



Research Article

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PHARMACIST-LED COLLABORATIVE APPROACH IN QUALITY OF LIFE THROUGH 36-ITEM SHORT FORM SURVEY QUESTIONNAIRE IN PATIENTS ON ATYPICAL ANTIPSYCHOTICS

Kamble Namit Ananda ^{1*}, Sangaokar Dhanashree Ghanashyam ¹, Tanveer Ahamad ¹, Tekkalaki Bheemsain V ²

¹Doctor of Pharmacy, Department of Pharmacy Practice, KLE College of Pharmacy, KLE Academy of Higher Education And Research (Deemed-to-be-University), Belagavi-590010, India

²Assistant Professor, Department of Psychiatry, J.N. Medical College, KLE Academy of Higher Education And Research (Deemed-to-be-University), Belagavi-590010, India

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*Corresponding author

E-mail: kamble.namit@gmail.com

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ABSTRACT

The 36-Item Short Form Survey is a 36-item, patient reported the survey of patient's overall health. It is a tool of health status generally used in health economics. The purpose to evaluate the Quality of Life with the use of 36-Item Short Form Survey questionnaire in patients with schizophrenia adherent on Atypical Antipsychotics by concealed randomization allocation method, subjects were assigned into two groups for a period of 6 months. The primary segment was baseline data preceded by follow-up data after 2 months. The result stated that an interventional group was more effective with respect to improvement in Quality of Life than the controlled group. An interventional group was efficient due to the adaptation of 36-Item Short Form Survey with the collaborative care of Pharmacist and Psychiatrist. The study summarizes the mental health system and is considered by Indian masses in recent era to be a neglected segment in the society. The collaborative care approach towards mental health can be an executable choice to address the unmet needs in schizophrenic patients.

Key Words: 36-Item Short Form Survey, Schizophrenia, Atypical Antipsychotics, Quality of Life

INTRODUCTION

The Chronic Care Model has been adapted to improve the management of mental disorders, leading to the development of the collaborative care model, a multicomponent, healthcare system-level intervention that uses case managers to link medical aid suppliers, patients, and mental state specialists. Collaborative care models generally embrace case managers, WHO support medical aid suppliers with the pharmaceutical care functions like patient education, patient follow-up to track depression outcomes, management of adverse events, medication adherence to treatment and adjustment of treatment plans for patients who do not improve¹. WHO (1997) defines Quality of Life (QOL) as person perception of their position in life in the context of culture and values in which they live in relation to goals, expectations, standards, and concern². The 36-Item Short Form Survey (SF-36) Health Survey is a 36-item, patient-reported survey of the patient's overall health. It is commonly used in health economics as a variable in the quality-adjusted life calculation to work out the cost-effectiveness of a health treatment.

The eight parts involved in SF-36 questionnaire are vitals, physical functioning (how much an individual function in day-to-day activities), bodily pain (how intensity a person bares daily), general health perceptions (what individual thinks about its health), physical role functioning, emotional role functioning, social role functioning and mental state³.

Schizophrenia referred by the fifth Diagnostic Manual of Mental Disorders (DSM-V) as individuals suffering from characteristic psychotic symptoms and a noted deterioration in adaptive functioning. Two or more from a list of symptoms

must be present, with at least one of them being delusions, hallucinations, or disorganized speech. The time frame is an active phase of the disorder lasting approximately one month and these symptoms, with possibly less intensity, continuing for the duration of at least six months⁴. Schizophrenia is one of the most serious and frightening of all mental illnesses⁵. The global prevalence of schizophrenia in adults is reported from 0.3% to 0.7% of the population, with variations noted among certain population groups, geographic locations, and immigrant status⁶.

The first goal of treatment for patients with mental disorders focused on schizophrenia is to control symptoms to allow the return to normal levels of psychological functioning and rapid control of symptoms such as agitation, aggression, delirium, visual hallucinations, etc. The commonly prescribed Atypical Antipsychotics drugs are; Amisulpride, Aripiprazole, Clozapine, Olanzapine, Quetiapine, Risperidone, Zolopine⁷. The study was to assess mainly the effectiveness of collaborative approach involving clinical Pharmacist-Psychiatrist in the patients on Atypical Antipsychotics towards the quality of life of schizophrenic patients using the SF-36 Questionnaire.

MATERIALS AND METHODS

Study Design: It was a Prospective, Open-Label, Randomized and Interventional Study for the duration of 6 months. Data was collected from the In-patient and Out-patient Department of Psychiatry, KLES Dr Prabhakar Kore Charitable Hospital and Medical Research Centre, Nehru Nagar, Belagavi, Karnataka. In which adult patients, 18 to 65 years of age were enrolled in the study and those were eligible but those who did not consent to participate in the study were excluded. 165 subjects were

screened out of which 60 subjects (34 male + 26 female) were fulfilling the eligibility criteria and were interviewed by using the SF-36 questionnaire. The Institutional Ethical Committee clearance was obtained from the Human Ethics Committee of KLE College of Pharmacy, Belagavi (Ref No. KLECOP/791/2017-18). After obtaining the Ethical approval, Informed consent was obtained from each participant of the study before starting the data collection. The assurance was given to each subject that the anonymity of each individual would be maintained and they were free to withdraw from the study at any time.

Data collection was done within the given period of time among both inpatients and outpatients during. Self-introduction by the

researcher and details about the study was explained to the Subjects and their LAR was obtained. After the data collection, the participants were educated with the collaboration of Pharmacist- Psychiatrist and pamphlet of the disorder. The data collected was using (Online) Cognito Forms ⁸ and Google forms ⁹.

Statistical Approach: Data was analyzed by using a statistical package SPSS.20.0 for Windows and Excel 2007. A mixed design ANOVA model with the factors Group and Assessment was used. The value of statistical significance was set at $p \leq 0.05$ for all tests.

Table 1: Summary of the subjects enrolled in the study (N=60)

| Domains | Number (N) | (%) |
|----------------------|------------|------|
| Age (years) | | |
| 18 to 29 | 15 | 25 |
| 30 to 39 | 18 | 30 |
| 40 to 49 | 20 | 33.3 |
| 50 to 59 | 5 | 5 |
| More than 60 | 2 | 3.3 |
| Gender | | |
| Male | 34 | 56.6 |
| Female | 26 | 43.3 |
| Marital Status | | |
| Unmarried | 17 | 28.3 |
| Married | 41 | 68.3 |
| Widow | 1 | 1.6 |
| Divorced | 1 | 1.6 |
| Socioeconomic Status | | |
| Govt. Job | 2 | 6.6 |
| Private Job | 18 | 30 |
| Daily Basis | 2 | 3.3 |
| Homemaker | 21 | 35 |
| Farmer | 9 | 15 |
| Student | 1 | 1.6 |
| Unemployed | 7 | 11.6 |
| Habits (Tobacco) | | |
| Smoker | 7 | 11.6 |
| Chewing | 6 | 10 |
| Nil | 47 | 78.3 |
| Habits (Alcohol) | | |
| Yes | 7 | 11.6 |
| No | 53 | 88.3 |

Table 2: The scores of SF-36 questionnaire

| SF-36 subscales | No. of items | Levels | Control Group M (SD) | Interventional Group M (SD) | F between Assessment | p value |
|--|--------------|-----------|----------------------|-----------------------------|----------------------|---------|
| Physical Functioning | 10 | Baseline | 71.2 (10.63) | 66.3 (17.76) | 23.1 | 0.24 |
| | | Follow up | 82.1 (16.31) | 83.6 (19.42) | 48.1 | 0.004* |
| Role limitations due to physical health | 4 | Baseline | 53.3 (26.94) | 49.9 (27.21) | 27.1 | 0.19 |
| | | Follow up | 65.8 (17.07) | 63.3 (19.81) | 24.6 | 0.01* |
| Role limitations due to emotional problems | 3 | Baseline | 52.2 (35.95) | 47.7 (30.97) | 28.9 | 0.18 |
| | | Follow up | 64.4 (20.09) | 54.4 (17.11) | 11.6 | 0.03* |
| Energy/Fatigue | 4 | Baseline | 46.9 (30.91) | 49.4 (25.98) | 21.2 | 0.24 |
| | | Follow up | 49.9 (14.68) | 50.9 (19.78) | 11.3 | 0.03* |
| Emotional well-being | 5 | Baseline | 55.8 (12.97) | 59.9 (18.98) | 11.8 | 0.75 |
| | | Follow up | 59.5 (8.98) | 63.1 (26.07) | 20.5 | 0.01* |
| Social functioning | 2 | Baseline | 69.5 (10.48) | 67.08 (14.12) | 17.6 | 0.27 |
| | | Follow up | 77.4 (11.18) | 78.8 (17.89) | 74.1 | 0.002* |
| Pain | 2 | Baseline | 68.3 (3.36) | 71.1 (5.42) | 20.3 | 0.24 |
| | | Follow up | 80.7 (4.12) | 91.1 (9.01) | 13.9 | 0.02* |
| General Health | 5 | Baseline | 39.1 (8.83) | 41.3 (8.59) | 17.7 | 0.27 |
| | | Follow up | 46.9 (5.54) | 45.3 (7.56) | 27.9 | 0.01* |

* $p < 0.05$, M (SD) - Mean (Standard deviation)

RESULTS

The summary of the subjects enrolled in the study are shown in Table 1. While assessing the quality of life, according to the domains of the SF-36, it was found to be statistically, and clinically significant. The scores of the SF-36 questionnaire on the item's functional capacity, physical aspects, pain, general health, vitality, social aspects, emotional aspects and mental health were recorded. The process for comparison showed that all items of the evaluation were significantly lower at the baseline when compared to the follow-up ($p < 0.05$ in all cases) is shown in Table 2.

DISCUSSION

This study is first of its kind as a collaborative initiative between pharmacist and psychiatrist at the mental health clinic in the developing country which describes the collaborative work between pharmacist and psychiatrists in the mental health clinic. Tallian K.B, et.al emphasized need to assess, practice description, practice innovation of a psychiatric pharmacist medication therapy management (MTM) clinic with related challenges and opportunities at the in-patient, and out-patient department¹.

The instruments for QOL assessment should enable the detection of changes in health status, as well as evaluate the prognosis, risks and benefits of a particular therapeutic intervention. Bobes J, et al had observed in the quality of life instruments focusing on their conceptual framework, structure, administration and psychometric properties¹⁰. Only three scales (role physical, role emotional and mental health) showed statistical differences, with schizophrenic patients. Schizophrenia showed a selectively low quality of life in social functioning, role physical and role emotional. Schizophrenic patients demonstrated significant improvements from admission to discharge in all SF-36 scales, without further significant changes in the 2-month follow-up. The improvement of the quality of life was independent of the improvement in positive or negative symptoms. Likewise ascertained in this study role physical, role emotional and mental health is seen apart from other aspects.

It was observed that all the domains of the SF-36 questionnaire were clinically significant and statistically significant ($p < 0.05$) which relates that the study was beneficial to subjects. Similarly, in this study assessment of the positive impact of pharmaceutical care was more in the interventional group rather than with the standard care group. Hence, this study indicates that the SF-36 is a reliable and valid instrument for the assessment of QOL in patients with Schizophrenia. The study provides a view of the mental health system and is considered by the Indian population in the recent era to be neglected segment in the society. We the researcher felt the need for speciality pharmacist to provide long-term medication management for the patients with chronic mental illness. The collaborative care approach towards mental health can be chosen to address the unmet needs in the schizophrenic patients and also to the other psychiatric illness.

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