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## Analysis of Drug-Related Problems Identified by Future Pharmacists in Medical Wards of Tertiary Hospitals in the State of Pahang, Malaysia

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### Abstract

Objective: Clinical attachments undertaken by pharmacy students in Malaysia are one of the important platforms in order to prepare future candidates for patient-centred pharmacy practice. The lack of data regarding the identification of Drug-related problems (DRPs) and the suggestion of relevant interventions by final year pharmacy students has directed the current research to describe pharmacy students' abilities in identifying DRPs in their final year clinical placements. Methods: As a descriptive cross-sectional study, it involved the analysis of the clinical case reports of final year pharmacy students during their six-week clinical attachments between February and April 2017 across three different tertiary hospitals in the state of Pahang, Malaysia. A six-member team, who had received the required training by the study's principal researcher, performed the data extraction from the clinical attachment reports. Results: A total of 385 clinical case reports, identified 880 DRPs. The two most common types of identified DRPs were the untreated condition (17.4%), followed by inappropriate drug selection (16.3%). Nearly 47.7% of total detected DRPs were related to the indication and efficacy domains of therapy assessment. Additionally, there was a positive correlation found between the number of underlying diseases and the number of identified DRP,  $r(s) (372) = .14, p = .007$ . Conclusion: During the final year clinical attachments, the majority of the students were able to identify a considerable number of DRPs in the hospital setting under the supervision of their preceptors. The characterisation of the identified DRPs could be instrumental in refining the experiential clinical learning among future pharmacy practitioners.

### Keywords

**Author Keywords:** Drug-related problem; Experiential learning; Pharmacy students; Clinical attachment

**KeyWords Plus:** CLINICAL PHARMACISTS; PHARMACEUTICAL CARE; STUDENTS; IMPACT

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1. **Drug related problems and reactive pharmacist interventions for inpatients receiving cardiovascular drugs** Times Cited: 3  
By: Abraham, RR.  
Int. J. Basic Med. Sci. Pharm. Volume: 3 Issue: 2 Pages: 42-48 Published: 2013
2. **Drug-related problems identified by clinical pharmacist's students and pharmacist's interventions** Times Cited: 15  
By: Al-Hajje, A. H.; Atoui, F.; Awada, S.; et al.  
Annales Pharmaceutiques Francaises Volume: 70 Issue: 3 Pages: 169-176 Published: MAY 2012
3. **Assessing Student Pharmacists' Ability to Identify Drug-Related Problems in Patients Within a Patient-Centered Medical Home** Times Cited: 12  
By: Armor, Becky L.; Bulkley, Christina F.; Teresa Truong; et al.  
AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION Volume: 78 Issue: 1 Article Number: 6 Published: 2014
4. **The Role of the Pharmacist in Health Care: Expanding and Evolving.** Times Cited: 4  
By: Blouin, Robert A; Adams, Michael L  
North Carolina medical journal Volume: 78 Issue: 3 Pages: 165-167 Published: 2017 May-Jun
5. **Drug related problems identified by community pharmacists on hospital discharge prescriptions in New Zealand** Times Cited: 12  
By: Braund, Rhiannon; Coulter, Carolyn V.; Bodington, Amy Jane; et al.  
INTERNATIONAL JOURNAL OF CLINICAL PHARMACY Volume: 36 Issue: 3 Pages: 498-502 Published: JUN 2014
6. **Health Care Systems and Transitions of Care: Implication on Interdisciplinary Pharmacy Services.** Times Cited: 3  
By: Bush, Paul W; Daniels, Rowell  
North Carolina medical journal Volume: 78 Issue: 3 Pages: 177-180 Published: 2017 May-Jun
7. **Knowledge and perceptions toward cardiology pharmacy education and training: Malaysian pharmacy students' perspectives** Times Cited: 2  
By: Elnaem, Mohamed Hassan; Ibrahim, Muhammad Zakirin Bin Che; Rahman, Nor Akhi Hijriyati Abdul; et al.  
CURRENTS IN PHARMACY TEACHING AND LEARNING Volume: 10 Issue: 4 Pages: 453-462 Published: APR 2018
8. **The future of pharmaceutical care in Malaysia: Pharmacy students' perspectives** Times Cited: 1  
By: Elnaem, Mohamed Hassan; Jamshed, Shazia Qasim; Elkalmi, Ramadan Mohamed  
PHARMACY EDUCATION Volume: 17 Issue: 1 Pages: 215-222 Published: 2017
9. **The North Carolina Experiment: Active Research in the Development and Assessment of New Practice Models.** Times Cited: 2  
By: Farley, Joel F; Ferreri, Stefanie P; Easter, Jon C; et al.  
North Carolina medical journal Volume: 78 Issue: 3 Pages: 186-190 Published: 2017 May-Jun
10. **Impact of a collaborative pharmacy practice model on the treatment of depression in primary care** Times Cited: 65