



**Effects of Medication Management Review Service on Patients
Diagnosed with Type II Diabetes: Randomized Controlled Trial**

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**This Thesis was Submitted in Partial Fulfillment of the Requirements for
Master's Degree of Pharmaceutical Sciences**

**Applied Science Private University
Deanship of Scientific Research and graduate Studies**

March-2017

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ABSTRACT

Medication management review (MMR) is a distinct service or group of services that optimize clinical outcomes for each patient to ensure the appropriateness, usefulness, safety for each patient's medications, along with ability of the patient to take their medications as should be. Type II diabetes is a chronic condition of great concern where Jordan has one of the highest prevalence of diabetes in the world.

This study utilized randomized controlled trial design to investigate and explore the effectiveness of the MMR service on Jordanian patients with type II diabetes. A total of 139 patients were approached and were randomly selected from three health care centers (Al-Hassan, Prince Hashem and Ain Jana health care centers) in Ajloun, Jordan. Patients were divided into two groups experimental (n=70) and control (n=69). Both groups were reassessed after 3 month to find out the effects of MMR service.

A total of 407 TRPs were identified during the study period. The mean number of TRPs per patient was (2.92 ± 0.95). There was a significant decrease in the mean number of TRPs

in the experimental group after three month from 3.02 ± 0.95 to 0.5 ± 0.62 per patient, $p < 0.0001$. Also, there was a significant decrease in the mean of HbA1c from 7.80 to 7.31 after the intervention, ($p < 0.01$) the same also for the mean of self-care activity improved from 27.22 to 35.85, ($p < 0.001$) where the drug adherence improved as the mean score decreased from 12.95 to 10.38, ($p < 0.001$) and the quality of life improved as the mean score decreased from 29.60 to 26.01, ($p < 0.001$). However, the lower the number the better the adherence and quality of life.

Due to the positive effects of the MMR service and the role of the clinical pharmacist played in this study, more than 88.20% of the TRPs were eventually resolved in the intervention group. The feasibility and the acceptances of the MMR service were excellent. The physicians showed high acceptance (67.53%) of the clinical pharmacist recommendations.

Results of this study showed that MMR service is needed for the management of patients with type II diabetes in Jordan. The service was well accepted and hence can be implemented following to the approval from the health policy maker.

