PREVALENCE OF POLYPHARMACY IN ADULT PATIENTS ATTENDING MEDICAL CLINICS AT THE TEACHING HOSPITAL, BATTICALOA

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Polypharmacy, the use of multiple medications by a single patient, is an important and growing challenge for modern clinical practice, drawing interest from clinicians, guideline developers and policymakers. There is evidence that rates of polypharmacy are increasing. International researches show that polypharmacy is common in older adults. Polypharmacy has been shown to result in increased risk of drug interactions, adverse drug reactions (ADRs) and non-adherence to therapy. There is a scarcity of evidence from Asian countries including Sri Lanka. This study reports the preliminary analysis of data from an ongoing study to present the effects of polypharmacy among adult patients attending medical clinics at the Teaching Hospital, Batticaloa.

A descriptive cross sectional study was conducted. A systematic sampling technique was used. 350 patients >=18 years of age attending medical clinics between the period of September 2017 and June 2018 were included in this preliminary analysis. A pre-tested interviewer-administered questionnaire was used to collect data. Prescriptions containing five or more drugs were considered as polypharmacy. Descriptive statistics and a Chi squared test were used to analyze the data using Statistical Package of Social Sciences (SPSS V. 23). Potential drug-drug interaction was analyzed using the British National Formulary (BNF) 72 and using Drug.com online data base.

The mean age of the participants was 58.07 years. 114 were males (32.6%), and 236 (67.4%) were females. Polypharmacy was present in 235 (67.1%) patients increasing with age ($P < 0.05$) (0.3%, 14.9%, 22.9% and 16% in age groups 18–27, 48–57, 58-67 and 68-77 years respectively). Among the 235 patients with polypharmacy, 71.92% were males and 64.83% were females. Polypharmacy was more common ($P<0.001$) in patients with 3 or more clinical conditions (44.2%) compared to those with at least one clinical condition (7.1%). Of the 495 reported incidents of ADRs, 413 (83.4%) occurred in patients on polypharmacy. Of those on two or more medications, 268 (76.6%) had at least one potential drug–drug interaction (DDI). There was an increase in the number of potential DDIs and therapeutic duplication in patients on polypharmacy.

Polypharmacy is common in medical clinics at Teaching Hospital Batticaloa. The main contributor to this is multimorbidity seen with increased age. This needs to

be acknowledged while prescribing for the elderly to reduce preventable ADRs and DDIs in this population.

Keywords**:** Polypharmacy, Comorbidity, Prescription

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