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Opinions Of Community Pharmacists About Collaboration With General Practitioners: A Descriptive Pilot Study After A New Legislation In Turkey

Serbest Eczacıların Aile Hekimleri ile Çalışmaları Konusundaki Düşünceleri: Türkiye'deki Yeni Yasal Düzenleme Sonrası Tanımlayıcı Bir Pilot Çalışma

Bayraktar Ekincioglu et al. Pharmacist Collaboration with General Practitioners

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Abstract

Objectives: Committed legal regulations in primary healthcare services have resulted in certain issues and requirements about community pharmacy practices in Turkey. A professional collaboration between general practitioners and pharmacists are essential for the continuity of care in primary care settings. Therefore, tThis study aims to explore community pharmacists' opinions on collaborative care along with new primary care regulations.

Materials and Methods: A web-based questionnaire was implemented during a period of five months to a voluntary sample of community pharmacists. The questionnaire was consisted of multiple-choice questions that allowed participants to select more than one answer wherever appropriate.

Results: One hundred ninety-seven community pharmacists answered the questions; 66% were younger than 39 years and had less than 15 years' experience in the profession. In general, the pharmacists are willing to involve in maintaining continuity of care, especially in patient counselling. However, 10.7% of participants indicated main reasons for not being actively involved in patient care as 'mainly deal with explaining prescription copayment procedures' and 'having unfavourable attitudes of other health care professionals'. They believed that their contributions were restricted by laws and regulations (14.2%) as well as declined perceived reputation (53.8%) of the profession among the public.

Conclusion: Revealing misperceptions among patients and healthcare professionals, overcome limitations of current practice and understanding of each profession's responsibilities may lead to formation of new and more effective model of care.

Keywords: Patient-centred practice, interprofessional, collaboration, pharmacist, general practitioner

Öz

Amaç: Birinci basamak sağlık hizmetlerinde yapılan yasal düzenlemeler, serbest eczacılık hizmetlerinde bazı hususların ve ihtiyaçların ortaya çıkmasına neden olmuştur. Birinci basamak sağlık hizmetlerinde eczacılar ve aile hekimleri arasındaki profesyonel işbirliği, sağlık bakım hizmetinin devamlılığının sağlanması için gereklidir. Bu nedenle bu çalışma, serbest eczacıların birinci basamak sağlık hizmetlerindeki yeni düzenlemeler ile, işbirliği şeklindeki bakım hizmetleri hakkındaki görüşlerini ortaya koymayı amaçlamaktadır.

Gereç ve Yöntem: İnternet sayfası tabanlı anket çalışması, 5 ay süre ile, gönüllü olarak katılım sağlayan bir serbest eczacı örnek lemine uygulanmıştır. Anket, çoktan seçmeli sorulardan oluşmaktadır ve gerektiğinde katılımcıların birden fazla seçenek seçmesine olanak sağlamaktadır.

Bulgular: Çalışmada, 197 serbest eczacı soruları cevaplamıştır; katılımcıların %66'sı >39 yaş ve 15 yıldan daha az teerübesi olan eczacılardır. Genel olarak, eczacılar bakımın devamlılığını sağlamak konusunda, özellikle hasta danışmanlığında, katılımcı olmaya istekli olduklarını belirtmiştir. Ancak, katılımcıların %10.7'si, aktif olarak hasta bakınına katılamamanın temel nedeninin; 'reçete geri-ödeme prosedürleri ile uğraşmak' ve 'diğer sağlık çalışanları tarafından teşvik edici olmayan tavırlar' olduğunu belirtmiştir. Katılımcılar, bu katkılarının varolan yasal düzenlemeler (%14.2) ve toplumda azalan saygınlık (%53.8) nedeniyle kısıtlandığına inanmaktadır. Sonuç: Hastalar ve sağlık çalışanları arasında varolan yanlış algıların açığa çıkarılması, varolan hizmetteki sınırlamaları ortadan kaldıracak ve her mesleğin sorumluluklarının anlaşılması, yeni ve daha etkin bir bakım modelinin oluşturulmasına yardımcı olacaktır.

Anahtar Kelimeler: Hasta-odaklı uygulama, mesleklerarası, işbirliği, eczacı, aile hekimi

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Introduction

An improvement in the health care system depends on stakeholders who perform the required responsibilities and expand professional competencies and skills. In terms of chronic disease management, both primary and secondary care health professionals should play active roles in patient care.

In Turkey, the National Health Service in primary care has been revised and general practitioners' (GPs) roles were expanded since 2010. The new legislation on primary health care process was introduced in 2013 and revised in 2015. By the January 2013, electronic prescribing was also started to implement in Turkey. Previously, general practitioners were responsible for monitoring of chronic diseases as well as preventive health services along with the nurses in primary care settings. Before the new legislation, GPs practising in primary care settings were only allocated in a small and a limited number of community clinics in a city where they only have close contact with nurses for a patient care process. Patients were free to attend any community clinics for their monitoring and prescriptions according to their preferences. After the legislation, the patients are obliged to attend a certain healthcare centre and monitored by an assigned general practitioner according to their home addresses and are not allowed to change their doctor within the first 3 months. Patients are guided to visit GPs first before attending to the secondary or tertiary care settings where health expenses could not be covered by the national health insurance. A group of general practitioners (e.g. minimum 2 doctors) are also allocated in certain healthcare centres according to the number of population and patients to be served. They are entitled to serve a minimum of 3500-4000 patients, work in a total of 40 hours per week depending on a total number of population in a district. If assigned number of patients for general practitioners are declined below 1000 patients on consecutive minimum 2 months, their agreements with the national health service becomes invalid. With an implementation of new legislation, the roles are merged between general practitioners and nurses, where monitoring of chronic diseases are focused by doctors and preventive health services are undertaken by nurses which led to disunity of health services in primary care. There is also a growing interest in clinical pharmacy practice about expanding the role of pharmacists to be actively involved in patient care process. Unlike the most European countries, clinical pharmacy is a new and emerging concept in Turkey and has gained the attention of pharmacists as well as other health care professionals.

According to a report of the Turkish Ministry of Health, patients' primary care visits increased to 2.7 visits per patient/year in 2010 compared with 0.9 visits per patient/year in 2002.(1) In a recent study conducted by Ciceklioglu et al.(2) indicated that GPs' professional identities have shifted to businesspeople from healers, workloads are increased and more patients behave as demanding consumers by the results of the Turkish Health Transition Programme. Given the fact that there are large number of community pharmacists, a rational utilisation of pharmacy services is inevitable. Therefore, novelties in primary care services create opportunities for both professions in terms of shared responsibilities in the patient care process.

The role and contribution of pharmacists in patient monitoring has been well documented in literature mainly in chronic disease management(3-5); however, there was a low tendency to report the perceptions, attitudes and opinions of health care providers. Wüstmann et al.(6) determined the views and attitudes of pharmacists and GPs in Germany regarding collaboration towards each other. They concluded that although the frequency of contact is low, there is a good trust between both professions. Moreover, pharmacists and GPs regard that their responsibilities are important in maintaining patient adherence to drug treatment in the long-term, but more frequent co-operation is necessary.

Bryant and colleagues explored the GPs' perceptions on expanding role of community pharmacist in clinical medication reviews. They showed that GPs regarded pharmacist's skills as valuable, supportive in repeat dispensing schemes and helpful in patients' medication management; however they indicated that value of services provided by a pharmacist should be balanced between improved patient outcomes and resources (time and funding) required.(7)

On the other hand, it has been shown that (8) more than half of the GPs support the involvement of pharmacists in the activities of providing public health education, contacting GPs on matters related to prescribing and prescription errors and referring patients who exhibit drug-related problems. However, less than half have doubts regarding pharmacists' role in a smoking cessation programme and provision of drug information to doctors. According to Van and colleagues (9), attitudes towards collaboration are strongly related to communication, mutual respect, willingness to work together and the recognition of roles, which are influenced by trust and expectation. One of the common barriers indicated by Hughes and McCann (10) was the professional image of community pharmacists that also affects public perception and awareness with regards to the care that they receive from pharmacists. Furthermore, the integration of pharmacists and remuneration are also considered as barriers.(11)

The factors affecting pharmacist—GP collaboration have also been identified by Valera et al.(12) and showed the associated factors as perception of usefulness, the clinic manager's interest, professional attitude, geography and legislation. Similar findings have been documented by Saramunee et al.(13), indicating that community pharmacies are a good source for advice on medicines and minor ailments but were less supportive in public health services. The main barriers that can interfere with service utilization were listed as the perceptions of both the general public and other health providers towards pharmacists' competencies, privacy and confidentiality in pharmacies, high dispensing workload and inadequate financial support. Therefore, a clearer understanding of the perceptions of health professionals is crucial for establishing a continuous collaboration in the patient care process.

Bryant at al.(14) indicated that there are significant barriers for community pharmacists in order to get involved in clinical services because of the lack of acceptance of clinical roles in disease management. However, GPs strongly agreed with pharmacists' role in patient counselling, education, compliance and reporting adverse events.

There were many studies reported GPs' perspectives and opinions on a collaborative care, however not many studies have searched for pharmacists' opinions. It is important to reveal the level of willingness of participation and professional trust in the competencies of pharmacists in collaboration. There was also no study conducted in Turkey among health professionals in order to identify their opinions and perceptions on shared care process after a new health transition programme. Therefore, this study aims to identify community pharmacists' opinions on a shared care process and their willingness to get involved in patient monitoring in order to improve quality in primary health care settings.

Materials and Methods:

The study is a survey which was undertaken via a web-based questionnaire (www.teb.org.tr) by the support of the Turkish Pharmacists Association (TEB). The questionnaire was initially designed by researchers in a view of literature; send by e-mail to 20 pharmacists from different cities in order to clarify the meaning and understanding of questions. According to the responses and comments from pharmacists, some questions were re-worded and some others were omitted in this study. The revised final questionnaire was consisted a total of 27 questions; nine were regarding pharmacist's/pharmacy's demographics, and other questions were related to pharmacist's opinions on implementation of a new legislation and collaboration with general practitioners. The participants were allowed to choose more than one answer wherever appropriate. The final questionnaire was uploaded and retained on the TEB web page during a period of July to December, 2013.

It was not feasible to contact with all community pharmacists in a study period, therefore volunteered and available sample of 200 pharmacists were intended to contact for this descriptive study. The sample size calculation was not performed for this pilot study since the questionnaire was aimed to identify opinions, not to measure attitudes or extent of changes in practice. There were no similar studies undertaken among the Turkish pharmacists previously, therefore the researchers did not have any reference value to calculate a sample size based on any assumptions for this study. Community pharmacists who are willing to participate in the study entered the web system via either with social security institution identification number or prescription issue entry number; then filled the questionnaire on the web page of the Turkish Pharmacists Association.

The ethics committee approval was not sought for this study and it was undertaken collaboratively with the Turkish Pharmacists Association. The association was an official representative council of the pharmacists in Turkey, and the survey was an intent of the association in order to explore the perspectives of its members about newly emerged situation in healthcare system in order to improve pharmacy services to be re-established in Turkey.

At the end of the data collection period, the responses were collected through a web-based programme and the data was analysed by statisticians using SPSS-11.

Results:

During five-month period, a total of 200 pharmacists responded to the questionnaire although three questionnaires were excluded from the analysis due to lack of data. Two thirds of the pharmacists who participated in this study were younger than 40 years of age and had less than 15 years' experience in the profession. The majority of pharmacies were located near a GP practice and dispensed 26–50 prescriptions per day. The details of the participants are summarised in Table 1.

Influence of New Legislation on Pharmacy Practice

According to the study results, a change in health care legislation in Turkey has caused 19.8% of the pharmacists to change the location of their pharmacies near to a GP practice. Pharmacy health services were also affected by this new legislation and its impact on pharmacies was in both extend. More than 45% of the pharmacists agreed that the number of drug varieties (46.2%), dispensed drugs that should be prescribed by a specialist (47.2%) and

patients' visit to pharmacy for counselling (48.7%) are increased, whereas the number of dispensed prescriptions (41.6%) is decreased.

Professional Interactions with General Practitioners

In this study, most of the pharmacists reported the frequency of their contact with GPs about patients' prescriptions and health status as 1–5 times per week (43%) or never (19%). Instead, the majority of GPs has never (52%) or 1–5 times per week (36%) contact to pharmacists. The pharmacists who contacted GPs 1–5 times per week mainly dispensed 26–50 prescriptions per day (50.5%) and were located near the GP practice (48.2%), a hospital/health centre (22.3%), on a main street (22.3%) or in a city centre/near a shopping mall (7.2%). Interestingly, the pharmacists who never contacted GPs were also located near the GP practice (51.3%). There was no difference between pharmacists who contacted and did not contact GPs in terms of gender, age, the number of dispensed prescriptions and the location of pharmacy (p < 0.05). Only 16.2% of the pharmacists stated having a positive communication with GPs (Table 2).

With regards to the common issue of communication between a pharmacist and GP, GPs mainly contact pharmacists regarding reimbursement status of a drug by the National Social Security (55.8%), whether a patient has sufficient medication until the next visit (13.7%) or eligibility of a drug in the market (11.7%). Similarly, pharmacists contacted GPs if any inconsistency is recognized between a prescription and a patient's health report (74%) or for correcting any errors in the prescriptions (16.2%). Unfortunately, neither GPs nor pharmacists contacted each other regarding drug usage, dose and dosing error or any potential drug interactions, according to the pharmacists' opinion.

In consideration of the pharmacist–GP relationship, although over a half of the pharmacists indicated that their professional relationship with GPs has not changed by this new legislation, the proportion of pharmacists who believed that communication regarding a patient referral to a GP and a GP's referral to a pharmacy for counselling (31% vs 24.4%) and the provision of drug information by a pharmacist to GPs (28.4%) are increased.

Perceived Roles of Pharmacists in Collaborative Care

The participants considered the role of a pharmacist in drug treatment as counselling/providing drug information (47.2%), joint decision-maker with doctors (28.4%), monitoring drug usage (17.8%), a decision-maker (3.6%) and pharmaco-economy supervisor in drug usage (3.0%). The participants who considered pharmacist as a consultant (93 out of 197) and a joint decision-maker (56 out of 197) were mainly 31–39 years (38 out of 93 vs 19 out of 56) and had 6–15 years of experience (40 out of 93 vs 25 out of 56). The pharmacists who were over 50 years old (26 out of 197) considered the pharmacist's role more likely to be counselling/providing drug information (17 out of 26).

Eighty-four percent of pharmacists (n = 165, of whom 42% were female and 58% were male; 38% were 31–39 years and 29% were <30 years) believed that the role of pharmacists in counselling should focus on providing information about drugs and patients' diseases. Nevertheless, the provision of information by pharmacists about drug interactions, the selection of an appropriate drug, dose and dosage forms were not acknowledged by the participants.

With respect to the influence of new legislation on the patient–pharmacist relationship, more than half the pharmacists reported that communication with patients is increased when it comes to providing information about drugs and reimbursement status. Although 50.8% of the participants indicated that the perception of pharmacists' roles in preventive public health services (smoking cessation, vaccines, healthy nutrition) are not changed, an increased perception was also reported by 37.6% of the responders.

Preferred Roles of Pharmacists in Collaborative Care

The participants (%) believed that if they have access to detailed patient medical records through the National Social Security System they can;

- counsel about public & preventive health (family planning, vaccines, obesity and smoking cessation) (65.5%).
- provide drug information to doctors about appropriate drug and dosage forms as well as drug interactions (60.9%),
- advice drugs for a minor illness (such as cold & flu, acne, fungal infections and scabies) (79.2%) to patients.
- maintain patient care in collaboration with doctors according to the treatment guidelines (58.9%), review patient's drugs and laboratory results and refer to doctor early if required (65%) work on pharmacovigilance (75.6%)
- help to increase patient adherence (70.1%),
- dispense repeat prescriptions without the need for a patient to be seen by a doctor (61.9%).

The participants were asked to give their opinions on their active roles in a patient's drug treatment, including over-the-counter drugs. Approximately 76% of the participants (61 female, 88 male) believed to have active roles in drug treatment, of which 46% generally works near a GP's practice and receives and/or dispense 26–50

prescriptions per day. However, a majority of the pharmacists (54%) stated not involved in collaborative drug treatment process in daily practice. (Table 3).

Moreover, the participants highlighted professional needs in order to provide counselling services to patients and health care professionals. Forty-two percent of participants indicated that they should be acquainted with the legal regulations on drug reimbursement, whereas 37% believed that they should have a continuous/uninterrupted transfer of electronic patient records from GPs. Only 3% reported that they needed to follow professional educational programs in order to provide such services.

Reimbursement of Pharmacy Services

In regards to reimbursement of such services provided by pharmacy, participants indicated that reimbursement can be gradually incremented on basis of a number of prescriptions and/or drug boxes (34.5%), the number of health services provided and documented by a pharmacist (20.3%) or a fixed amount according to the number of working hours per month (18.3%).

Discussion

Along with an initiation of new legislation, there would be an opportunity for close collaboration between pharmacists and GPs in patient monitoring process and other primary healthcare activities.

The previous studies have already focused on potential barriers for communication among healthcare professionals and collaborative healthcare services in different practice settings, such as medication review, medicine management, patient /health education(15) and prescribing / prescription errors and early referrals to the GPs.(8, 11, 16)

A study from Malaysia has shown similar findings where a majority of community pharmacists were still focusing on counselling for nutritional supplement, cough and cold and diabetic, providing screening tests for blood pressure and blood sugar level. Generally, GPs were supportive towards the involvement of pharmacists in extended pharmacy services but they were uncertain about the knowledge and skills. Most of the GPs indicated that they would like to collaborate with community pharmacists on improving patient therapeutic outcomes (~55%) and welcome patient referral from community pharmacies for further medical evaluation (~70%). However identified barriers was listed as; lack of time, shortage of man power, lack of collaboration between healthcare professionals, legal and regulatory constraints and lack of self-efficacy.(17)

According to the results of this study, communication between pharmacists and GPs was infrequent and described as distant and did not allow any further discussion; furthermore, collaboration in decision making or shared information during patient care did not seem to be feasible in routine practice. Information shared by health professionals was mainly on technical or bureaucratic issues rather than individual professional knowledge. Therefore, the perception of each profession and their expectations were restricted, it would take time to establish the inter-professional trust between GPs and pharmacists in taking responsibilities of patient care.

It was also reported in this study that the community pharmacists have conflicting opinions on working in collaboration with GPs in primary care. Although there has been apparent enthusiasm about being involved in patient care, pharmacists were not in favour of providing such services without any reimbursement. Moreover, 10.7% of participants indicated that they are exhausted to explain the prescription co-payment procedures, unfavourable attitudes of other health care professionals which were the main reasons for not being actively involved in drug treatment.

Community pharmacists were enthusiastic about providing drug information; however, they were reluctant to take an active role in patient monitoring because of legal limitations, reimbursement problems and perceived reputation of community pharmacists among the public.

By an implementation of new legislation 19.8% of the pharmacists had to change the location of their pharmacies. This percentage was not surprising because the number of prescriptions were used to dispense by only one pharmacy store previously where more than 4000 population receive health care from one community clinic. By a dissemination of increased number of GP practices around different location, pharmacies also had to change their location in order to maintain their income and to sustain the quality of pharmacy services. It is necessary to indicate that all community pharmacists are self-employed in Turkey. Therefore, macro- or micro-economical changes may affect pharmacies' income due to relatively high leasing and low fee for professional counselling.

Study Limitations

A main limitation of the study was the number of participants. The questionnaires were not delivered to pharmacists personally, instead it was uploaded on the web-site on the 'news' section of the Turkish Pharmacists Association web page. The pharmacists generally visit the web-site in order to reach updated information about legal procedures in pharmacy practice or reimbursement of particular drugs; not to fill a questionnaire. Therefore, not many pharmacists were likely to participate into the study and the web-based questionnaire was not appropriate for this group of pharmacists.

The study was undertaken soon after the new legislation has implemented, therefore the participants might not have clear/robust views about its impact. It would be better to surrogate the questions in future where implication of the legislation is more sustained. However, the results of this study might not be the reflections of opinions among all pharmacists, it still can be considered as critical overlooked on pharmacy practice in primary care. It would also be interesting and invaluable to reflect and compare a sample of GPs' views and expectations along with the participated pharmacists at the same time which would create a perspective for future studies. However, it could not be manageable for this study; therefore, it can be considered as another limitation. It is believed that the study results managed to highlight some of the main problems and eventual solutions for a shared care process in primary care. By the results of this study, another pilot project was initiated by the Turkish Pharmacists Association in order to identify pharmacist's role in monitoring of hypertensive patients in collaboration with GPs. The professional bodies found an opportunity to lead the legal authorities and guide the pharmacists in terms of professional improvements in the country.

Conclusion

Such practice implications are unique for pharmacists where the concept of clinical pharmacy practice is not well-established in countries such as Turkey. Therefore, determination of needs and expectations; identification of barriers and challenges in local/national health care settings will expand the ideas of practitioners in improving collaborative care.

Local implementations of the European health care models for the continuity of care in primary care settings may enlighten different countries in order to enhance health services, however variations in regulations of health systems may lead to occurrence of reluctance in contribution. An integration of clinical governance within a primary care process by active involvement of pharmacists may yield to a shared-decision making in drug therapy, reduce workloads of GPs and also enhance patient satisfaction.

Community pharmacists are willing to participate in patient care process and they are invaluable position to provide drug information and monitor patients' health outcomes in pharmacies. A delegation of responsibilities by laws and regulations would give confidence to the pharmacists and maintain a collaborative care for patients. A communication pathway between GPs and pharmacists should be re-arranged by a health care model which is not only designed according to technical issues on prescriptions, but also to mutual professional expectations of each profession.

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References:

- 1. The Republic of Turkey The Ministry of Health. The Ministry of Health of Turkey Health Statistics Year Book 2010. Ankara: The Ministry of Health Refik Saydam Hygiene Center Presidency School of Public Health.; 2011. Report No.: Contract No: 832.
- 2. Ciceklioglu M, Ocek ZA, Turk M, Taner S. The influence of a market-oriented primary care reform on family physicians' working conditions: A qualitative study in Turkey. Eur J Gen Pract. 2015;21(2):97-102.
- 3. Chua SS, Kok LC, Yusof FAM, Tang GH, Lee SWH, Efendie B, et al. Pharmaceutical care issues identified by pharmacists in patients with diabetes, hypertension or hyperlipidaemia in primary care settings. Bmc Health Serv Res. 2012;12.
- 4. Tan ECK, Stewart K, Elliott RA, George J. Pharmacist services provided in general practice clinics: A systematic review and meta-analysis. Res Soc Admin Pharm. 2014;10(4):608-22.
- Geurts MME, Talsma J, Brouwers JRBJ, de Gier JJ. Medication review and reconciliation with cooperation between pharmacist and general practitioner and the benefit for the patient: a systematic review. Brit J Clin Pharmaco. 2012;74(1):16-33.
- 6. Wustmann AF, Haase-Strey C, Kubiak T, Ritter CA. Cooperation between community pharmacists and general practitioners in eastern Germany: attitudes and needs. Int J Clin Pharm-Net. 2013;35(4):584-92.
- 7. Bryant L, Coster G, McCormick R. General practitioner perceptions of clinical medication reviews undertaken by community pharmacists. J Primary Health Care 2010;2(3):225-33.

- 8. Sarriff A, Nordin N, Hassali M. Extending roles of community pharmacists: views from general medical practitioners. Med J Malaysia. 2012;67(6):577-81.
- 9. Van C, Costa D, Abbott P, Mitchell B, Krass I. Community pharmacist attitudes towards collaboration with general practitioners: development and validation of a measure and a model. Bmc Health Serv Res. 2012;12.
- 10. Hughes CM, McCann S. Perceived interprofessional barriers between community pharmacists and general practitioners: a qualitative assessment. Brit J Gen Pract. 2003;53(493):600-6.
- 11. Freeman C, Cottrell WN, Kyle G, Williams I, Nissen L. Integrating a pharmacist into the general practice environment: opinions of pharmacist's, general practitioner's, health care consumer's, and practice manager's. Bmc Health Serv Res. 2012;12.
- 12. Rubio-Valera M, Jove AM, Hughes CM, Guillen-Sola M, Rovira M, Fernandez A. Factors affecting collaboration between general practitioners and community pharmacists: a qualitative study. Bmc Health Serv Res. 2012;12.
- 13. Saramunee K, Krska J, Mackridge A, Richards J, Suttajit S, Phillips-Howard P. How to enhance public health service utilization in community pharmacy?: General public and health providers' perspectives. Res Soc Admin Pharm. 2014;10(2):272-84.
- 14. Bryant LJM, Coster G, Gamble GD, McCormick RN. General practitioners' and pharmacists' perceptions of the role of community pharmacists in delivering clinical services. Res Soc Admin Pharm. 2009;5(4):347-62.
- 15. Tan ECK, Stewart K, Elliott RA, George J. Pharmacist consultations in general practice clinics: The Pharmacists in Practice Study (PIPS). Res Soc Admin Pharm. 2014;10(4):623-32.
- 16. Bidwell S, Thompson L. GPs, community pharmacists and shifting professional boundaries. N Z Med J. 2015;128(1414):19-26.
- 17. Ooi GS, Hassali MAA, Shafie AA, Kong DC, Mak V, Chua GN. Assessment of Community Pharmacy Services in Malaysia: Perspectives from Community Pharmacists, General Practitioners, Consumers and Health Policy Stakeholders. Value Health. 2016;19(7):A827-A.

Table 1. Characteristics of the participants in the study

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	N (%)
Gender	
Male	118 (59.9)
Female	79 (40.1)
Age	
≤30	53 (26.9)
31–39	77 (39.1)
40–49	41 (20.8)
≥50	26 (13.2)
Year of experience in the profession;	
≤5 years	42 (21.3)
6–15 years	89 (45.2)
16–25 years	39 (19.8)
≥26 years	27 (13.7)
Educational Level;	
University	168 (85.3)
MSc/PhD (postgraduate qualification)	29 (14.7)
Location of pharmacy;	
Main street	48 (24.4)
Near hospital/medical clinic	35 (17.8)
Near GP practice	92 (46.7)
City centre/in the mall	22 (11.2)
Number of prescriptions dispensed per day	
1–25	34 (17.3)
26–50	89 (45.2)
51–75	49 (24.9)
76–100	19 (9.6)
101–125	4 (2.0)
126–150	1 (0.5)
≥151	1 (0.5)
Number of patients' visit to the pharmacy per day	
1–25	19 (9.6)
26–50	55 (27.9)
51–75	49 (24.9)
76–100	45 (22.8)
101–125	17 (8.6)
126–150	8 (4.1)
≥151	4 (2.0)

Table 2. Pharmacists' professional communication with general practitioners (GPs)

Behaviours of the GPs perceived by pharmacist	N (%)
Distant relations and asking questions to GPs not allowed	69 (35.0)
Closed to any kind of communication	68 (34.5)
Descriptive, informative and constructive	32 (16.2)

Table 3. The pharmacists' reasons for not being able to be involved in a patient's drug treatment

Reasons	N (%)
Too much time to explain the prescription co-payment	21 (10.7)
Lack of patients' time	4 (2.0)
Slow data entrance system of the National Social Security System	7 (3.6)
No reimbursement for such specific service	2 (1.0)
Unfavourable attitudes of other health care professionals	21 (10.7)
Unfavourable attitudes of patients	8 (4.1)
Legal limitations	28 (14.2)
Perceived status of the pharmacy profession among the public	106 (53.8)