Public’s Experiences and Expectations of Pharmacists during Coronavirus (COVID-19) in Saudi Arabia

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ABSTRACT

Goal: To elucidate the public’ experiences and expectations of pharmacists during COVID-19 in Saudi Arabia. Methods: It is three cross-sectional of convenient sampling and calculated number of the subject with power eighty. It was a self-reported electronic survey for the population in the King of Saudi Arabia. It encompassed all citizens who lived in Saudi with the age of more than 18 years and above. The survey entailed of the demographic data patients actual experiences of pharmacists during COVID-19 and patients actual expectations of pharmacists during any other pandemic situation. Survey monkey, Microsoft Excel, and Statistical Package of Social Science (SPSS) were used for the analysis. Results: The total number of responding pharmacists was 461. Of those, 440 (95.44%) were Saudi, and 344 (74.62%) were female, with statistical significance between nationality or gender answers (p<0.001). Almost two-thirds of the responders had bachelor’s degrees 319 (69.20%) with statistically noteworthy between among all academic qualifications (p<0.001). Most of the responders were non-healthcare professionals 338 (74.45%), and physicians and nurses representative high percentages 37 (35.92%) and 31 (30.10%), respectively, with statistically significant among the remaining answers (p<0.001). The total average scores of patients’ actual experiences of pharmacists during COVID-19 were 3.41. The high scores element was pharmacists routinely counsel me regarding the safe and appropriate use of my medications (3.79), and the pharmacist implemented the MOH covid-19 instructions and guidelines (3.77). The total average scores of patients actual expectations of pharmacists during any other pandemic situation were 3.71 with high scores element was the pharmacist expand their services and will most of my medications request by online and mobile application (3.88) and the pharmacist applied software applications for education for drugs and any pandemic (3.86). Conclusion: The public’ experiences and expectations of pharmacist during COVID-19 in Saudi Arabia is very optimistic. Therefore, targeting education, training, declaring the pharmacist’s role during pandemic situations, emergency public health emphasizing therapeutic guidelines and preventing drug-related problems is highly proposed for implementations in Saudi Arabia.

Keywords: Public, Experiences, Expectations, Pharmacists, COVID-19, Saudi Arabia.

INTRODUCTION

In the last two years, the biggest pandemic and emergency public health started worldwide. The viral infectious disease instigated in China and then shifted to all countries. World Health Organization referred numerous warnings about the diseases called Coronavirus or COVID-19. Each government recognized preventive measures before the conditions entrance, followed up the cases, and planned the management for their residents and citizens during the pandemic; the Kingdom of Saudi Arabia did an excellent performance. It stopped all travellers from infected countries from entering. It avoids all inside passengers to travellers outside the county. Besides, also includes keeping distance policy, stopping any activity with crowd people, confirms mask warning in public areas.

The government has formulated a national committee to meet this pandemic with higher government administration’s total financial and logistic support. The Ministry of Health offers pervasive healthcare activities. They follow-up all new-cases with or without symptoms overseas; the infected are acknowledged to hospitals or critical care services. It planned prevention and treatment protocol of COVID-19 implemented at all the health care services. The MOH used an electronic system through numerous applications during pandemic situations. Besides, growing the number of beds, opening new hospitals, and organizing the call centre of 937 to receive all healthcare inquiries linked to the pandemic COVID-19. Moreover, the MOH controlled the clinical trials about COVID-19 management, vaccines organization and delivered free vaccines for all residents and citizens in Saudi Arabia.

Various publications discussed pharmacy-related activities in emergency public health time. Healthcare professionals achieve all those activities, counting the pharmacy staff, along with the clinical pharmacist or distributive pharmacist, or pharmacy technician. The pharmacist plays a vital role during a pandemic COVID-19. The pharmacist delivers home delivery of medications from hospital, community pharmacies and publications about the COVID-19 diseases and
had been done with the study. The data analysis is finished through the survey monkey system, the Statistical Package of Social Sciences (SPSS), and Jeffery's Amazing Statistics Program (JASP). Besides, it is completed by the Microsoft excel sheet version 16 with description and frequency analysis, good of fitness analysis, correlation analysis, inferential analysis of factors affects pharmacists perceptions of forensic pharmacy. The STROBE (Strengthening the reporting of observational studies in epidemiology statement: guidelines for reporting observational studies) steered the reporting of the current study.[27,28]

RESULTS

The total number of responding pharmacists was 461, with most of them coming from the south area (45.77%), and west area (33.41%) with statistically noteworthy among the regions (p<0.001). Of those, 440 (95.44%) were Saudis, and 344 (74.62%) were female, with statistical consequence between nationality or gender answers (p<0.001). Most of the respondents were in age (18-24) years 174 (39.19%) with statistically significant between all ages level (p<0.001). Almost two-thirds of the responders had bachelor's degree 319 (69.20%) with statistically significant between all academic qualifications (p<0.001). Most responders were students 186 (40.35%) and employees 144 (31.24%), and monthly income less than 3,000 SR was 197 (46.14%) statistically important between among the remaining answers (p<0.001). Most of the responders were non-healthcare professionals 338 (74.45%), and physicians and nurses representative high percentages 37 (35.92%) and 31 (30.10%), respectively, with statistically significant among the remaining answers (p<0.001). The majority of responders contacted with community pharmacies 282 (62.81%) or hospital pharmacies 115 (25.61%) more frequently, while rarely 171 (37.92%) or sometimes 119 (26.39%) communicate with pharmacist statistically significant between among the answers (p<0.001). There is a medium positive relationship between Age (years) and monthly income Kendall’s tau_b (0.563) or Spearman’s rho (0.677) with statistically significant between answers (p<0.001) as travelled in Table 3.

The total average scores of patients actual expectations of pharmacists during any other pandemic situation were 3.71 with high scores element was the pharmacist expand their services and will most of medications appeal by online and mobile application (3.88). In addition, the pharmacist applied software applications for education for drugs and any pandemic (3.86), and the pharmacist executed the drug therapy guidelines from MOH (3.81). Besides, the pharmacist can make the essential examination (3.81), and the pharmacist expand the home delivery for medications, medical devices, and instruments free of charge (3.81). On the contrary, the lowest score aspect of nuclear pharmacy was the pharmacist can make the advances examination (3.48), and the pharmacist provide vaccines services for adults and geriatrics (3.4). Besides, the pharmacist in the future had the clinical and administrative privilege as part of pharmacy law (3.64) with statistically noteworthy between answers (p<0.001) as reconnoitred in Table 4. The reliability test of McDonald’s ω, 0.942, Cronbach α 0.942, Guttmann’s λ2, 0.944, and Guttmann’s λ6, 0.959.

Factors persuading the patients' actual experiences or actual expectations of pharmacist. It might affect the patients actual experiences, for instance; location, employment, age (years), nationality, gender, educational level, monthly income, and whether the responders are from healthcare professionals. Using independent samples Kruskal-Wallis test and the Bonferroni correction for multiple tests have adjusted significant values, the results showed as follows. Five locations exaggerated the actual experiences with the highest average score (3.5770) at the south region with statistically significant differences (p=0.000). The academic qualification and monthly income pretentious the patients actual experiences with statistically significant differences (p=0.041) and (p=0.000), respectively, with non-statistically significant differences between the academic qualification levels in post hoc analysis (p=0.05). Other factors (employment, nationality, gender, and does the responders were from healthcare professionals) did not
Table 1: Demographic, social information.

| Nationality    | Response Count | Response Percent | P value |
|----------------|----------------|------------------|---------|
| Central area   | 54             | 11.71%           | 0.000   |
| North area     | 13             | 2.82%            |         |
| South area     | 211            | 45.77%           |         |
| East area      | 29             | 6.29%            |         |
| West area      | 154            | 33.41%           |         |
| Answered question | 461     |                  |         |
| Skipped question | 0            |                  |         |

| Gender         | Response Count | Response Percent | P value |
|----------------|----------------|------------------|---------|
| Saudi          | 440            | 95.44%           | 0.000   |
| Non-Saudi      | 21             | 4.56%            |         |
| Answered question | 461     |                  |         |
| Skipped question | 0            |                  |         |

| Age            | Response Count | Response Percent | P value |
|----------------|----------------|------------------|---------|
| < 18           | 19             | 4.28%            | 0.000   |
| 18-24          | 174            | 39.19%           |         |
| 25-30          | 68             | 15.32%           |         |
| 31-35          | 29             | 6.53%            |         |
| 36-40          | 34             | 7.66%            |         |
| 41-45          | 32             | 7.21%            |         |
| 46-50          | 27             | 6.08%            |         |
| > 50           | 61             | 13.74%           |         |
| Answered question | 444     |                  |         |
| Skipped question | 17            |                  |         |

The COVID-19 time was a very grave period locally and internationally. Everything was transformed. Regular working altered to online, typical hospital visiting the online clinic, and traditional distribution from patients visit and get the drugs to medication home delivery. Various things conflicting the public and change their daily lives and standard behaviour switch to something new in healthcare and pharmacy services. Besides, the hospital or community pharmacist’s behaviour reformed from passive to active behaviour with mail or home distribution. As a result, the patients faced new looks from pharmacists during the peak pandemic of the COVID-19 period. However, the experiences and expectations of patients from pharmacists are highly requested to know to improve the communication skills between patients and pharmacists, declare the role of pharmacists during pandemic situations and the future expectations of pharmacists toward patients in the coming pandemic cases from the public point of view. The contemporary study was completed by distributing an electronic authenticated and high-reliability survey to a convenient sample with an adequate sample. The author dispersed the study mainly from the south and west regions where authors had lived. The majority of responders were female because of same author’s gender. The majority of responders were had a bachelor’s degree look like the earlier study with low income that’s expected because they were the student and young age.
recently graduated. The study targets were non-
healthcare professionals. However, one-quarter
had responded from healthcare professionals.
Therefore, it was a good opportunity to
know their experiences and expectations of
pharmacists. The existing results exposed that
most patients communicated with community
pharmacies. It has been expected to be more
reachable to them and safer than the hospital
in COVID-19 visiting cases. However, the
contact situation was rarely or sometimes. It
has echoed that the patients do not need any
medications from community pharmacies, get
their medicines from the hospital, or receive
their medications through home delivery.
However, patients did not contact a pharmacist
during or after delivery.

The patients had positive experiences with
pharmacists during COVID-19 with high
experiences with patient’s medications
education or relating the MOH COVID-19
regulation and reflect the pharmacist as sources
of drug information resemble earlier study.[22]

The patient analysis through community
pharmacy is well known of the prior literature
and might upsurge during COVID 19 due to
the demand of receive counselling with new
pandemic situations.[4,10-14,32-36] The pharmacist
displayed positive cooperation with MOH
regularly, which was exceptional to prevent
any further distribution of pandemic disease.
The pharmacist experiences as the sources of
drug information for patients, which was part
of their active role in society during pandemic
situations. However, the patients had negative
experiences with numerous activities during

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### Table 2: Demographic, social information.

| Responder Qualifications | Response Count | Response Percent | P value |
|--------------------------|----------------|------------------|---------|
| Doctorate degree         | 18             | 3.90%            | 0.000   |
| Master degree            | 30             | 6.51%            |         |
| Bachelor Degree          | 319            | 69.20%           |         |
| Diploma                  | 25             | 5.42%            |         |
| High school              | 56             | 12.15%           |         |
| Intermediate School      | 12             | 2.60%            |         |
| Primary School           | 0              | 0.00%            |         |
| Not educated             | 1              | 0.22%            |         |
| Answered question        | 461            |                  |         |
| Skipped question         | 0              |                  |         |

### Occupational status

| Occupation       | Response Count | Response Percent | P value |
|------------------|----------------|------------------|---------|
| Employee         | 144            | 31.24%           | 0.000   |
| Unemployed       | 70             | 15.18%           |         |
| Student          | 186            | 40.35%           |         |
| Retired          | 57             | 12.36%           |         |
| Not written      | 4              | 0.87%            |         |
| Answered question| 461            |                  |         |
| Skipped question | 0              |                  |         |

## Monthly income

| Monthly Income | Response Count | Response Percent | P value |
|----------------|----------------|------------------|---------|
| < 3,000 SR     | 197            | 46.14%           | 0.000   |
| 3,001-6,000    | 33             | 7.73%            |         |
| 6,001-9,000    | 33             | 7.73%            |         |
| 9,001-12,000   | 46             | 10.77%           |         |
| 12,001-15,000  | 49             | 11.48%           |         |
| 15,001-18,000  | 25             | 5.85%            |         |
| 18,001-21,000  | 18             | 4.22%            |         |
| >21,000 SR     | 26             | 6.09%            |         |
| Answered question| 427           |                  |         |
| Skipped question | 34           |                  |         |

### Are you a health care practitioner (Medical Doctor-Dentist-Pharmacist-Nurse-Others)?

| Response | Response Count | Response Percent | P value |
|----------|----------------|------------------|---------|
| Yes      | 116            | 25.55%           | 0.000   |
| No       | 338            | 74.45%           |         |

### If you are a health care practitioner, you are a

| Profession   | Response Count | Response Percent |
|--------------|----------------|-------------------|
| Physician    | 37             | 35.92%            |
| Nurse        | 31             | 30.10%            |
| Nutritionist | 17             | 16.50%            |
| Pharmacist   | 7              | 6.80%             |
| Laboratory   | 4              | 3.88%             |
| Radiology    | 2              | 1.94%             |
| Physiotherapy| 3              | 2.91%             |
| Other (please specify) | 2 | 1.94% |

### Which type of pharmacies are you more frequent communication

| Type of Pharmacy | Response Count | Response Percent |
|------------------|----------------|-------------------|
| Hospital pharmacy| 115            | 25.61%            |
| Community pharmacies | 282 | 62.81% |
| Primary healthcare pharmacy | 60 | 13.36% |
| Private hospital pharmacies | 38 | 8.46% |
| Non              | 12             | 2.67%             |

### How do you frequently communicate with the pharmacist?

| Frequency        | Response Count | Response Percent |
|------------------|----------------|-------------------|
| Always           | 31             | 6.87%             |
| Most of the time | 54             | 11.97%            |
| Sometimes        | 119            | 26.39%            |
| Rarely           | 171            | 37.92%            |
| Never            | 76             | 16.85%            |

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Continued...
| Experience                                                                 | Strongly Disagree | Disagree | Neutral | Agree | Strongly agree | Total | Weighted Average |
|----------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|-------|------------------|
| In my experience, pharmacists are a reliable source of general drug information                                                                 | 3.84%             | 17       | 4.06%   | 18    | 27.99%         | 124   | 42.21%           | 187   | 21.90%           | 97    | 443   | 3.74  | 0.000 |
| Pharmacists routinely counsel my regarding the safe and appropriate use of my medications                                                                 | 2.94%             | 13       | 6.11%   | 27    | 21.49%         | 95    | 47.51%           | 210   | 21.95%           | 97    | 442   | 3.79  | 0.000 |
| Pharmacists routinely inform me if they discover clinical problems with my prescriptions and contact with the physician for corrections | 7.24%             | 32       | 17.65%  | 78    | 27.83%         | 123   | 34.39%           | 152   | 12.90%           | 57    | 442   | 3.28  | 0.000 |
| Pharmacists routinely inform me about less expensive alternatives to the drugs prescribed to me                                                                 | 9.75%             | 43       | 17.46%  | 77    | 33.33%         | 147   | 28.57%           | 126   | 10.88%           | 48    | 441   | 3.13  | 0.000 |
| Pharmacists frequently ask me to clarify the drug therapy objectives for prescribed or my request medications                                                                 | 5.66%             | 25       | 12.90%  | 57    | 30.09%         | 133   | 36.65%           | 162   | 14.71%           | 65    | 442   | 3.42  | 0.000 |
| Pharmacists frequently inform me and my doctor about medications problem properly occurs to me                                                                 | 5.92%             | 26       | 12.30%  | 54    | 30.07%         | 132   | 38.27%           | 168   | 13.44%           | 59    | 439   | 3.41  | 0.000 |
| In my experiences, the pharmacists available to me 24 hr for consultation when I see patients                                                                 | 2.97%             | 13       | 10.76%  | 47    | 28.38%         | 124   | 40.96%           | 179   | 16.93%           | 74    | 437   | 3.58  | 0.000 |
| In my experience, pharmacists appear willing to take personal responsibility for resolving any drug-related problem they discover with cooperative with my doctor | 7.74%             | 34       | 20.05%  | 88    | 33.71%         | 148   | 27.11%           | 119   | 11.39%           | 50    | 439   | 3.14  | 0.000 |
| The pharmacist monitors me as patient response to drug therapy and lets me know if a patient encounters any drug-related problem                                                                 | 16.25%            | 71       | 21.74%  | 95    | 30.21%         | 132   | 23.80%           | 104   | 8.01%            | 35    | 437   | 2.86  | 0.000 |
| In my experience, the pharmacist implemented the MOH covid-19 instructions and guidelines                                                                 | 3.19%             | 14       | 3.64%   | 16    | 26.20%         | 115   | 46.47%           | 204   | 20.50%           | 90    | 439   | 3.77  | 0.000 |
| The pharmacist dispense medications through electronic prescribing system                                                                 | 4.12%             | 18       | 8.92%   | 39    | 33.87%         | 148   | 39.36%           | 172   | 13.73%           | 60    | 437   | 3.5   | 0.000 |
| In my experiences, the good quantities of medications available in the pharmacy                                                                 | 2.73%             | 12       | 10.25%  | 45    | 28.70%         | 126   | 44.19%           | 194   | 14.12%           | 62    | 439   | 3.57  | 0.000 |
| The pharmacist participate in education of covid-19 through educational material and software applications                                                                 | 6.38%             | 28       | 17.08%  | 75    | 32.12%         | 141   | 33.71%           | 148   | 10.71%           | 47    | 439   | 3.25  | 0.000 |
| The pharmacist received my medications request by online and mobile application                                                                 | 4.78%             | 21       | 7.52%   | 33    | 35.31%         | 155   | 38.95%           | 171   | 13.44%           | 59    | 439   | 3.49  | 0.000 |
| In my experiences, the pharmacist used home delivery for my medications, medical devices, and instruments                                                                 | 5.95%             | 26       | 16.25%  | 71    | 35.01%         | 153   | 32.72%           | 143   | 10.07%           | 44    | 437   | 3.25  | 0.000 |
| The pharmacist in SFDA guide me about the availability of sanitizer and face mask in the community pharmacies over                                                                 | 5.73%             | 25       | 7.80%   | 34    | 32.80%         | 143   | 40.60%           | 177   | 13.07%           | 57    | 436   | 3.47  | 0.000 |

| Answered | 443 |
| Skipped   | 18  |
Table 4: Patients Actual Expectations of pharmacist during any other pandemic situation.

| Expectation                                                                 | Strongly Disagree | Disagree | Neutral | Agree | Strongly agree | Total | Weighted Average |
|----------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|-------|-----------------|
| The pharmacist in the future had the clinical and administrative privilege as part of pharmacy law | 2.98%             | 13       | 7.57%   | 33    | 27.52%         | 120   | 45.87%          | 200   | 16.06%          | 70    | 436             | 3.64  | 0.000           |
| In the future, the pharmacist open to me, especially medications profile to follow up my medications | 3.44%             | 15       | 5.96%   | 26    | 22.71%         | 99    | 49.77%          | 217   | 18.12%          | 79    | 436             | 3.73  | 0.000           |
| The pharmacist document any drug related problems in the pharmacy patients profile | 3.22%             | 14       | 6.44%   | 28    | 24.37%         | 106   | 47.82%          | 208   | 18.16%          | 79    | 435             | 3.71  | 0.000           |
| In the future, the pharmacist provide vaccines services for adults and geriatrics | 6.42%             | 28       | 11.70%  | 51    | 25.92%         | 113   | 38.30%          | 167   | 17.66%          | 77    | 436             | 3.49  | 0.000           |
| The pharmacist implemented the drug therapy guidelines from MOH | 1.83%             | 8        | 5.73%   | 25    | 22.94%         | 100   | 48.85%          | 213   | 20.64%          | 90    | 436             | 3.81  | 0.000           |
| The pharmacist follow my situation and medications trough software application | 2.52%             | 11       | 8.03%   | 35    | 26.15%         | 114   | 46.33%          | 202   | 16.97%          | 74    | 436             | 3.67  | 0.000           |
| In the future, the pharmacist can make the essential examination | 2.08%             | 9        | 6.24%   | 27    | 22.63%         | 98    | 46.42%          | 201   | 22.63%          | 98    | 433             | 3.81  | 0.000           |
| In the future, the pharmacist can make the advances examination (LDL,HDL,TG,INR) | 4.36%             | 19       | 12.61%  | 55    | 29.59%         | 129   | 37.61%          | 164   | 15.83%          | 69    | 436             | 3.48  | 0.000           |
| The pharmacist used software applications for education for medications and any pandemic situations | 1.83%             | 8        | 5.03%   | 22    | 20.37%         | 89    | 51.03%          | 223   | 21.74%          | 95    | 437             | 3.86  | 0.000           |
| The pharmacist expand their services and will most of my medications request by online and mobile application | 1.14%             | 5        | 4.12%   | 18    | 21.28%         | 93    | 52.63%          | 230   | 20.82%          | 91    | 437             | 3.88  | 0.000           |
| In the future, the pharmacist expand the home delivery for my medications, medical devices and instruments free of charge | 2.97%             | 13       | 7.78%   | 34    | 18.31%         | 80    | 47.60%          | 208   | 23.34%          | 102   | 437             | 3.81  | 0.000           |

Answered 439
Skipped 22

pandemic COVID-19 like monitoring drug therapy response that might be linked to insufficient or unviable documentation of medications history, or there was no linking with patient's medications hospital records. The new system of Wasfaty will resolve this problem in the future. Wasfaty is the latest method of community pharmacist distribution medications on behalf of hospital pharmacies from governmental healthcare sectors.\[^{36,37}\]

Besides, the Wasfaty can solve the other problem of preventing adverse drug reactions and picking the best price for patients. Currently, there are support teams accountable for community pharmacists discussing with physicians or pharmacists any interventions or medication errors. Additionally, the implementation of health insurance might aid the pharmacist set up therapeutic guidelines and a strategic monitoring system of drug therapy.

In the study results, the patients likely several activities from pharmacists in the future. First, the patients wish to enlarge the online requesting of medications by using mobile applications or internet websites. Second, they would like to set up therapeutic guidelines from MOH, which is very supportive in the cost-effective treatment and declining drug-related problems. Third, the patient's wish from pharmacists to deliver vital examinations like checking blood sugar or blood pressure, or cholesterol level, which the MOH allows to deliver by the community pharmacist. Recently, the MOH permits the pharmacist to implement a vaccination program emphasizing COVID-19 vaccines look like the clinical pharmacist role in European countries.\[^{13}\] The patients are less likely to make advance examinations.
Table 5: Factors influencing the perception of Patients Actual Experiences and Expectations of pharmacist (average scores).

| Factors                          | Patients Actual Experiences | Patients Actual Expectations of pharmacist | P-value |
|---------------------------------|----------------------------|--------------------------------------------|---------|
| **Region**                      | N  | Average scores | Std. D  | Median  | Lower Bound | Upper Bound | P-value  |
| Central                         | 48 | 3.3602         | .75378 | 3.3438 | 3.3143      | 3.5790      | 0.000    |
| North                           | 12 | 3.1458         | .56113 | 3.1563 | 2.7893      | 3.5024      |          |
| South                           | 173| 3.5770*        | .80321 | 3.6250 | 3.4564      | 3.6975      |          |
| East                            | 25 | 3.2035         | .68023 | 3.1250 | 2.9227      | 3.4843      |          |
| West                            | 129| 3.2969         | .57599 | 3.2500 | 3.1966      | 3.3972      |          |
| Total                           | 387|               |        |        |             |             |          |
| **Employment**                  | N  | Average scores | Std. D  | Median  | Lower Bound | Upper Bound | P-value  |
| Employee                        | 136| 3.4113         | .68850 | 3.3750 | 3.2946      | 3.5281      | 0.103    |
| Unemployed                      | 68 | 3.4480         | .79668 | 3.3875 | 3.2551      | 3.6408      |          |
| Student                         | 174| 3.4738         | .67030 | 3.4375 | 3.3735      | 3.5741      |          |
| Retired                         | 57 | 3.2930         | .75892 | 3.2500 | 3.0916      | 3.4944      |          |
| Not written                     | 4  | 2.4219         | 1.00568| 2.3750 | .8216       | 4.0221      |          |
| Total                           | 439|               |        |        |             |             |          |
| **Age**                         | N  | Average scores | Std. D  | Median  | Lower Bound | Upper Bound | P-value  |
| < 18                            | 18 | 3.6694         | .62624 | 3.5625 | 3.3580      | 3.9809      | 0.068    |
| 18-24                           | 147| 3.5152         | .74902 | 3.5000 | 3.3932      | 3.6373      |          |
| 25-30                           | 56 | 3.8650         | .74006 | 3.2600 | 3.1668      | 3.5631      |          |
| 31-35                           | 26 | 3.3819         | .71906 | 3.3875 | 3.0915      | 3.6723      |          |
| 36-40                           | 29 | 3.4914         | .78822 | 3.6250 | 3.1916      | 3.7912      |          |
| 41-45                           | 29 | 3.3125         | .56026 | 3.3750 | 3.0949      | 3.5256      |          |
| 46-50                           | 25 | 3.1658         | .64036 | 3.2500 | 2.9015      | 3.4302      |          |
| > 50                            | 57 | 3.2917         | 3.72967| 3.1250 | 3.0981      | 3.4853      |          |
| Total                           | 387|               |        |        |             |             |          |
| **Nationality**                 | N  | Average scores | Std. D  | Median  | Lower Bound | Upper Bound | P-value  |
| Saudi                           | 367| 3.4152         | .72937 | 3.3750 | 3.3403      | 3.4900      |          |
| Non-Saudi                       | 20 | 3.4938         | .66265 | 3.4375 | 3.1836      | 3.8039      |          |
| Total                           | 387|               |        |        |             |             |          |
| **Gender**                      | N  | Average scores | Std. D  | Median  | Lower Bound | Upper Bound | P-value  |
| Male                            | 100| 3.2678         | .76687 | 3.2500 | 3.1156      | 3.4199      | 0.063    |
| Female                          | 287| 3.4720         | .70426 | 3.3750 | 3.3902      | 3.5538      |          |
| Total                           | 387|               |        |        |             |             |          |
| **Academic Qualification**      | N  | Average scores | Std. D  | Median  | Lower Bound | Upper Bound | P-value  |
| Doctorate                       | 18 | 3.1771         | .63675 | 3.0313 | 2.8604      | 3.4937      |          |
| Master                          | 27 | 3.1667         | .64067 | 3.2500 | 2.9132      | 3.4201      |          |
| Bachelor                        | 271| 3.4174         | .72172 | 3.3750 | 3.3311      | 3.5037      |          |
| Diploma                         | 20 | 3.6675         | .76945 | 3.8438 | 3.3074      | 4.0276      |          |
| High school                     | 43 | 3.5500         | .78165 | 3.3750 | 3.3094      | 3.7906      |          |
| Intermediate School             | 8  | 3.5547         | .67185 | 3.2813 | 2.9930      | 4.1164      |          |
| Total                           | 387|               |        |        |             |             |          |
| **Income**                      | N  | Average scores | Std. D  | Median  | Lower Bound | Upper Bound | P-value  |
| < 3,000 SR                      | 179| 3.5262         | .73539 | 3.5000 | 3.4178      | 3.6347      |          |
| 3,001-6,000                     | 29 | 3.3211         | .60682 | 3.2500 | 3.0903      | 3.5519      |          |
| 6,001-9,000                     | 29 | 3.4103         | .70443 | 3.3125 | 3.1424      | 3.6783      |          |
| 9,001-12,000                    | 42 | 3.4003         | .71515 | 3.4063 | 3.1774      | 3.6232      |          |
| 12,001-15,000                   | 44 | 3.4067         | .81044 | 3.4063 | 3.1603      | 3.6531      |          |
| 15,001-18,000                   | 22 | 3.1989         | .69078 | 3.1875 | 2.8926      | 3.5051      |          |
| 18,001-21,000                   | 17 | 3.0515         | .69850 | 2.8750 | 2.6923      | 4.1406      |          |
| > 21,000 SR                     | 25 | 3.2750         | .62656 | 3.0625 | 3.0164      | 3.5336      |          |
| Total                           | 387|               |        |        |             |             |          |
| **Are you from a health care professional?** | N  | Average scores | Std. D  | Median  | Lower Bound | Upper Bound | P-value  |
| Yes                              | 106| 3.4474         | .77618 | 3.5000 | 3.2979      | 3.5969      | 0.402    |
| No                               | 281| 3.4086         | .70658 | 3.3125 | 3.2356      | 3.4916      |          |
| Total                            | 387|               |        |        |             |             |          |
or prescribe medications, and this is normal because the patients think that’s physicians’ job or might need numerous equipment to resemble earlier studies.\(^1\)[2] The patients might be fried to let the pharmacist provide vaccines or prescribe medications not regularly found in local or Gulf countries.\(^1\)[3,4] Further, public information and education with the new job of pharmacists can deliver through community pharmacy is recommended in Saudi Arabia.

Numerous factors might touch the patient’s experiences or expectations of pharmacists during pandemic situations COVID-19. Factors comprise location, employment, age, nationality, gender, academic qualifications, monthly income, and public or healthcare. There are no factors with non-statistically significant differences moving the patient’s experiences or expectations of pharmacists during pandemic situations COVID-19.

There is not any difference between public or healthcare professionals. The only south region had more positive involvements and expectations of pharmacists without a known reason. Moreover, age factor with age (18-24 years) had more positive expectations of pharmacists than others might relate more communication and ask drug information to the pharmacists.

The patient’s experiences during pandemic COVID-19 was decent and more implementation of new community pharmacy are highly suggested in the Kingdom of Saudi Arabia.

**Limitations**

Although informatics as information had been discovered from the existing study, various limitations encompassed the responder’s unequal distribution in the locations, employment, age, gender, academic qualifications, monthly income, the age levels came from female and a young age with student qualifications. Further studies are mandatory with equal distribution of preceding elements.

**CONCLUSION**

The public’s experiences and expectations of pharmacists during COVID-19 were positive. There were no differences between public or healthcare providers in the awareness between pharmacists’ experiences and expectations. There are no factors that mark the responder’s patient’s experiences and the pharmacist expectations. More pharmacist involvement through setting therapeutic guidelines and close monitoring of drug-related problems during the pandemic situation is obligatory in the future.
Table 7: Multiple regression of Factors with the Patients Actual Expectations of pharmacist during any other pandemic situation.

| Model | R     | R Square | F      | Sig. | Unstandardized Coefficients | Standardized Coefficients | t       | Sig. | 95.0% Confidence Interval for B | Collinearity Statistics |
|-------|-------|----------|--------|------|-----------------------------|---------------------------|--------|------|-------------------------------|------------------------|
|       |       |          |        |      | B                           | Std. Error                | Beta   |      | Lower Bound                  | Upper Bound            | Tolerance | VIF |
| 1     | .217b | .047     | 2.349  | .018b| 3.460                       | .324                      | -0.195 | .019| 0.000                        | 2.823                  | 4.098     |     |
|       | Location | -0.006  | 0.029  | -0.011 | -0.195                     | .034                      | -0.063 | .051| 0.016                        | 0.568                  | 1.160     |     |
|       | Site of work | -0.004  | 0.034  | -0.006 | -0.113                     | .011                      | 0.006  | .063| 0.849                        | 0.178                  |           |     |
|       | Age (years) | -0.050  | 0.023  | -0.165 | -2.223                     | .027                      | -0.094 | .006| 0.457                        | 2.190                  |           |     |
|       | Nationality | 0.104   | 0.165  | 0.033  | 0.631                      | .529                      | -0.220 | 0.427| 0.943                        | 1.060                  |           |     |
|       | Gender | 0.111   | 0.085  | 0.069  | 1.304                      | .193                      | -0.056 | 0.277| 0.901                        | 1.109                  |           |     |
|       | Educational level | 0.016   | 0.041  | 0.022  | 0.390                      | .697                      | -0.065 | 0.097| 0.803                        | 1.246                  |           |     |
|       | Monthly income | -0.011  | 0.022  | -0.036 | -0.498                     | .619                      | -0.055 | 0.033| 0.470                        | 2.128                  |           |     |
|       | Are you from a health care professional | 0.094   | 0.085  | 0.060  | 1.118                      | .264                      | -0.072 | 0.261| 0.875                        | 1.143                  |           |     |

a. Dependent Variable: Patients Actual Expectations of pharmacist, Predictors: (Constant), Location, Site of work, Age, Nationality, Gender, Educational level, Monthly income, Are you from the health care professional (Medical Doctor- Dentist- Pharmacist- Nurse- Others),

Bootstrap for Coefficients

| Model | B     | Bias  | Std. Error | Sig. (2-tailed) | 95% Confidence Interval |
|-------|-------|-------|------------|-----------------|-------------------------|
|       |       |       |            |                 | Lower | Upper |
| 1     | (Constant) | 3.460 | 0.011      | 0.348           | 0.001          | 2.758  | 4.161 |
|       | Location | -0.006 | -0.001   | 0.026           | 0.822         | -0.056 | 0.046 |
|       | Site of work | -0.004 | -0.001   | 0.035           | 0.900         | -0.076 | 0.063 |
|       | Age (years) | -0.050 | 0.000    | 0.025           | 0.044         | -0.098 | 0.000 |
|       | Nationality | 0.104  | -0.002  | 0.168           | 0.516         | -0.230 | 0.429 |
|       | Gender | 0.111  | 0.000    | 0.090           | 0.221         | -0.067 | 0.286 |
|       | Educational level | 0.016 | 0.001   | 0.042           | 0.710         | -0.069 | 0.099 |
|       | Monthly income | -0.011 | 0.000   | 0.023           | 0.616         | -0.060 | 0.034 |
|       | Are you from a health care professional | 0.094 | -0.003  | 0.088           | 0.292         | -0.080 | 0.267 |

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

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CONFLICT OF INTEREST
The Authors declare that there is no Conflict of Interest

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Ethical Approval
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ABBREVIATIONS
MOH: Ministry of Health; KSA: Kingdom of Saudi Arabia; COVID-19: Coronavirus; SPSS: Statistical Package of Social Sciences; JASP: Jeffery’s Amazing Statistics Program; Strobe: Strengthening the reporting of observational studies in epidemiology statement: guidelines for reporting observational studies; SFDA: Saudi Food and Drug Authority; CBAHI: Saudi Central Board for Accreditation of Healthcare Institutions.

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