Variables associated with medication non-adherence in patients with COPD in Amman

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Background Research has indicated that medication non-adherence represents a major barrier to achieve the desired health outcome in patients with COPD. Identification of obstacles to medication adherence should guide the development of future pharmaceutical care programs for patients with COPD.

Purpose The aim of the present study was to assess medication adherence and to investigate the factors that are significantly associated with self-reported medication non-adherence in patients with COPD.

Method The present study used data collected for patients attending the outpatient respiratory clinic at King Hussein Hospital in Amman. Socio-demographics including age, gender, educational level, income, marital status, smoking behavior in addition to medical variables including duration of COPD, number and frequency of COPD medications, type and number of co-morbidities and the prescribed medications were collected using a custom-designed questionnaire. Morisky medication adherence scale was used to assess medication adherence. The stepwise logistic regression analysis was performed in order to identify variables that independently and significantly predicted medication non-adherence.

Findings A total of 133 patients participated in the study. Results indicated that majority of the patients (61.7%) were non-adherent. According to the model, patients were four times more likely to be non-adherent if they reported having depression (OR = 0.251, CI = 0.02-1.93) and approximately eight times to have medication non-adherence if they suffered from comorbidity (OR = 0.119, CI = 0.06-1.04). Study participants were found to have a double risk of medication non-adherence if they received an increase in the frequency of administration of their COPD medication (OR = 0.524, CI = 0.23-0.89) and being concerned about adverse events (OR = 0.515, CI = 0.09-1.22).

Conclusion Depression, dosage regimen complexity, the presence of comorbidities and therapy adeverse events have significantly influenced adherence to COPD therapy in the present study. Future pharmaceutical care interventions should provide emotional support, simplify dosage regimen, use adherence aids, elicit patients' concerns about their comorbidities, select treatments with less adverse events and help the patients coping with adverse events in order to enhance adherence and health outcomes in patients with COPD.