

UNIVERSITI TEKNOLOGI MARA

**THE IMPACT OF PHARMACIST
COUNSELLING ON PATIENT
MEDICATION ADHERENCE AND
HELICOBACTER PYLORI
ERADICATION RATE IN
JORDANIAN OUTPATIENTS**

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution, whether in the same form or a different form, in the aim of an application for any degree or qualifications.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Background: Patient's adherence to *Helicobacter pylori* (*H. pylori*) regimen has a critical effect on its outcome. There is a great interest to assess the impact of pharmacist counselling, treatment characteristics, patient's knowledge, patient's socio-demographic and medical history on medication adherence and *H. pylori* eradication rate. **Objectives:** This study assessed the impact of pharmacist counselling, patient's knowledge, socio-demographic and medical history on medication adherence and *H. pylori* eradication rate. **Methods:** This is a prospective, randomised, controlled study, conducted on Jordanian *H. pylori* infected outpatients. A total of 200 patients have volunteered and met the inclusion criteria that were randomly assigned for intervention and control groups. To avoid the contamination between these patients, the study population was separated by a reasonable geographical distance and there was no relationship between them. Each group consisted of 100 patients, the intervention group was subjected to pharmacist counselling, then followed-up for 14 days, while the control group went through normal hospital procedure. Medication adherence in both groups was assessed by the Morisky Medication Adherence Scale-8 (MMAS-8) and pill count method. Data were collected from patients in both groups through questionnaires, medical records and laboratory test results. Four weeks following the completed eradication regimen, both groups were subjected to stool antigen test and dyspeptic symptoms assessment to confirm *H. pylori* eradication. Data were analysed by the statistical package for social sciences (SPSS v20). **Results and Discussion:** 51.5% of patients were male, where their mean age was 44.9 ± 14.9 years. There were significant differences in medication adherence by pill count (27.0%, 45.5%), by MMAS-8 scale (28.5%, 46.0%), and a significant difference in eradication rate (27.5%, 43.5%) after applying pharmacist counselling. However, pharmacist counselling was not a significant predictor of medication adherence and *H. pylori* eradication rate. There was no association between the patient's socio-demography and medical history with medication adherence. The relationships between the regimen complexity and side effect with medication adherence and *H. pylori* eradication rate were significant. Furthermore, regimen complexity was a significant predictor of medication adherence with $P < 0.05$, while regimen side effect was not a predictor of medication adherence and both were not predictors of *H. pylori* eradication rate. There was a significant difference in a sufficient patient's knowledge after receiving pharmacist counselling with 25.5% and 50.5%. Furthermore, the relationships between a patient's knowledge with medication adherence (measured by pill count and MMAS-8 scale) and the eradication rate were significant. The patient's knowledge was a good predictor of medication adherence and *H. pylori* eradication rate. The association of medication adherence with *H. pylori* eradication rate was a significant predictor of eradication with $P < 0.05$. Successful *H. pylori* eradication significantly improved dyspeptic symptoms. **Conclusion:** This study reflects the importance role of pharmacist counselling, patient's knowledge and patient's medication adherence in successful eradication rate, whereas patients who received pharmacist counselling exhibited a sufficient knowledge and a perfect rate of medication adherence and in turn lead to successful *H. pylori* eradication.

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