 33 patients said that they feel hassled about sticking to their treatment plan.
- Of the 44 patients who belong to the medium adherence group, all of them said that they sometimes forget to take their medicines. Moreover, 7 of them said that once they feel their symptoms are under control they stop taking the drugs.

DISCUSSION

This study was carried out in a tertiary care teaching hospital.

In a study by Jackevicius *et al*. on elderly patients on statin therapy, adherence rates were typically higher among patients with acute conditions, as compared with those with chronic conditions; persistence among patients with chronic conditions was disappointingly low, dropping most dramatically after the first 6 months of therapy [2-4].

In responses to a questionnaire study by Cramer, typical reasons cited by patients for not taking their medications included forgetfulness (30%), other priorities (16%), decision to omit doses (11%), lack of information (9%), and emotional factors (7%); 27% of the respondents did not provide a reason for poor adherence to a regimen [8].

Physicians contribute to patients' poor adherence by prescribing complex regimens, failing to explain the benefits and side effects of a medication adequately, not giving consideration to the patient's lifestyle or the cost of the medications, and having poor therapeutic relationships with their patients [9-12].

In a study by Venkateswararao *et al*., which included 60 chronic renal failure patients on hemodialysis with an objective to evaluate the degree of adherence, perception toward various treatment recommendations and the effect of pharmacist's intervention in improving compliance among patients on hemodialysis, the Common reason cited by study subjects for noncompliance to medications was forgetfulness [13].

In a study by Ai Sim Wee *et al*., a total of 51 rheumatoid arthritis (RA) patients using DMARD were recruited and a researcher-assisted questionnaires were utilized to assess the adherence using compliance questionnaire on rheumatology and found that the necessity-concerns differential of medication beliefs may serve as a possible screening tool for nonadherence or target for adherence-improving intervention among RA patients [14].

In our study, we had 77% of the patients said that they sometimes forget to take their medicines. Common barriers to adherence are under the patient's control so that attention to them is a necessary and important step in improving adherence.

The concerned treating physicians were informed regarding the noncompliancy of drugs. Methods that can be used to improve adherence can be grouped into three general categories: Patient education, improved dosing schedules, and improved communication between physicians and patients.

CONCLUSION

Various considerations have to be taken while prescribing regimens for better drug compliance from the patient side. This study was carried out in a rural set up, of which 33% low adherence was noted. The importance of taking drugs regularly has to be re-emphasized for the benefit of the patient. A study in a huge sample size would be required in future for better assessment.

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