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Abstract

Background: The unified prescription was introduced in Lebanon in 2011; an aim was to save on medication expenditure.

Aims: The aim of this study was to evaluate the views of community pharmacists on the effect and usefulness of the unified prescription.

Methods: A cross-sectional telephone survey of community pharmacists from all governorates of Lebanon was conducted. A questionnaire was used to collect demographic data, pharmacists' views on the effect of the unified prescription on their work, the percentage of prescriptions in which the prescriber had indicated that the medicine should not be substituted with a generic equivalent and the percentage needing clarification from the prescriber. Face-to-face interviews were held with 12 pharmacists to explore their views further.

Results: Of 251 pharmacists interviewed, 56.8% did not think the unified prescription was useful, 34.8% thought it complicated their work and 24.0% that it reduced their autonomy. The in-depth interviews showed that autonomy was perceived to be restricted because of the difficulty in convincing patients to accept a substitute generic medicine, which the unified prescription allowed. The unified prescription complicated pharmacists' work because of increased paperwork and the need for more storage. Pharmacists felt that the large number of

prescriptions in which the prescriber had indicated that the medicine should not be substituted undermined the purpose of the unified prescription.

Conclusion: The implementation of the unified prescription was not considered a success by community pharmacists in Lebanon. Efforts are needed to improve communication with prescribers and educate the public about pharmacists' role and generic medicines.

Keywords: pharmacists, prescriptions, drugs, generics, Lebanon

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Introduction

In 2011, a new unified prescription was introduced in Lebanon, as a result of which the pharmacy profession had to make some substantial changes to their practices. This new policy was designed to improve health care services, in which pharmacists play an important role; however, no studies have evaluated the effect of the unified prescription on the daily practice of community pharmacists and whether they were able to adapt to the changes.

The triplicate prescription form was instated by ministerial decision no. 1925 issued by the Lebanese government in 2011. This decision introduced the unified prescription form with three copies: white for the patient, pink for the pharmacist and yellow for the physician. Its objective differed from that of the triplicate prescription programme in North America.

Triplicate prescription forms have been used in the United States of America (USA), Canada and other countries to monitor certain drugs with high potential for abuse. For instance, in 1989, New York State mandated triplicate prescription for benzodiazepines (1,2). The triplicate prescription allows the monitoring of prescribing practices, provides feedback on targeted drugs and identifies areas of misuse (3).

The Lebanese government's intention with the unified prescription programme was to reduce medication costs by increasing the use of cheaper generic medicines. The programme would empower pharmacists to suggest substitution to their clientele who were presenting prescriptions to be filled (4). Relieving the burden on public finances is essential, particularly as expenditure on prescription drugs in Lebanon is estimated to rise to US$ 2.71 billion in 2020, accounting for 52% of total health expenditure (4).

With generic substitution at the core of the unified prescription programme, pharmacists are supposed to play a key role in addressing patients' enquiries about generic drugs and correcting any misconceptions on their effectiveness and value (5,6). The usually lower cost of generic medicines is often mistakenly interpreted as inferiority of these medicines compared with proprietary medicines with known brand names. This obstacle for substitution is more obvious with lower educational level and socioeconomic status of patients (7–9). As such, pharmacists are in a unique position to educate patients about bioequivalence studies and good manufacturing practices that generic medicines undergo to overcome any mistrust patients may have about accepting drug substitution (9,10).

The implementation of the unified prescription was expected to affect the physician–pharmacist–patient relationship, especially the pharmacists who are the link between the prescriber, the patient and the medication. Therefore, the aim of our study was to evaluate the views of community pharmacists on the newly implemented unified prescription in terms of its usefulness and its effect on their workflow – its complexity and their autonomy. Pharmacists' autonomy is their ability to do their jobs independently without having to refer to physicians for drug substitutions, and to make and implement decisions for the benefit of the patient.

Methods

Design and sample

This was a mixed-method study: the first part (phase 1, June–August 2016) was a quantitative survey and the second part was qualitative interviews (phase 2, April 2017). Phase 1 was a national cross-sectional survey of community pharmacists working in Lebanon. A complete list

of these pharmacists was extracted from the directory of the Order of Pharmacists of Lebanon, which included also the pharmacy's name, telephone number and address. The list was stratified by the six Lebanese governorates and a stratified random sample proportionate to size was selected. The targeted sample size was 300 pharmacists based on a 95% confidence interval with 5–6% precision. To reach the target sample size of 300, we attempted to contact 463 pharmacists, of whom 161 either declined to participate, the telephone number was wrong, or there was no answer, giving a response rate to 65.2%. Furthermore, we excluded 51 participants because they did not hold a pharmacy degree, so the final sample size was 251. Phase 2 was an in-depth face-to-face interview with 12 pharmacists from the six governorates, representing both sexes and employment status (owner versus employee). This sample proved to be sufficient as data saturation was reached (11).

Questionnaire

The questionnaire included different sections: demographic data of the pharmacists, views of the unified prescription. The demographic section included questions about age, sex, years of experience, degree (BSc in pharmacy versus PharmD) and ownership of the pharmacy (versus employee) (independent variables). The unified prescription section asked three questions: was the unified prescription useful, did it affect work autonomy and did it affect the workflow (did it make it more complicated or simpler). The last section were questions about the percentage of prescriptions: (i) in which the prescriber had indicated that no substitution of the prescribed medicine should be made by the pharmacist and (ii) that required an intervention from the pharmacist. We developed the questionnaire in English and two independent professional translators translated it into Arabic and then back-translated it for validation; there were no major discrepancies between the translators. Finally, we pilot-tested the questionnaire on community pharmacists who were not included in the final sample for clarity and appropriateness of questions, as well as the length of the interview.

The in-depth interview was based on three areas of discussion: (i) How do you define autonomy in your pharmacy practice?; (ii) How did the new unified prescription affect your work?; and (iii) How useful has the unified prescription been?

Data collection

Two pharmacy graduates collected the data for phase 1 over the phone. They were trained on how to remain objective, how to probe and how to prevent divergence from the questions. All respondents gave verbal consent to participate. In case of refusal or a wrong number, we randomly selected a replacement from the same governorate. We gave the respondents the option to be called later at a more convenient time.

In the second phase, all 12 pharmacists who participated in the face-to-face in-depth interview provided their consent. We interviewed these pharmacists at their pharmacies. The interviews were audio-recorded and tapes were reviewed for data analysis and theme identification.

Data analysis

The interviewers used Excel for data entry of the data collected during the telephone survey using a coding scheme. The final data entry sheet was imported to SPSS, version 24 (12). We used frequencies and percentages to summarize categorical variables, and means and standard deviations (SD) to summarize numerical variables. We used the Pearson chi-squared test and the ANOVA F test to assess differences in proportions and means, respectively. We set the level of significant at $P \leq 0.05$.

We reviewed and analysed the audio recordings and notes taken during the face-to-face interview to identify the themes that emerged.

Ethical considerations

This study was approved by the Institutional Review Board of the Lebanese American University (LAU.SOP.HD2.0/Jul/2016), and amended for face-to-face interviews (LAU.SOP.HD2.5/Jul/2016). Oral consent was obtained from the participants for the telephone and the face-to fact interviews.

Results

Results from the telephone survey

The sample represented all six Lebanese governorates with a distribution that closely matched the distribution of community pharmacies in the country. Males (51.8%) and females (48.2%) were almost equally represented and the biggest proportion were aged 30–39 years (35.2%). Most of the pharmacist had a bachelor of science degree (61.4%) compared with 38.6% with a degree in pharmacy, 80.1% were pharmacy owners and 74.8% had more than 6 years of experience (Table 1).

More than half of the pharmacists (56.8%) did not think that the unified prescription was useful, and 48.8% did not think it had affected their workflow (neither simplifying nor complicating it) and 63.2% did not think it had affected their autonomy. Nonetheless, of the remaining 128 pharmacists, most perceived a negative impact: 68% of the 128 reported that the unified prescription complicated their work (rather than simplified it), and 65% reported that it reduced their autonomy (rather than increased it).

Pharmacists reported an average of 59.8% (median 70%) of prescriptions were labelled with no substitution by the prescribing physician. Furthermore, they reported an average of 23.7% prescriptions needed further clarification from the prescribing physician, mostly because of unclear handwriting (92.4%), followed by wrong dose (45.0%) (Table 2).

Responses to the three unified prescription questions were statistically associated. Pharmacists who perceived the unified prescription to be useful, compared to not useful, were more likely to report that unified prescription simplified their work (36.4% versus 1.4%, P