Improving Drug Prescription through Computer-Mediated Asynchronous Communication: A Case Study of Rural Hospitals in South Africa

Alfred Coleman¹ and Mary F. Coleman²

¹School of Computing, University of South Africa, South Africa
Telephone/ Mobile: 0027731370859, E-mail: colema@unisa.ac.za
²University of Limpopo (Medical University of South Africa Campus)
Telephone/ Mobile: 0027827868528, E-mail: Mary.coleman@ul.ac.za


ABSTRACT This paper investigated how doctors in state owned hospitals in South Africa communicate with pharmacist inside and outside the hospital regarding drug prescription to patients. A case study approach was used. Nine participants were purposively selected from three rural communities in the North West Province. Data was collected using semi-structured open ended interview questions. The interviewees (3 doctors, 3 pharmacists and 3 patients) were asked to tell in their own words the processes of prescribing medicine and transmitting of prescription forms to a pharmacist; the process of dispensing medication to patients; and how patients collect and administer the prescribed medication respectively. The findings revealed that paper based prescription were given to patients by the doctors to collect medication at any nearby pharmacy. However patients sometime did not present the paper prescription to the pharmacy for their medication because of their deteriorating health conditions. It was revealed that doctors receive no feedback after medication is dispensed to patients. The results led to a proposed computer-mediated asynchronous communication framework to provide systematic capturing, transferring, and effective communication between doctors and pharmacist to improve the process of drug prescription and dispensing to patients in rural hospitals.