

Assessment of Real Pharmacist Practitioner in Saudi Arabia Cross-Section Study

Abdullah Masoud Saeed Alshehri¹ Mohsen Mohammad Mohsen Alotaibi² MESFER Muidh Ghaeb Alotaibi³ Mousa Ali Mohammad Majrashi⁴ Samah Abdullah Saleh AlRuzaiza⁵ Salman Rashed Suliman Alhowaishel⁶ Zainab Obaeed Bataher⁷ Ali Hassan Ali Alfaifi⁸ Asma Hassan Mohammed Bamumin⁹ Dr.Hatim Obaid Alsulaymi¹⁰ Dr.Hamad Fahad Aljarallah¹¹, Dr.Maher Abbas Alshammari¹²

Pharmacist , Health Licenses Department, Ministry of Health Branch, Hail Saudi Arabia
Mohammed ali bakkari, Pharmacist, King Faisal hospital. Makkah Saudi Arabia

1 Technician Pharmacy Armed Forces Hospital - Al Kharj Saudi Arabia

2 Technician Pharmacy Armed Forces Hospital - Al Kharj Saudi Arabia

3 Technician Pharmacy Armed Forces Hospital - Al Kharj Saudi Arabia

4 Technician Pharmacy Armed Forces Hospital -Al Kharj Saudi Arabia

5 Pharmacist King Faisal Hospital - Makkah Saudi Arabia

6 Pharmacists Armed Forces Hospital -Al Kharj Saudi Arabia

7 Technician Pharmacy King Faisal Hospital-Makkah Saudi Arabia

8 Pharmacist King Faisal Hospital - Makkah Saudi Arabia

9 Pharmacist King Faisal Hospital - Makkah Saudi Arabia

10 Pharmacist Pharmaceutical care administration at Hail health cluster Saudi Arabia

11 Pharmacist Pharmaceutical care administration at Hail health cluster Saudi Arabia

12 Pharmacist Health Licenses Department, Ministry of Health Branch, Hail Saudi Arabia

Abstract:

This analysis aimed to gauge prevailing habits of town pharmacists from patients' and pharmacists' views in Saudi Arabia. This document gifts the pharmacist's viewpoint. An cross-sectional self-administered net questionnaire became designed to acquire solutions from community pharmacists in Saudi Arabia from February to April 2021. The survey consisted of numerous statements referring to first-rate practice in community pharmacy. Pharmacists' responses to each assertion have been scored the usage of a 5-point Likert scale. Higher ratings represented a greater extent to which they adhered to great practice in the community pharmacy environment and vice versa. Records of 164 individuals had been blanketed in the analysis. The lowest median rating become related to the remark: Pharmacist explains the primary facet effects. The highest median rating changed into regarding the assertion: Pharmacist explains dosage regimen. Pharmacists aged 30 years or above and non-Saudi pharmacists had substantially higher median scores compared with pharmacists under 30 years of age ($p = 0.016$) and Saudi pharmacists, respectively ($p = 0.001$). A gap among pleasant practice and present apply of community pharmacists become observed. Policymakers can leverage those findings to provide focused professional development opportunities for the practicing community pharmacists in an effort to enhance the overall service and care for patients.

1. Introduction

Professional pharmacy services are delineated as "an action or sequence of actions undertaken in or coordinated by a pharmacy, conveyed by a pharmacist or other health practitioner, who applies their particular health knowledge personally or via an intermediary, with a patient/client, people or other healthcare professionals, to optimize the process of care, with the aim to better health outcomes, and the value of healthcare" [1]. Community pharmacies are deemed the first in line for patients concerning ease of access to attain their medication and health services. Pharmacists in community pharmacies can provide medical services for numerous patients in a day with or without appointments. These services can be inquiring advice, reassurance, treatment, or even a blend of all these [2].

The core functions of the community pharmacist extend from recommending suitable non-prescription products to discovering and minimizing any side effects that may harm patients related to the prescription medicines, among which patient counseling is an integral part [3]. Thus, there are many factors that contribute to the satisfaction of the patient. A significant amplification in the number of patients worldwide who visit community pharmacies as compared to health care centers can be attributed to several reasons, including the low cost of services offered by the pharmacies, less waiting time, and more time spent with the pharmacist. Saudi Arabia is no different. Plentiful evidence suggests that people in Saudi Arabia often visit their community pharmacies for various rationales [4–8]. Hence, there is an increased public demand for utilizing community pharmacy services. There is also an opportunity for community pharmacies to contribute to the country's Vision 2030, which promises public–private partnerships for effective primary health care [9,10]. Because of these reasons, it is imperative to provide good-quality and standardized community pharmacy services. This study aimed to evaluate the current practice of community pharmacists from patients' and pharmacists' perspectives in Saudi Arabia in order to identify the potential areas for improvement that can ultimately be used to develop recommendations for policymakers. This paper presents the methods, results, discussion, and conclusions related to the pharmacist's perspective. The patient perspective is presented in Part I of our study.

2. Methods

2.1. Study Design

A cross-sectional self-administered online survey was employed in this study to collect the pharmacists' responses. 2024 august

2.2. Instrument

We developed the survey instrument (questionnaire) based on the relevant literature and personal observations and practices [11–15]. The questionnaire consisted of three parts. Part I comprised the demographic characteristics of the pharmacists, such as gender, age, the geographical location where they were practicing, nationality, and educational background. Part II consisted of questions related to their working experience in Saudi Arabia and knowledge of any regulations regarding pharmacist and community pharmacist practice in Saudi Arabia. Part III comprised statements related to best practice in community pharmacy. A 5-point Likert scale was used for each statement to record pharmacists' responses. Pharmacists' responses to each statement were scored to assess the extent to which they perform best practice in community pharmacies (Never = 1, Rarely = 2,

Sometimes = 3, Often = 4, Always = 5). Higher scores represented a greater extent to which they adhere to best practice in the community pharmacy setting and vice versa.

In order to detect pharmacists who randomly selected options on the Likert scale, we included the following statement in the questionnaire with Likert scale options: Ask for extra money from the patient. As opposed to the other statements, the 'always' option for this statement would illustrate worst practice by the pharmacist. It was decided to delete all the data from the analysis for these pharmacists, who may have selected 'always' for all the statements (including this one), assuming that this would indicate random responses to the statements by the pharmacist.

The questionnaire was developed and administered in the English language. The questionnaire was piloted with three pharmacists, and minor changes were made in the wording of some questions.

2.3. Validity and Reliability of the Instrument

We ensured the face validity of the questionnaire with the help of two experienced community pharmacists and two expert academic researchers to establish the relevance and reasonability of the questions without any ambiguity. They also checked the questionnaire's content to ensure that the instrument was logical and easy to understand (content validity). The reliability analysis of Part III of the instrument showed a Cronbach's alpha value of 0.91, indicating strong internal consistency.

2.4. Participants and Setting

All pharmacists working in the community pharmacy setting in Saudi Arabia were eligible to participate in the survey. The survey was disseminated via an online link using Google Forms on various social media accounts and relevant WhatsApp groups for pharmacists, and no incentives or compensation was offered for completing the survey. The data were collected August 2024.

2.5. Statistical Analysis

The data were downloaded from Google Forms as an Excel file and then exported to SPSS (Version 24) for descriptive and inferential statistical analyses. Only the researchers had access to the files. The descriptive analysis demonstrated patients' demographic characteristics and responses in frequencies, percentages, and medians with standard deviations. Furthermore, the Mann–Whitney U t-test and Kruskal–Wallis test were utilized to determine the effect of the independent variables (gender, age, geographical location, nationality, and marital status) on the dependent variables (median score of all the statements), and a p-value of less than 0.05 was considered statistically significant.

Currently, there are an estimated 24,395 community pharmacists dispensing phar-

maceutical products in community pharmacies across the country [16]. The sample size determined by an online sample size calculator (SurveyMonkey, San Mateo, CA, USA) with a 95% confidence interval and a 5% margin error was 379 community pharmacists.

3. Results

3.1. Demographics

A total of 169 pharmacists responded to the survey. The data of five participants were deleted because they were deemed random responses (explanation in the methods section). The data of 164 participants were included in the analysis. More than half of them were males ($n = 116$; 71%). The majority of the participants were Saudi nationals ($n = 122$; 75%) and less than 30 years old ($n = 123$; 75%). The northern region of Saudi Arabia was the geographical location where the highest percentage of participants responded from ($n = 64$; 39%). Table 1 shows more details regarding the demographic characteristics of the participants.

Table 1. Demographic characteristics of the participants ($n = 164$) with the comparison of their median scores.

Demographic Characteristics	Number of Participants	Median Score (IQR)	<i>p</i> -Value
Gender			
Male	116	3.86 (0.67)	0.958
Female	48	3.81 (0.75)	
Age			
Less than 30 years	123	3.77 (0.68)	0.017
30 years or above	41	4.06 (0.69)	
Demographic Characteristics	Number of Participants	Median Score (IQR)	<i>p</i>-Value
Geographical location			
Central region	22	3.44 (0.78)	0.008
Eastern region	14	3.68 (0.58)	
Northern region	64	4.03 (0.64)	
Southern region	28	3.79 (0.73)	
Western region	36	3.87 (0.65)	
Nationality			
Saudi	122	3.75 (0.70)	0.003
Non-Saudi	42	4.12 (0.58)	
Educational background			
BPharm	85	3.92 (0.63)	0.431
PharmD	70	3.76 (0.70)	
Postgraduate degree	9	3.75 (1.14)	
Working experience as a pharmacist in KSA			
1 year	83	3.80 (0.59)	0.265
2 years	25	3.81 (0.92)	
3 or more years	56	3.93 (0.73)	

Aware of any regulation about pharmacistrole in Saudi Arabia			
Yes	130	3.93 (0.68)	<0.001
No	34	3.50 (0.64)	
Aware of any regulation about communitypharmacist role in Saudi Arabia			
Yes	110	3.94 (0.67)	0.018
No	54	3.66 (0.70)	

3.2. Responses to the Statements

Participants' responses to the statements are illustrated in Table 2. The median score of the individual statements ranged from 3.26 (2.00) to 4.34 (1.01) (5 being the maximum possible score for each statement). The minimum median score was related to the statement: Pharmacist explains the main side effects. The maximum median score was related to the statement: Pharmacist explains dosage regimen (dose and frequency). The overall median score of all the statements was 77 (14), ranging from 30 to 100 (maximum possible score of 100). The Mann–Whitney U t-test revealed no significant difference in the median scores between male and female pharmacists: 3.86 (0.67) versus 3.81 (0.75); $p = 0.958$. However, pharmacists aged 30 years or above and non-Saudi pharmacists had significantly higher median scores compared with pharmacists less than 30 years of age ($p = 0.016$) and Saudi pharmacists ($p = 0.001$), respectively. Moreover, those who were aware of any regulation about pharmacists' role in Saudi Arabia and aware of any regulation about community pharmacists' role in Saudi Arabia also had significantly higher median scores compared

with those who were not aware.

The Kruskal–Wallis test revealed a statistically significant difference in the median scores of the participants from different regions ($p = 0.008$). Participants from the northern region had the highest median score, 4.03 (0.64), whereas participants from the central region had the lowest median score, 3.44 (0.78). No significant difference was observed in

the median scores of the pharmacists with different educational backgrounds and different working experiences in Saudi Arabia.

Table 2. Participants' frequencies (with percentages) and the median scores (with standard deviation) for the statements.

Statement (%)	Never	Rarely (%)	Sometimes (%)	Often (%)	Always (%)	Median (IQR)
1. Ask about current medications (6.7)	11	10 (6.1)	38 (23.2)	40 (24.4)	65 (39.6)	3.84 (1.21)
2. Ask about comorbid diseases	8	12 (7.3)	36 (22)	52 (31.7)	56 (34.1)	3.83 (1.13)

(4.9)						
3. Explain dosage regimen (dose (4.9)	8	5 (3)	17 (10.4)	28 (17.1)	106 (64.6)	4.34 (1.10)
4. Explain dosage regimen	10 (6.1)	3 (1.8)	16 (9.8)	30 (18.3)	105 (64)	4.32 (1.12)
5. Ensure understanding of dosage (4.9)	8	6 (3.7)	20 (12.2)	33 (20.1)	97 (59.1)	4.25 (1.12)
6. Explain main side effects	12 (7.3)	31 (18.9)	57 (34.8)	30 (18.3)	34 (20.7)	3.26 (1.20)
7. Ask for extra money from 132		7 (4.3)	10 (6.1)	5 (3.0)	10 (6.1)	1.5 (1.1)
(80.5)						
8. Discuss complementary medications the patient may (4.9) be taking	8	18 (11)	58 (35.4)	33 (20.1)	47 (28.7)	3.57 (1.16)
9. Discuss general health issues of (3)	5	16 (9.8)	57 (34.8)	37 (22.6)	49 (29.9)	3.66 (1.10)
10. Discuss the patient's concerns (3.7)	6	14 (8.5)	55 (33.5)	42 (25.6)	47 (28.7)	3.67 (1.09)
11. Use simple (non-medical) terms when talking to the patient 0		8 (4.9)	38 (23.2)	30 (18.3)	88 (53.7)	4.21 (0.96)
(0)or customer						
12. Ensure patient compliance (4.9)	8	10 (6.1)	49 (29.9)	31 (18.9)	66 (40.2)	3.84 (1.17)
13. Provide the patient written information about medications 6		14 (8.5)	31 (18.9)	38 (23.2)	75 (45.7)	3.99 (1.15)
(3.7)whenever needed						
14. Handle consultations on	8 (4.9)	13 (7.9)	44 (26.8)	37 (22.6)	62 (37.8)	3.8 (1.17)
15. Provide clear non-verbal instructions on patient counseling (6.7)	11	13 (7.9)	37 (22.6)	40 (24.4)	63 (38.4)	3.8 (1.22)
cannot hear						
16. Follow up with the patients (7.3)	12	28 (17.1)	50 (30.5)	32 (19.5)	42 (25.6)	3.39 (1.24)
17. Solve medication-related	4 (2.4)	21 (12.8)	49 (29.9)	39 (23.8)	51 (31.1)	3.68 (1.12)
18. Promote health awareness	4 (2.4)	11 (6.7)	41 (25)	37 (22.6)	71 (43.3)	3.98 (1.09)
19. Provide patient care relevant to	11	8 (4.9)	43 (26.2)	36 (22)	66 (40.2)	3.84 (1.20)

(6.7)

20. Follow the mechanisms for checking dispensing procedures in 10	18 (11)	30 (18.3)	40 (24.4)	66 (40.2)	3.82 (1.25)
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(6.1)the pharmacy

21. Ensure proper labeling of the (3)	5	16 (9.8)	36 (22)	40 (24.4)	67 (40.9)	3.9 (1.14)
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4. Discussion

Our study was an exploratory study in which we evaluated the current practice of community pharmacists from their own perspective in Saudi Arabia. In previous studies, community pharmacists have successfully been able to self-evaluate their practices and competencies [17,18]. Standards for the quality of pharmacy services have been set by the World Health Organization [11]. Studies from other countries have shown varying results related to the evaluation of community pharmacy services [13–15]. In our study, a scale based on best community pharmacist practices was developed utilizing the literature, and community pharmacists were asked to rate their practice on this scale, following which we quantified their responses [11–15].

We found that the median score of male and female pharmacists was above 3.8, and there was no significant difference found between them, meaning they evaluated themselves to be performing best practice equally well. However, the number of male pharmacists in our study sample was more than double that of female pharmacists. This reflects the effect of culture on the workforce in Saudi Arabia, in which females are still reluctant to accept retail jobs. However, because of the recent reforms taking place in the country, a shift in the workforce is anticipated [19–21]. Alhaddad and colleagues evaluated the satisfaction of female patients with the services received from male community pharmacists in Saudi Arabia and reported that less than half of patients were satisfied with the services they received from male pharmacists; more than half were embarrassed to discuss sensitive female issues with the male pharmacists and preferred the presence of female pharmacists in community pharmacies [22]. With the anticipated shift in the workforce in the country, we expect to have more female pharmacists available in community pharmacies to serve female patients.

We also found that we had a higher number of young and newly graduated Saudi pharmacists in our study sample. This again reflects the workforce reforms taking place in Saudi Arabia, which is creating a significantly increased number of job opportunities for young people in every sector compared with past numbers. With more young pharmacists joining the workforce, we can expect an improvement in the quality of pharmaceutical care provided in community pharmacies; one study reported that younger pharmacists are generally more supportive of pharmaceutical care and exhibit best practice of pharmaceutical care [23]. Another promising finding was that majority of the pharmacists were aware of the pharmacy regulations in the country. However, it was alarming to observe that approximately 20% of the pharmacists were not aware of any pharmacy regulations. This raises serious concerns regarding the qualification and licensing of these pharmacists to practice in community pharmacies.

Our study also revealed a significant difference in the median scores of community pharmacists from different regions of the country. The community pharmacists in the northern region had the highest score, whereas those in the central region had the lowest score, and this difference was

significant. This coincides with the patient evaluation of community pharmacist practices reported in Part I of our study, in which patients in the northern region also scored significantly higher compared with patients in the central region. It must be noted that the population demographics of Saudi Arabia vary from region to region [24]. Some areas are more populated with non-Saudis, and others are more populated with the people of middle age and the elderly. Moreover, the central region is the most populous, and community pharmacists may not have sufficient time to provide good-quality pharmacy services to patients in busy community pharmacies [25]. Furthermore, in community pharmacies, patients prefer a private area for discussing personal health issues [26], and this may not be possible in crowded community pharmacies. By contrast, the northern region is less populous than the central region, and pharmacists may have ample time to build good relationships and rapport with their patients in community pharmacies. This may explain the reasons for the differences in patient expectations and community pharmacist practices in these regions.

The statement on which the pharmacists scored the lowest compared with the other statements was: “Explain main side effects (to the patients)”. This coincides with findings of the patient evaluation of community pharmacist practices reported in Part I of our study, in which this was the statement that was scored lowest by the patients. It also resonates with other studies in which community pharmacists in Saudi Arabia have been reported to be reluctant to explain medication side effects to their patients [4,25]. This may be because business still plays a crucial role in the community pharmacy practice, and the pharmacists may not be willing to explain medication side effects to patients lest this turns them away from community pharmacies.

Other statements on which both community pharmacists and patients (according to findings on the patient perspective reported in Part I of our study) scored low were: “Discuss complementary medications the patient may be taking”, “Discuss general health issues of the patient”, and “Follow up with the patients about their health”. Al-Arifi also reported that community pharmacists in Saudi Arabia did not provide adequate counseling to patients regarding complementary medications [27]. Likewise, Khmour and Hallaki reported that pharmacists generally do not discuss general health issues with patients in community pharmacies [28].

The four statements that achieved a median score of more than 4 (out of total 5) were: “Explain dosage regimen (dose and frequency) to the patient”, “Explain dosage regimen (administration) to the patient”, “Ensure understanding of dosage regimen by the patient”, and “Use simple (non-medical) terms when talking to the patient or customer”. Interestingly, the first two statements and the last statement coincided with the statements that were also scored higher than 4 by the patients when evaluating the community pharmacy practice (reported in Part I of our study). A study from the United Arab Emirates reported that community pharmacists explain to patients how to use their medication on 98% of occasions [29]. By contrast, in a study from Iraq, community pharmacists were not generally found to check the prescriptions for dose and frequency accuracy [30].

Limitations

The findings of our study must be interpreted considering the limitations. It was only an exploratory study, and we were not able to achieve the required sample size because of time constraints. Moreover, we utilized a self-completed online questionnaire that could be subject to the misunderstanding of the questions and memory bias.

5. Conclusions

While the sample size was limited, our results still offer valuable insight into current practices among community pharmacists in Saudi Arabia based on their own accounts. A gap was highlighted between present actions and optimal care as judged by the pharmacists themselves. They ought to consider explaining medication side effects in more depth and detail. In addition, counseling on other prescriptions patients may be taking or interested in alongside complementary over-the-counter options. Lastly, discussing general health issues as related to interactions with patients visiting local pharmacies. The pharmacists must also follow up with patients about their drugs and wellness whenever opportunities allow. Policymakers can leverage these findings to deliver targeted training for practicing community pharmacists aiming to advance the quality of services and care provided to individuals.

References

1. Donabedian, A. Evaluating the Quality of Medical Care. *Milbank Q.* 2005, 83, 691–729. [CrossRef] [PubMed]
2. Hasan, S.; Sulieman, H.; Chapman, C.; Stewart, K.; Kong, D. Community pharmacy services in the United Arab Emirates. *Int. J. Pharm. Pract.* 2012, 20, 218–225. [CrossRef] [PubMed]
3. Wirth, F.; Tabone, F.; Azzopardi, L.; Gauci, M.; Zarb-Adami, M.; Serracino-Inglott, A. Consumer perception of the community pharmacist and community pharmacy services in Malta. *J. Pharm Health Serv. Res.* 2010, 1, 189–194. [CrossRef]
4. Rasheed, M.; Alqasoumi, A.; Hasan, S.; Babar, Z. The community pharmacy practice change towards patient-centered care in Saudi Arabia: A qualitative perspective. *J. Pharm. Policy Pract.* 2020, 13, 59. [CrossRef] [PubMed]
5. Al-jedai, A.; Qaisi, S.; Al-meman, A. Pharmacy Practice and the Health Care System in Saudi Arabia. *Can. J. Hosp. Pharm.* 2016, 69, 231–237. [CrossRef] [PubMed]
6. Al-Arifi, M. Patients' perception, views and satisfaction with pharmacists' role as health care provider in community pharmacy setting at Riyadh, Saudi Arabia. *Saudi Pharm. J.* 2012, 20, 323–330. [CrossRef] [PubMed]
7. Al-Tannir, M.; Alharbi, A.; Alfawaz, A.; Zahran, R.; AlTannir, M. Saudi adults satisfaction with community pharmacy services. *Springerplus* 2016, 5, 774. [CrossRef]
8. Bawazir, S. Consumer attitudes towards community pharmacy services in Saudi Arabia. *Int. J. Pharm. Pract.* 2004, 12, 83–89. [CrossRef]
9. The Government of Saudi Arabia. The Kingdom of Saudi Arabia Vision 2030. Vision Realization Programs. 2019. Available online: <https://www.vision2030.gov.sa/v2030/vrps/> (accessed on 5 September 2021).

10. Ministry of Health, KSA. Key Health Indicators. 2020. Available online: [https://www.moh.gov.sa/en/Ministry/Statistics/ Indicator/Pages/default.aspx](https://www.moh.gov.sa/en/Ministry/Statistics/Indicator/Pages/default.aspx) (accessed on 5 September 2021).
11. World Health Organization (WHO). Joint FIP/WHO Guidelines on Good Pharmacy Practice: Standards for Quality of Pharmacy Services. 2011. Available online: https://www.who.int/medicines/areas/quality_safety/quality_assurance/FIPWHOGuidelinesGoodPharmacyPracticeTRS961Annex8.pdf (accessed on 11 February 2022).
12. Eades, C.; Ferguson, J.; O'Carroll, R. Public health in community pharmacy: A systematic review of pharmacist and consumer views. *BMC Public Health* 2011, 11, 582. [CrossRef]
13. Hindi, A.; Schafheutle, E.; Jacobs, S. Patient and public perspectives of community pharmacies in the United Kingdom: A systematic review. *Health Expect.* 2017, 21, 409–428. [CrossRef]
14. Melton, B.; Lai, Z. Review of community pharmacy services: What is being performed, and where are the opportunities for improvement? *Integr. Pharm. Res. Pract.* 2017, 6, 79–89. [CrossRef] [PubMed]
15. Patel, P.; Vaidya, V.; Osundina, F.; Comoe, D. Determining patient preferences of community pharmacy attributes: A systematic review. *J. Am. Pharm. Assoc.* 2020, 60, 397–404. [CrossRef] [PubMed]
16. Alshahrani, A. Readiness of community pharmacists to play a supportive and advocacy role in the fight against coronavirus disease. *Risk Manag. Healthc. Policy* 2020, 13, 3121–3133. [CrossRef] [PubMed]
17. Mills, E.; Laaksonen, R.; Bates, I.; Davies, G.; Duggan, C. Self-assessment of competence in a community pharmacy setting. *Pharm. Educ.* 2005, 5, 189–199. [CrossRef]
18. Držaić, M.; Kummer, I.; Mucalo, I.; Bruno, A.; Ortner Hadžibabic, M. Identifying self-assessed competencies and areas for improvement within community pharmacist-preceptors support during pre-registration training. *BMC Med. Educ.* 2018, 18, 303. [CrossRef]
19. The Government of Saudi Arabia. The Kingdom of Saudi Arabia Vision 2030. Progress and Achievements. 2019. Available online: <https://www.vision2030.gov.sa/v2030/achievements/> (accessed on 5 September 2021).
20. Almaghaslah, D.; Alsayari, A.; Asiri, R.; Albugami, N. Pharmacy workforce in Saudi Arabia: Challenges and opportunities: A cross-sectional study. *Int. J. Health Plan. Manag.* 2018, 34, e583–e593. [CrossRef]
21. Shadmand, S.L.; Biesenthal, B.K.; Beaumont, J.S.; Gidalevitz, O. Saudi Arabia Introduces Significant Labor Reforms. Society for Human Resource Management (SHRM). 2020. Available online: <https://www.shrm.org/resourcesandtools/hr-topics/global-hr/pages/saudi-arabia-labor-reform-initiative.aspx> (accessed on 8 October 2021).
22. Alhaddad, M.; Mudhish, E.; Bukhari, R.; Aladwani, A.; Asiri, S. Assessment of Female Satisfaction with the Role of Male Community Pharmacists in the Kingdom of Saudi Arabia. *J. Clin. Diagn. Res.* 2018, 12, 1–5. [CrossRef]

23. Dunlop, J.; Shaw, J. Community pharmacists' perspectives on pharmaceutical care implementation in New Zealand. *Pharm.*

World Sci. 2002, 24, 224–230. [CrossRef]

24. General Authority for Statistics, KSA. Population in Saudi Arabia by Gender, Age, Nationality (Saudi/Non-Saudi)–Mid 2016 A.D. 2016. Available online: <https://www.stats.gov.sa/en/5305> (accessed on 8 October 2021).

25. Al Qarni, H.; Alrahbini, T.; AlQarni, A.; Alqarni, A. Community pharmacist counselling practices in the Bisha health directorate, Saudi Arabia–Simulated patient visits. *BMC Health Serv. Res.* 2020, 20, 745. [CrossRef]

26. Hattingh, H.; Emmerton, L.; Ng Cheong Tin, P.; Green, C. Utilization of community pharmacy space to enhance privacy: A qualitative study. *Health Expect.* 2015, 19, 1098–1110. [CrossRef]

27. Al-Arifi, M. Availability and needs of herbal medicinal information resources at community pharmacy, Riyadh region, Saudi Arabia. *Saudi Pharm. J.* 2013, 21, 351–360. [CrossRef] [PubMed]

28. Khmour, M.; Hallak, H. Societal perspectives on community pharmacy services in West Bank-Palestine. *Pharm. Pract.* 2012, 10,

17–24. [CrossRef] [PubMed]

29. Hasan, S.; Sulieman, H.; Stewart, K.; Chapman, C.; Kong, D. Patient expectations and willingness to use primary care pharmacy services in the United Arab Emirates. *Int. J. Pharm. Pract.* 2015, 23, 340–348. [CrossRef] [PubMed]

30. Ibrahim, I.; Al Tukmagi, H.; Wayyes, A. Attitudes of Iraqi society towards the role of community pharmacists. *Innov. Pharm.* 2013,

4, 114. [CrossRef]