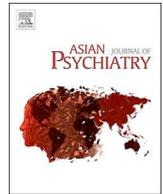




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Letter to the Editor

Video based intervention to improve compliance with prescribed drug regimen



1. Introduction

Non compliance is a multidimensional phenomenon with Non Communicable Disorder's (NCDs) and more so common with Severe Mental Disorder's (SMDs) like Schizophrenia (Farooq and Naeem, 2014; Rao et al., 2017). Rates of non compliance vary widely, ranging from 20% to 89%, with an average rate of approximately 50% in Schizophrenia (Lacro et al., 2002). It is influenced by sociodemographic, clinical, psychopharmacological and attitudinal factors. Many pharmacological, psychological and psychosocial models and interventions have been around since the last few decades to address non compliance (Farooq and Naeem, 2014) but it continues to remain a public health problem despite advanced treatment and interventions (Gowda et al., 2017). We would like to report a case of a 36 years old male, with a diagnosis of psychosis and multiple disease relapses due to erratic drug compliance. The case report illustrates how compliance can be improved for the same drug regimen with a simple video based intervention.

2. Case

Mr N is 36 years old unmarried, gentleman, educated upto 10th standard, a farmer by profession and hails from a rural part of Karnataka. He is pre-morbidly well adjusted, with no contributory family and personal history. He presented to us with a 6 month history of insidious onset, continuous illness characterized by fearfulness, suspiciousness, and death wishes. He also had a history of one high intentional suicide attempt. There was also significant alterations in bio-socio-occupational functioning. His mental status examination revealed ill systematised, non encapsulated, delusions of persecution and reference with depressive cognitions and death wishes. Patient attributed his depressive cognitions and death wishes to the delusional beliefs of him being persecuted by someone. He satisfied the International Classification of Diseases - 10 (ICD -10) criteria for the diagnosis of Psychosis, Not Otherwise Specified. In view of the high intentional suicidal attempt and ongoing death wishes, he was treated as an inpatient for 17 days. He showed improvement with the medications and at discharge, the patient was on Tab. Risperidone 8 mg /day, Cap. Fluoxetine 20 mg /day, Tab. Trihexyphenidyl 4 mg /day and Tab. Clonazepam 1 mg/day. After the discharge, Tab. Clonazepam was gradually tapered and stopped.

For the next 2 years, the patient had multiple and frequent relapses of psychotic symptoms. The main reason for the relapses was non compliance with the prescribed medication. The patient had difficulties in understanding and executing the recommended drug regimen, despite multiple attempts by the treating team through conventional adherence improvement strategies. The patient and the family were also psychoeducated about the need for medications, the dosage, the expected effects and the common side-effects. The family was also

educated about the early symptoms of a relapse. These strategies were tried and tested multiple times, but the outcome of this intervention was not favorable. The patient continued to be non compliant and had difficulties remembering the frequency, strength and dosage of medications.

At this point in time, our team discussed and came up with a simple video based intervention (Video Link) to improve compliance with prescribed drug regimens. The approach was to use the mobile phone, to record the video of the treating teams narrative, explaining identification, dosage and frequency of medications. The patient was advised to view the video every time he had to take the prescribed medications. This particular intervention improved the drug compliance substantially after 2 years of erratic drug compliance and poor control of symptoms. There was a significant improvement in patients symptoms and biopsychosocial functioning. The patient continues to remain asymptomatic since the past 15 months

3. Discussion

In this case, the patient had a diagnosis of Psychosis NOS and poor compliance. The factors that contributed to poor compliance in this patient were lower education status, multiple medications and multiple divided doses (Kardas et al., 2013). This in turn contributed to the vicious cycle of poor adherence and poor control of psychiatric symptoms. Considering all these barriers to drug compliance in this patient, a traditional approach of tackling non compliance was unsuccessful and there was a need to innovate and develop a person centred approach to improve the compliance.

The treating teams used simple video based intervention, in which the narrative explaining, identification, dosage and frequency of prescribed medications was video recorded through smartphone. The patient was advised to view the recorded video every time he had to take the prescribed medications. This asynchronous video based approach improved the patients understanding of drug dosing pattern and there by improved the compliance.

This is possible with any camera enabled phone and tablets. Similar to our approach, the Asynchronous Video Observed Therapy (A VOT) has been tried before for Communicable diseases such as Tuberculosis and Acquired Immune Deficiency Syndrome (AIDS). Our approach is similar to A VOT in being video based. There is existing evidence to show that A VOT has high rates of adherence and patient acceptance (Garfein and Doshi, 2019). These VOT based video approaches are simple, acceptable, time conserving, cost effective, and can be replicated in both low resource and high resource settings alike, while maintaining high patient satisfaction as demonstrated in previous studies (Subbaraman et al., 2018). Asynchronous VOT is advantageous over real time, synchronous VOT approaches in the following aspects like the non requirement of a high speed internet connectivity, lack of costs involved in storing of data, the need for videoconferencing solutions, real time

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streaming of video and the risk of leakage of personal, health and confidential medical information to the third party.

Use of technology and its application has been used for the delivery of mental health care and training for the last one decade in India (Gowda et al., 2018; Manjunatha et al., 2018). Newer Asynchronous VOT approach will be an additional tool to tackle the problem of non compliance.

4. Conclusion

Asynchronous Video based interventions are feasible, acceptable, cost effective and can help in drug adherence. Similar models will be useful in tackling the problem of non compliance across different settings in a resource limited setting like India.

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Author contribution

All the authors have contributed and approved the final manuscript.

Conflict of interest

The authors declare no conflict of interest.

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