



Processes of Managing Medications in Selected Health Facilities in Botswana

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Background

The processes of managing medications are critical in ensuring safety of clients. Medication management includes vigilance in prescription, transcription, dispensing and administration of medications by various healthcare providers. Little is known about processes of medication management in Botswana. The poster presents preliminary findings of an on-going study on medication errors in selected health facilities of Botswana. The poster is focused on processes of medication management only.



Purpose

To share preliminary findings on the processes of medication management in selected hospitals of Botswana. The role played by each cadre of health care providers in medication management, structures and processes in place for preventing and managing medication errors are highlighted.

Methods

A descriptive cross-sectional mixed-methods design was used. A total of 12 sites representing urban, peri-urban and rural health facilities at primary, district and referral levels were used. Facilities were conveniently selected whereas stratified random sampling was used to select participants. Descriptive statistics were used to analyze the preliminary findings.

Results Demographics

| Type of Health Facility | Referral 2 (public 1 private) | District 1 | Primary 2 | Clinic 1 | Health Post 3 |
|-------------------------|----------------------------------|---------------|--------------|-------------|------------------|
|-------------------------|----------------------------------|---------------|--------------|-------------|------------------|

| | Nurses | Doctors | Anaesthetist/Nurse | Pharmacist/Tech | Total = 53 | |
|--------------|--------|---------|--------------------|-----------------|------------|-------|
| Participants | 29 | 10 | 6 | 8 | F=31 | M= 22 |

The mean age was 40 (SD= 9.7) with a range of 24 to 63 years.

Medication Processing

Prescription was mostly done by doctors (88.6%) followed by nurses (53.8%); particularly those in primary care settings. In private facilities, prescription was solely done by doctors. Transcription and administration were mainly done by nurses. Dispensing was done mainly by pharmacist/technician, but also by nurses and doctors particularly in primary care settings.

Structures for Prevention of Medication Error

- Generally medication errors were covered in the curriculum (88.7%).
- In-service education on medication errors was reported but was uncommon.
- Medication counselling was common at dispensing but was rare at prescription and administration.
- Supervision and self-checking were common at dispensing but rare during prescription, administration and transcription, whereas peer checking was reported at all stages.
- Protocols for mixing injectable medications were available in almost all health facilities studied
- Although some medication errors were reported, such errors rarely reached patients.
- Both medication errors and error documentation tools were more frequently reported in private health facilities and less so in public ones.

Conclusion:

The findings on who prescribes are in line with the Drug and Related Substance Act of Botswana which provides for prescriptive authority for doctors and nurses. Gaps identified in medication management were in counselling during prescription and administration and failure to report some medication errors. The emphasis of counselling at dispensing is a positive observation as that is the last point where any error may be interrupted. Findings indicate a need for system strengthening to provide room for adequate medication counselling and to make the environment conducive for medication error reporting

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