

Effect of chemotherapy counseling by pharmacists on quality of life and psychological outcomes of oncology patients in Malaysia: a randomized control trial

ABSTRACT

Background: Cancer is now becoming a leading cause of death. Chemotherapy is an important treatment for cancer patients. These patients also need consultation during their treatment to improve quality of life and decrease psychological disorders. The objectives of the study were to develop, implement and evaluate the effectiveness of a chemotherapy counseling module by pharmacists among oncology patients on their quality of life and psychological outcomes in Malaysia.

Method: A single-blind randomized controlled trial was carried out among 162 oncology patients undergoing chemotherapy from July 2013 to February 2014 in a government hospital with oncology facilities in Malaysia. Participants were randomized to either the intervention group or the control group. Chemotherapy counseling using the module on 'Managing Patients on Chemotherapy' by Pharmacists was delivered to the intervention group. The outcome measures were assessed at baseline, first follow-up and second follow-up and third follow-up post-intervention. Chi-square, independent samples t-test and two-way repeated measures ANOVA were conducted in the course of the data analyses.

Results: In assessing the impact of the chemotherapy counseling module, the study revealed that the module along with repetitive counseling showed significant improvement of quality of life in the intervention group as compared to the control group with a large effect size in physical health ($p = 0.001$, partial $\eta^2 = 0.66$), psychological ($p = 0.001$, partial $\eta^2 = 0.65$), social relationships ($p = 0.001$, partial $\eta^2 = 0.30$), and environment ($p = 0.001$, partial $\eta^2 = 0.67$) and decrease in the anxiety ($p = 0.000$; partial $\eta^2 = 0.23$), depression ($p = 0.000$; partial $\eta^2 = 0.40$).

Conclusion: The module on 'Managing Patients on Chemotherapy' along with repetitive counseling by pharmacists has been shown to be effective in improving quality of life and decreasing anxiety and depression among oncology patients undergoing chemotherapy.

Trial registration number: National Medical Research Register (NMRR) of Malaysia and given a registration number NMRR-12-1057-12,363 on 21 December 2012.

Keyword: Cancer; Chemotherapy; Quality of life; Psychological outcomes; Counseling; Pharmacist; Malaysia