Case Study – The effects of mental workload on community pharmacists’ ability to detect dispensing errors

Principal Investigator: Dr Jane Sutton and Hannah Family, University of Bath

Funder: PTECO

Year started: 2012

Study Aim: This study aims to investigate whether mental workload (akin to subjective workload) is related to the community pharmacist’s ability to pick up medicine errors, and if so, does the design of the task and the environment the task is carried out in affect community pharmacists’ mental workload and/or their ability to detect medicines errors? This research is being carried out because of reports that community pharmacists’ workload is too high and may be compromising patient safety.

Community Pharmacy’s Role in the Study: Observation of pharmacy activity and simulated pharmacy study

Observation of pharmacy activity

Community Pharmacists completed a mental workload diary for a day so that we could measure whether mental workload changed throughout the day.

Simulated pharmacy study

Community pharmacy teams were invited to attend the university to participate in a simulated pharmacy study for two hours, and some participants also took part in an interview about their experiences of workload and in particular mental workload and stress

This research was carried out as part of Hannah Family’s PhD studies. Dr Jane Sutton was the Principle Investigator for this study and so was responsible for guiding the design and running of the project and in the later stages supervising the analysis and reporting of the results. The research was carried out by Hannah Family who was responsible for the recruitment of participants, data collection, data analysis and report writing. Professor Weiss provided general support and advice on reporting the findings of the research and the initial design of the study.

Benefits:

Benefits for the pharmacists who took part

All pharmacists who took part in our research will be sent a copy of the final report which contains the findings of the research they took part in as well as large amounts of theory into how pharmacy work can be designed to reduce the mental workload of tasks. Being involved in this research allowed
pharmacists to ask questions about why they may miss errors, or make errors at times when they are least expecting to.

As the research was time intensive, we asked PTECO for funds to provide locum cover whilst pharmacists took part in the simulated study and the interview, which meant that pharmacists were able to take part without leaving their pharmacy understaffed or having to take a day off work to participate.

Many pharmacists were also able to use this experience towards their Continuing Professional Development requirements as the researchers spent time talking to them about the ways that mental workload may be an issue in their own practice in order for them to reflect and develop the safety of their own work.

**Benefits for the profession**

Being able to work with community pharmacists in practice ensured that our research was grounded in the experiences of pharmacists currently in practice. We worked hard with local pharmacists to design a study which studied issues that were relevant to the current community pharmacy workforce.

**Benefits for the research community**

Had we not had the support from PTECO we would have been unable to recruit a group of community pharmacists to take part in our research. This was particularly important for our research as pharmacy students (who are more readily available to take part in research) are not representative of pharmacists in practice as expertise is directly linked to individual's experiences of mental workload. It is very important that the research that is conducted is representative and generalisable to the current community pharmacist workforce.