Impact of Brown Bag Review on Drug-Related Problems in a Local Hospital
Setting: a Randomized Controlled Study
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Introduction
Polypharmacy has long been a problem and brown bag review has been proven to be a good method to reveal drug-related problems and solved it.

Objectives
The objective of the study was to investigate the prevalence of hidden drug-related problems (DRPs) by comparing the number of baseline DRPs identified in the intervention and control group and the impact of brown bag review.

Methodology
Patients who had follow-up in Tseung Kwan O Hospital SOPD were recruited if they had more than 6 chronic medications. They were randomized into intervention or control group. For intervention group, brown bag review would be done before their next physician’s visit to check for DRPs. Compliance would be checked by questioning, pill counts and using 8-item Morisky Medication Adherence Scale. Interventions would be made if necessary. A second review at 8-week after their physician visit would be done as follow-up. Patients in control group received routine care.

Result
A total of 60 patients were recruited (27 in intervention and 33 in control group). A significant higher number of DRPs were found in the intervention group (n=74 vs n=39, p=0.001). The most common problem found was due to “suboptimal drug effect”, which was mainly contributed by “inappropriate administration time” or “disease deterioration”. Second most common problem was due to “adverse drug event (non-allergic)”. In the 2nd review, the number of DRPs significant reduced in intervention group (n=74 vs n=21, p<0.001) but remained similar in control group (n=39 vs n=31, p=0.205). Most of the DRPs were solved by patient education. Twelve
interventions were made to doctors with a 75% acceptance rate. After pharmacist's counseling, compliance was significantly improved with a significant reduction in Morisky score (-1.71, p<0.001). Many DRPs might be hidden during routine care without detail questioning. Brown bag review provided by pharmacists served as a useful tool to discover such DRPs and solved them. Patients like this service and future implementation of this service could be considered.