

Pharmacoconomists contribute to counselling and identifying drug-related problems at community pharmacies

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A study mapping the counselling activities in community pharmacies with a focus on identifying drug-related problems (DRPs)

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Background

Pharmacoconomists (the Danish title for pharmacy technicians) are the largest group of staff at Danish community pharmacies. They play a vital role in counselling customers on prescription medication, over-the-counter (OTC) medication and non-medical products.

This is the first study carried out to specifically analyse how pharmacoconomists contribute to counselling and how they identify drug-related problems at Danish community pharmacies.

The study was carried out in collaboration between the Danish Association of Pharmacoconomists, the Association of Danish Pharmacies and Pharmakon (Danish College of Pharmacy Practice).

Method

The study is descriptive. 76 pharmacoconomists from 38 community pharmacies were included from all Danish regions. The pharmacies were selected in such a way that the number of included pharmacies in each region reflected the number of pharmacies as much as possible.

The participating pharmacoconomists registered data on all their customer visits to the community pharmacies for five days over a four-week period between January and March 2019. They registered the visits on different days of the week, so that their registration covered the pharmacy's opening hours.

At the beginning of the study period, the pharmacoconomists were introduced to the study in a webinar. They received training on registration consisting of an instruction and eight cases that they had to solve before starting registration. During the study period the research group held two Q&A webinars and could further be contacted for support.

Data analysis

Data was analysed in SPSS version 24.



Figure 1: A counselling situation

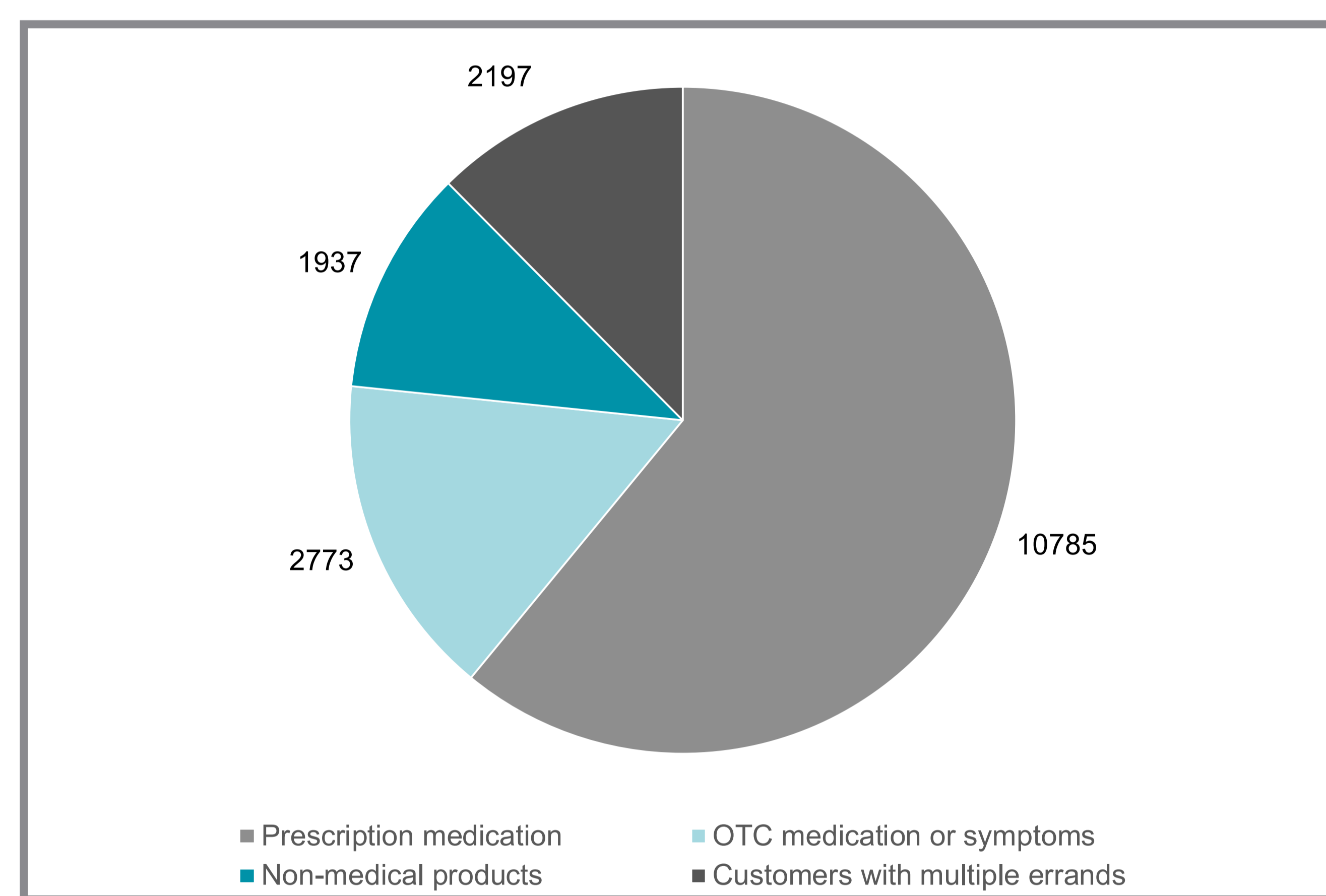


Figure 2: Categories of customers in the study

Results

- Data on a total of 17,692 customers was registered. Of these, 61.0% (n=10,785) requested prescription medication, 15.7% (n=2,773) requested OTC medication or presented a symptom, 10.9% (n=1,937) requested non-medical products and 12.4% (n=2,197) asked for combinations of the three categories (Figure 2).
- The customers had an average of 1.4 errands per visit to the community pharmacy. 10,417 (58.9%) customers received counselling on an average of 2.2 subjects*.
- One or more DRPs were identified for 15.8% (n=2,800) of the total population, 17.8% (n=1,917) of customers requesting only prescription medication, 12.7% (n=352) of customers requesting only OTC medication or with OTC-related symptoms and 6.9% (n=133) of customers requesting only non-medical products.

	All customers with DRPs, (N=2,800) n (%)	Customers with DRPs requesting only prescription medication, (N=1,917) n (%)	Customers with DRPs requesting only OTC medication or presenting a symptom, (N=352) n (%)	Customers with DRPs requesting only non-medical products, (N=133) n (%)
Treatment effectiveness and treatment safety problems				
Inappropriate drug/product	163 (5.8%)	28 (1.5%)	62 (17.6%)	36 (27.1%)
Contraindication	30 (1.1%)	7 (0.4%)	11 (3.1%)	2 (1.5%)
Double dose	62 (2.2%)	27 (1.4%)	16 (4.5%)	2 (1.5%)
Interaction	51 (1.8%)	19 (1.0%)	12 (3.4%)	3 (2.3%)
Drug dose too high	81 (2.9%)	45 (2.3%)	18 (5.1%)	3 (2.3%)
Drug dose too low	96 (3.4%)	44 (2.3%)	26 (7.4%)	7 (5.3%)
Duration of treatment too long	81 (2.9%)	26 (1.4%)	31 (8.8%)	1 (0.8%)
Duration of treatment too short	50 (1.8%)	25 (1.3%)	13 (3.7%)	1 (0.8%)
Adverse reaction	257 (9.2%)	156 (8.1%)	33 (9.4%)	8 (6.0%)
Symptom that requires a visit to a General Practitioner (GP)	179 (6.4%)	64 (3.3%)	61 (17.3%)	11 (8.3%)
Problem with practical use of drug/product	116 (4.1%)	75 (3.9%)	20 (5.7%)	8 (6.0%)
Compliance problem	214 (7.6%)	153 (8.0%)	18 (5.1%)	7 (5.3%)
Logistical problems				
Prescription is incomplete or inaccurate	179 (6.4%)	166 (8.7%)	-	-
Product or prescribed drug not available	578 (20.6%)**	436 (22.7%)**	44 (12.5%)**	28 (21.1%)
Prescription not available	673 (24.0%)	586 (30.6%)	-	-
Other problems				
Other problems	265 (9.5%)	60 (3.1%)	-	16 (12.0%)
Total	3,075 (104.0%)***	1,917 (100.0%)	365 (103.6%)***	133 (100.0%)

Table 1: DRPs in the total population and in the three categories of customers. The most frequent DRPs are highlighted (threshold value 8,0 %).

Conclusion

Pharmacoconomists contribute to medication safety by counselling customers and identifying DRPs.

Customers requesting prescription medication are the subgroup with most DRPs, followed by customers requesting OTC medication or presenting a symptom. Customers requesting non-medical products are the subgroup with the lowest number of DRPs.

The most frequent DRPs related to treatment effectiveness and safety vary between the subgroups. "Adverse reactions" and "compliance problems" are the most common DRPs for customers requesting prescription medication. The most common DRPs relating to OTC medication or symptoms are "inappropriate drug/product", "symptom that requires a visit to the GP", "adverse reactions" and "duration of treatment too long".

Regarding customers requesting non-medical products the most frequent DRPs are "inappropriate drug/product" and "symptom that requires a visit to the GP".

* For more results related to counselling, please see poster POS-CPS-074 /FIPSUB-2167: Pharmacoconomists contribute to counselling and handling drug-related problems at community pharmacies.

** The high number of unavailable drugs in pharmacies is a known and an increasing problem. The Danish Medicines Agency has detected a supply shortage, which is not critical – but challenging and an inconvenience for the customers, medical professionals and pharmacies alike.

*** The percentage is over 100% due to the fact that some customers had more than one DRP.