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# THE DOCTORAL RESEARCH ABSTRACTS

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**Title :** SELF-MEDICATION PRACTICE IN YEMEN AND THE ROLE OF COMMUNITY PHARMACY DISPENSERS, PHARMACY EDUCATION, AND HEALTH AUTHORITIES: A MIXED-METHODS STUDY

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Self-medication is a common practice worldwide. However, irrational use of drugs can lead to serious side effects, toxicity and drug interactions. Very few studies have been reported about self-medication practice in Yemen and no studies were found in the literature regarding the role of community drug dispensers, pharmacy education and health care authorities in Yemen. The purpose of this study is to evaluate self-medication practice in Yemen, to study the underlying reasons and associated factors, and to investigate the role of community pharmacy dispensers, pharmacy education and health care authorities in such practice. Two different approaches were used in this study. The first approach was a quantitative method; the validated questionnaire was developed and administered to consumers attending community pharmacies in Sana'a City in a cross-sectional design and different variables were investigated for possible association and correlation with self-medication practice. The second approach was an exploratory qualitative method; in-depth semi-structured interviews were conducted with four different groups; community pharmacy consumers, community pharmacy dispensers, pharmacy lecturers and health administrative staff. Four different topic guides were used for each group. For the quantitative part, SPSS version 21 was used to conduct the statistical analysis. Chi-square and multiple logistic regression were used in data analysis. For the qualitative part, thematic qualitative analysis was used. All interviews were audiorecorded, transcribed verbatim and translated to English. Quantitative findings showed that the prevalence of self-medication practice is among the highest in the world (90.7%). Self-medication with

antibiotics among consumers was found to be alarmingly high as well (87.1%). The most common predictors for self-medication were the trust among respondents toward physicians ( $p=0.001$ ) and community drug dispensers ( $p=0.001$ ), ease of access to medical centers ( $p=0.013$ ), smoking history ( $p=0.020$ ), chewing khat ( $p=0.033$ ) and death due to self-medication ( $p=0.045$ ). However, there was not any association between self-medication with antibiotics and factors like age, gender, and educational status. Irrational use of medications was common among consumers and wide range of antibiotics was used during self-medication. Qualitative findings showed that poor qualifications of most drug dispensers and irrational drug dispensing are the main reasons for the irresponsible self-medication practice. In addition, it is the responsibility of pharmacy schools and institutions to prepare students with the required knowledge and ethics before they graduate including the rational use of medication. Moreover, the lack of comprehensive laws and regulations, overlapping of responsibilities between health authorities, and the absence of clear national drug policy are among the reasons behind the irresponsible self-medication in Yemen. There is an urgent need for educational campaigns to increase knowledge and awareness among Yemeni people about the risk of irresponsible self-medication. Only qualified pharmacists should be allowed to dispense medications. Pharmacy curriculum needs to be reviewed and updated to address important health issues including self-medication. Health authorities must urgently ensure enactment of pharmacy law which will define responsibilities, offense, and penalties.