

## ABSTRACT

### Evaluation of drug-related problems in community pharmacies: Pharmacists' Intervention Study

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**Background:** Drug-related problems (DRPs) lead to avoidable negative health effects. In addition to identifying the characteristics linked to a higher risk of DRP in a community pharmacy setting, the study's objectives included defining the types, numbers, and frequencies of DRPs in community pharmacies in the Ramallah governorate.

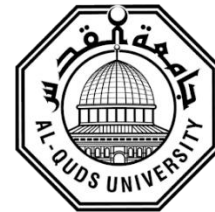
**Methods:** In order to identify any issues or uncertainties with prescriptions, we collected anonymous information from pharmacists who called prescribers. DRPs were classified according to the Pharmaceutical Care Network Europe v6.2 classification. The study obtained ethical approval from the ethical committee at the faculty of pharmacy.

**Results:** Eight pharmacies provided data for an entire 5-month period. Over 5 months, pharmacists and the investigator team reviewed 810 prescriptions. Of these 227 (28%) prescriptions needed the pharmacist to take additional action. The most frequent DRP was non-optimal dose administration (50/227 = 22.0 %), followed by drug-drug interaction (41/227 = 18.0%) and unnecessary drug (31/227 = 13.7%).

Interventions by pharmacists were accepted in 74.4% of DRPs, partially solved or pending in 15%, and rejected by the prescribers in 10.6% of cases. Logistic regression showed that polypharmacy (OR= 1.7: 1.11 – 2.99; P<0.05) and the number of clinical conditions (OR= 1.9: 1.2 – 3.3; P<0.05) were associated with a higher risk of DRP.



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**Conclusion:** The participation of community pharmacists in multidisciplinary teams promotes the detection and solution of DRP. Polypharmacy and a number of clinical conditions are associated with a higher risk of DRP.

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