ASSESSMENT OF DRUG COMPLIANCE AND TARGETED PHARMACIST INTERVENTIONS IN ACUTE ISCHEMIC STROKE PATIENTS

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FLOW OF WORK

Informed consent was taken from the patients to collect demographic information, health condition, medical history, medication history, appointment keeping, social history, present clinical condition and present medications list.

| Telephonic Interview | Hospital Follow-Up |

The Drug Compliance is measured using structured interview QUESTIONNAIRE(given scores to responses)

Based on scores identify Compliance n=?

Non-Compliance n=?

Identify Reasons for non-compliance

Differentiate Factors on Questionnaire

Steps to enhance Compliance

FOLLOW UP(4 weeks)

RE-ASSESS compliance

Compliant n=?

Perform Statistical Analysis using SPSS

ABSTRACT

Stroke is the second leading cause of mortality with 87% of them are ischemic in nature. Long-term compliance by patients with stroke medications is essential for improved patient outcome. Non-compliance to clinically prescribed regimen is the main reason for sub-optimal clinical outcomes. Interventions like patient education, follow-up interviews, reporting adverse drug reactions to physicians, counselling the patient on necessity of medication compliance, opting for a low-cost alternative by talking to Health care provider were useful in improving compliance. This study indicates that patient targeted care has an impact on the improvement of individual health outcomes.

INTRODUCTION

Annually, 80 million people suffers from stroke, out of them 5&½ million people die and 116 million years of healthy life was lost each year. WHO estimated that a stroke occurs every 2 seconds. The statistics of stroke are alarming in the sense that creates a need for long term drug compliance to stroke medications; to improve health outcomes and secondary prevention of stroke . Non-Compliance with treatment regimen is a deterrent and the reasons may vary from individuals
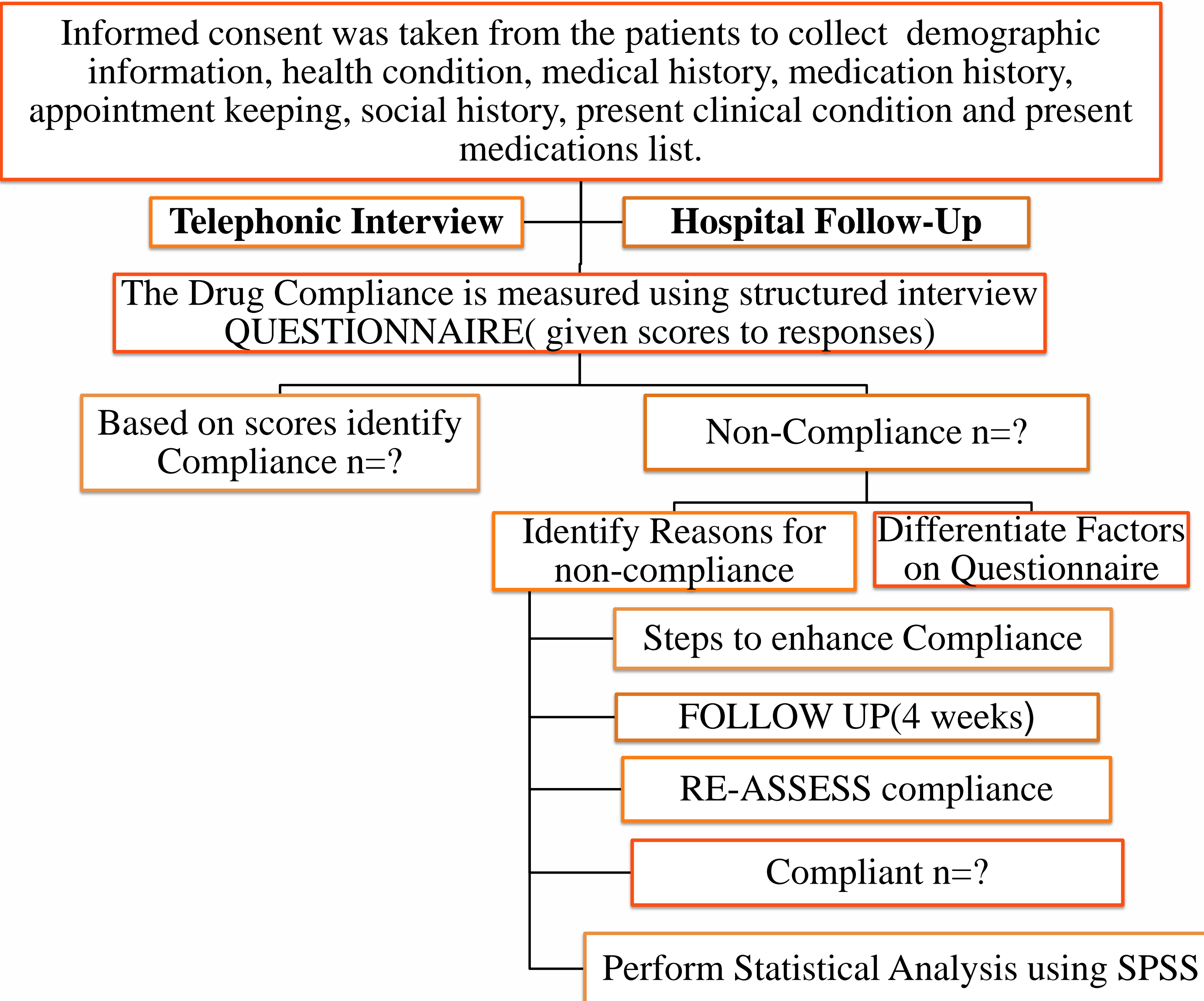
AIM

To Asses drug compliance and promote better health outcomes.

OBJECTIVE

Outline the factors responsible for non compliance and perform targeted interventions to improve drug compliance

INTERVENTIONS

The responses from structured interview were categorized into 4 factors that act as determinants of compliance, that may include factors related to Patient, Health care System, Therapy, Socio-Economic.

FACTORS	REASONS FOR NON COMPLIANCE	PERFORMED INTERVENTIONS
PATIENT-RELATED FACTORS	Age, Gender, Forgetfulness, Dis-beliefs Pertaining To Medication, Alternative Medication, Fear Of Dependence, Stopping Medications With Improvement In Symptoms	Interventions Aimed At Increasing Compliance Include Patient Education And Follow-up Interviews
THERAPY-RELATED FACTORS	Adverse Effects Of Treatment, Misunderstanding Information On Medication, Uncertainty About The Necessity Of Medications	Reporting Adverse Effects To Physician, Counselling The Patient On Necessity Of Medication Compliance
SOCIO-ECONOMIC-RELATED FACTORS	Illiteracy, Unemployment, Cost Of Medications	Opting Low Cost Alternatives
HEALTH CARE TEAM/HEALTH SYSTEM-RELATED FACTORS	Patient-caregiver Relationship, Lack Of Information On Drug Use And Its Benefits	Discussion With Care-giver And Improved Patient-caregiver Relationship

OUTCOMES

Drug Compliance	Base line	4 weeks after	P-value
Mean score	7.61	10.27	0.009

Compliance at initial assessment and reassessment (after 4 weeks).Chi-square test was used to calculate the significance. The P-Value is .009284. The result is significant at p < .05.

FACTORS	MEAN SCORES (N=70)	BASE LINE	AFTER 4 weeks	P-value
PATIENT RELATED		4.17	5.60	0.0001 (P<<0.05)
THERAPY RELATED		1.67	1.93	0.0002 (P<<0.05)
SOCIO-ECONOMIC RELATED		0.83	0.99	0.002 (P<<0.05)
HEALTH CARE RELATED		0.96	1.76	0.0001 (P<<0.05)

Values were expressed as Mean ± SD, and reassesment of patient compliance after customed interventions (4 weeks) when compared with initial assesment found to be significant at p<0.05 when analysed by paired t-test.

■ Initial assesment ■ Reassesment (after 4 weeks)

DISCUSSION

In our study during intial assessment **18.6%** were high compliant, **48.8%** were Moderate compliant and **32.6%** were low compliant. Patients who were moderately compliant and low compliant were considered as Non-compliant.patient specific reason for non compliance was identified and targeted interventions were performed for non compliant patients. After 4 weeks patients who were moderately compliant , **64.3%** changed to high compliant, **35.7 %** changed to moderate compliant.Patients who were low compliant, **28.6 %** changed to high compliant, **67.9 %** changed moderate compliance and **3.6 %**were low compliant.

This supports that interventions aimed at enhancing compliance are of utmost importance. The overall compliance taking all factors into consideration stood at 69% during primary interview & re-assessment (follow-up) was done after 4 weeks, the compliance stood at 93%, a 24% increase in compliance.

CONCLUSIONS

✓The prime aspect of this study was to **draw attention** to the **issue of non-compliance** with treatment regimen in acute stroke patients.

✓Targeted interventions at patient level like **education on self management of diseases, rationale of medications & their use, follow-up interviews , reporting adverse effects to physician, patient counselling, opting a low cost alternative on discussion with care-giver and improved patient-caregiver relationship are useful in improving drug compliance.**

✓On a concluding note, **improved compliance** can be translated into **health and economic benefits**. Patients who take responsibility for their regimen by discussing concern with care-givers are likely to benefit more from a treatment plan, improving **"Compliance".**

REFERENCES

E. Morisky, ScD, MSPH; Alfonso Ang, PhD; Marie Krousel-Wood, MD, MSPH;Harry J. Ward, MD Predictive Validity of a Medication Adherence Measure in an Outpatient Setting. J Clin Hypertens.2008: 348-354