A study to develop and assess the effectiveness of self care intervention guidelines on knowledge on self care, attitude, compliance to ART, anxiety, quality of life and practice in home care management of persons living with HIV at ART Clinic, CMC, Vellore, India.

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ABSTRACT

Background of the study

Human Immunodeficiency Virus (HIV) infection is a global health problem characterized by a great deal of uncertainty and unpredictability. At the end of 2013, it is estimated that 35 million people were living with HIV in the world. India has the third largest number of people living with HIV/AIDS and the majority of them (88.55%) are in the age group of 15-49 years, out of which 27.8% are in the age group of 15-29 years. The impact of HIV on physiological, psychological, social and economic domains of Persons Living with Human Immunodeficiency Virus (PLHIV) is very intense due to the nature of disease and the side effects of Anti-Retroviral Therapy (ART).

The nature of chronicity poses greater demands on PLHIV for comprehensive self care in order to adopt positive living. Self care involves all the activities that are expected to be followed by PLHIV such as compliance to ART and supportive care, to promote a sense of well being and prevent complications of HIV and manage minor discomforts at home caused by side effects of ART or HIV itself. Therefore, the investigator has developed a Self Care Intervention Guidelines (SCIG) to provide information to the PLHIV about the impact of HIV on human immune system, medical treatment for HIV infection, supportive care including diet, physical activity, complementary therapies, prevention, early detection and management of Opportunistic Infections, psychological-spiritual-social aspects of care, home care management of minor ailments caused by ART or HIV disease and the life style modifications they need to adopt to lead a positive living and improve their quality of life.

Methods

An experimental research design was used, using a questionnaire to assess knowledge on self-care, likert scale to measure the attitude, Morisky Medication Adherence Scale (MMAS) and
Patient Recall and Pill count method to assess the compliance to ART, State Trait Anxiety Inventory (STAI) scale to measure the anxiety, WHO Quality of Life- Bref scale to measure QOL and practice checklist to measure their self reported practice. A total of 150 PLHIV were recruited with 75 in the control group and 75 in the experimental group for the study using the permuted block randomization. Systematic random sampling technique was used to select the subjects. Data collection was done at three time points for subjects in both experimental and control groups. The subjects were interviewed separately and privately at ART Clinic. Pre-test data were collected by the investigator as soon as the subject was selected which included socio-demographic and clinical data and data on knowledge on self care, attitude, anxiety, compliance to ART, quality of life and practice in home care management of PLHIV.

After the pre-test, the subjects in the experimental group were taught on self care by the investigator individually with the help of SCIG using discussion and demonstration methods. The subjects in the control group received the standard care. Following the teaching the investigator ensured the PLHIV understood everything taught to them especially exercises, yoga, progressive muscle relaxation techniques and each subject was asked to do the return demonstration. Then, each subject was given a copy of the SCIG and was asked to read it completely at home and follow the self care instructions appropriately. First post-test assessment was done at 4-6 weeks by the investigator which was followed by reinforcement. At 12-14 weeks second post-test assessment was done.

Results

The mean age of subjects in both the groups was almost similar (control-40.86 ± 8.74, experimental-39.34 ± 7.38) which reflects that PLHIV are in their productive age group. The majority (72.22%, 79.45%) in control and experimental group respectively, have been infected with HIV for more than three years. The mean score difference in knowledge on self care of PLHIV between control and experimental group was 0.98, 8.53, and 8.68 in the pre-test, post-test I, and post-test II respectively and the difference was highly significant, at p<0.001. Similar trend was seen in the mean score difference of attitude of PLHIV also i.e. 0.89 (pre-test), 18.61(post-test I) and 21.07 (post-test II) and the difference was highly significant, at p<0.001. But there was no statistically significant difference observed in the mean score difference of compliance to ART as measured by MMAS and patient recall and pill count method.
Regarding the PLHIV’s mean score difference on anxiety between the control and experimental group, the findings reflected that the difference was 4.29, 3.81, and 5.41 in the pre-test, post-test I and post-test II respectively, p<0.001. Similarly, there was a highly significant mean score difference in QOL (2.60, pre-test), (6.63, post-test I) and (10.32, post-test II) and practice in home care management (0.97, pre-test), (20.39, post-test II), and (25.30, post-test II), at p<0.001. Regarding the relationship among the dependent variables of this study, it was found that knowledge on self care, attitude towards self care, practice in home care management of PLHIV had positive correlation with QOL in all three measurements.

**Conclusion**

Based on the above findings, the study concluded that the SCIG is an essential and effective intervention in improving the knowledge on self-care, attitude towards self care, compliance to ART, QOL, practice in home care management and reduction in the anxiety of PLHIV.

**Keywords:**

Knowledge on self care, attitude, compliance to Anti Retroviral Therapy, anxiety, quality of life, practice in home care management, Persons Living with Human Immune deficiency Virus, Self Care Intervention Guidelines.