

Original research article

Barriers in achieving therapeutic goals and solutions for it – a prospective study

¹DR.KIRAN.D.R. , ²DR. K.GANESA MOORTHY*, ³DR.V.USHA PADMINI , ⁴DR. DR .T.RAVI KUMAR

¹ASSOCIATE PROFESSOR OF GENERAL MEDICINE, KARUNA MEDICAL COLLEGE, CHITTUR, PALAKKAD, KERALA.

²ASSOCIATE PROFESSOR OF GENERAL MEDICINE, GOVERNMENT MEDICAL COLLEGE AND ESI HOSPITAL, COIMBATORE.

³ASSOCIATE PROFESSOR OF GENERAL MEDICINE, GOVERNMENT MEDICAL COLLEGE AND ESI HOSPITAL, COIMBATORE.

⁴PROFESSOR AND HOD OF GENERAL MEDICINE, GOVERNMENT MEDICAL COLLEGE AND ESI HOSPITAL, COIMBATORE.

CORRESPONDING AUTHOR*

ABSTRACT:

INTRODUCTION: Patients have the right to take or not take medication that was prescribed. But, sometimes by not doing so, they are putting their health at risk.

AIM; In order to analyze the problems in defaulters, and to improve the compliance we have undertaken this study

MATERIALS AND METHODS; From Jan 2019 to March 2019. All the patients attended medicine op in three medical colleges (n=13232) were included in the study and all the defaulters were selected (n= 434) 3.2%

RESULTS AND CONCLUSION: Defaulters are more common in chronic diseases than acute. Regular visit to hospital requires good doctor- patient relationship, financial constraints are more common in below poverty line patients in rural areas to visit hospitals or refill the speciality drugs. Young and employed persons have time challenge in collecting the drugs from tertiary care hospitals during duty hours..If the drugs are made available 24 hours by automatic dispensers at all tertiary care hospitals this can be easily solved .Availability of specialty drugs at primary health center levels also can solve these issues.

KEY WORDS: therapeutic goals, defaulters, chronic ,acute illness, awareness

INTRODUCTION :

Forgetfulness, Too busy, Sickness, co morbidities- like amputation of legs, or ulcer in diabetic foot, acute myocardial infarction, cerebro vascular accidents , neuropathy ,renal events ,retinopathy admission in hospital – in diabetes and hypertension .No person to accompany to hospital /dispensary/PHC , Bus/travel facilities not available ,crowd in public transports during peak hours, Fear of injection pain, mainly in acute conditions, No money for consultation Or review ,No money for refill at correct time ,Skipped meal hence tablets not taken, Allergy and gastritis like problems ,Communication issues between doctor and patients, Doubts regarding dosage , Need help for remembering to take tablets at right time, Carelessness of taking pills, self neglect ,Felt better hence stopped Feels worst after taking drugs, Away from home, Drugs /brand not available ,Too many pills, To avoid side effects, Thought drug was harmful, also Taking alternative medicines, Slept during the time ,Had problems taking at proper time, Cost of the drug ,Non employment, Family issues ,Other reasons Don't know how to take after a missed dose, Lost /Missing prescription ,Depression, Went to alternate medicine ,

sidha, ayurveda, unani , homeopathy ,native ,home remedy treatments, touch therapy,. acu puncture, acu pressure, Information inadequate ,No one explained the mechanism of drugs and importance .

Lack of time for physician to identify the real cause at the earliest is the real culprit in this study. To break the ice and bring out the real cause is not easy in any outpatient clinics of government tertiary care hospital setup.It requires sympathy and empathy and counselors and family members to sit and chart out the issues. Many times the non availability of drugs, and inability to buy at right time are two main causes. cost factor, non employment, waiting time in hospitals, and hospital op timings, is not suitable for it.

MATERIALS AND METHODS:

From Jan 2019 to March 2019. All the patients attended medicine op in three medical colleges (n=13232) were included in the study and all the defaulters were selected (n= 434) 3.2%

DEMOGRAPHIC DETAILS

Characteristics	Category	Frequency
Age (years)	Below 20	61
	21-39	181
	40-59	288
	≥ 60	41
CHRONIC	HYPERTENSIVES	187
	DIABETIC	179
Body Mass Index (kg/m ²)	19-25	372
	>25	199
ACUTE	INFECTION	49
	FEVER	67
	ADD	42
	OTHERS	47
Daily Exercise	Yes	110
	No	460
Family Type	Nuclear	361
	Joint	210
Family Income in rupees P M	≤ 10,000	215
	>10,000	356
Other Health Problems	Yes	36
DEFAULTER S among study population	571	

REASON	Number of cases (n)	Percentage
	571	100%
Forgetfulness, Too busy	71	35 %
Sickness, co morbidities-	94	13 %
No person to accompany to hospital	79	9 %
travel facilities not available	81	9 %
No money for refill	227	8 %
Fear of injection pain	73	7 %
Allergy and gastritis like problems	920	6 %
Failed Induction	611	4 %
Placenta previa/abruption placenta	617	4 %
Bad obstetric history	311	2 %
(BOH)/treated for infertility Premature rupture of membrane	301	2 %
On request	153	1 %

RESULTS:

Patients have the right to take or not take medication that was prescribed. But, sometimes by not doing so, they are putting their health at risk. ... In exploring reasons patients often don't take their medications, many of these are due to misconceptions, lack of clarity or other factors that may be easily corrected. Therapeutic goal achievement is not possible without the full co operation of patients. Patient-doctor- relationships are very much important for compliance . In order to analyze the problems in defaulters, and to improve the compliance we have undertaken this study to find out the barriers which prevent them to take the drugs in proper time. this has opened new avenues of understanding in resource limited countries like India Defaulters were identified, ; Defaulters are more common in chronic diseases than acute. Regular visit to hospital requires good doctor- patient relationship, financial constraints are more common in below poverty line patients in rural areas to visit hospitals or refill the drugs. Young and employed persons have time challenge in collecting the drugs from tertiary care hospitals during duty hours..If the drugs are made available 24 hours by automatic dispensers at all tertiary care hospitals this can be easily solved .Availability of specialty drugs at primary health center levels also can solve these issues.

DISCUSSION:

The ultimate aim of any prescribed medical therapy is to achieve certain desired outcomes in the patients concerned. These desired outcomes are part and parcel of the objectives in the management of the diseases or conditions. However, despite all the best intention and efforts on the part of the healthcare professionals, those outcomes might not be achievable if the patients are non-compliant. This shortfall may also have serious and detrimental effects from the perspective of disease management. Hence, therapeutic compliance has been a topic of clinical concern since the 1970s due to the widespread nature of non-compliance with therapy. Therapeutic

compliance not only includes patient compliance with medication but also with diet, exercise, or life style changes. In order to evaluate the possible impact of therapeutic non-compliance on clinical outcomes.

It was estimated that the compliance rate of long-term medication therapies was between 40% and 50%. The rate of compliance for short-term therapy was much higher at between 70% and 80%, while the compliance with lifestyle changes was the lowest at 20%–30%. Furthermore, the rates of non-compliance with different types of treatment also differ greatly. Estimates showed that almost 50% of the prescription drugs for the prevention of bronchial asthma were not taken as prescribed. Patients' compliance with medication therapy for hypertension was reported to vary between 50% and 70%.

In hypertensive patients, poor compliance with therapy is the most important reason for poorly controlled blood pressure, thus increasing the risk of stroke, myocardial infarction, and renal impairment markedly. Data from the third NHANES (the National Health and Nutrition Examination Survey), which provides periodic information on the health of the US population, showed that blood pressure was controlled in only 31% of the hypertension patients between 1999 and 2000. In a study in India it is only 8% of hypertensive keep their blood pressures under control. It is likely that non-compliance with treatment contributed to this lack of blood pressure control among the general population. For therapeutic non-compliance in infectious diseases, the consequences can include not only the direct impact such as treatment failures, but also indirect impact or negative externalities as well via the development of resistant microorganisms. In addition, it has been shown that almost all patients who had poor compliance with drugs eventually dropped out of treatments completely, and therefore did not benefit at all from the treatment effects.

Besides undesirable impact on clinical outcomes, non-compliance would also cause an increased financial burden for society. For example, therapeutic non-compliance has been associated with excess urgent care visits, hospitalizations and higher treatment costs. It has been estimated that 25% of hospital admissions in Australia, and 33%–69% of medication-related hospital admissions in the USA were due to non-compliance with treatment regimens. Additionally, besides direct financial impact, therapeutic non-compliance would have indirect cost implications due to the loss of productivity, without even mentioning the substantial negative effect on patient's quality of life. Elderly patients may have problems in vision, hearing and memory. In addition, they may have more difficulties in following therapy instructions due to cognitive impairment or other physical difficulties, such as having problems in swallowing tablets, opening drug containers, handling small tablets, distinguishing colors or identifying markings on drugs.

On the contrary, older people might also have more concern about their health than younger patients, so that older patients' non-compliance is non-intentional in most cases. As a result, if they can get the necessary help from healthcare providers or family members, they may be more likely to be compliant with therapies.

Patients in these two age ranges (middle-aged patients and young patients under 40 years old) always have other priorities in their daily life. Due to their work and other commitments, they may not be able to attend to treatment or spend a long time waiting for clinic appointments.

Likewise, low compliance also occurs in adolescents and children with chronic disease; Very young children need more help from their parents or guardians to implement treatment. Therefore, their poorer compliance may be due to a lack of understanding or other factors relating to their parents or guardians. For adolescents, this period is often marked by rebellious behavior and disagreement with parents and authorities.

Patient's beliefs, motivation and negative attitude towards therapy were identified as factors to be included in this category misconceptions or erroneous beliefs held by patients would contribute to poor compliance. Patient's worries about the treatment, believing that the disease is uncontrollable and religious belief might add to the likelihood that they are not compliant to therapy. In a review to identify patient's barriers to asthma treatment compliance, it was suggested that if the patients were worried about diminishing effectiveness of medication over time, they were likely to have poor compliance with the therapy. In patients with chronic disease, the fear of dependence on the long-term medication might be a negative contributing factor to compliance This is sometimes augmented further by cultural beliefs. For example, some hypertension patients believed long-term use of "Western" or English allopathic medication was "harmful" especially to kidney , and they were more confident in herbal or natural remedies in reality they contain heavy metals . patients may think disease is God's will and uncontrollable; and as a consequence, they perceived less need for medication. Similarly, in, inbred fears and supernatural beliefs were reported to be two major factors affecting patients' compliance with treatment Patients who had low motivation to change behaviors or take medication are believed to have poor compliance In a study done in Malaysia, 85% of hypertension patients cited lack of motivation as the reason for dropping out of treatment patient-prescriber relationship is another strong factor which affects patients' compliance.

A healthy relationship is based on patients' trust in prescribers and empathy from the prescribers. Studies have found that compliance is good when doctors are emotionally supportive, giving reassurance or respect, and treating patients as an equal partner patients who were smoking or drinking were unlikely to be compliant to the therapy Medications with a convenient way of administration (eg, oral medication) are likely to make patients compliant. Studies in asthma patients compared compliance between oral and inhaled asthma medications, and found patients had better compliance with oral medication Likewise, difficulty in using inhalers contributes to non-compliance in patients with asthma . The rate of compliance decreased as the number of daily doses increased. This is illustrated by one study where compliance was assessed by pill counts and self-reports that showed that non-compliance increased with an increase in the frequency of prescribed dosing: 20% for once daily; 30% for twice daily; 60% for three times a day; and 70% for four times daily. Similarly, a meta-analysis found that there was a significant difference in compliance rate between patients taking antihypertensive medication once daily and twice daily (92.1% and 88.9%, respectively) Thus, simplifying the medication dosing frequency could improve compliance markedly . Acute illnesses are associated with higher compliance than chronic illnesses. In addition, longer duration of the disease may adversely affect compliance . Cost is a crucial issue in patient's compliance especially for patients with chronic disease as the treatment period could be life-long. Cost is a crucial issue in patient's compliance especially for patients with chronic disease as the treatment period could be life-long . The general findings from this study showed that patients who had emotional support and help from family members, friends or healthcare providers were more likely to be compliant to the treatment 571,4.3, 13232 The factors identified from the studies and reviews may be grouped into several categories, namely, patient-centered factors, therapy-related factors, healthcare system factors, social and economic factors, and disease factors.

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