

## **Study Programme – Part One**

### **Abstract**

Although the COVID-19 pandemic was expected to have a significant impact on the mental health of the Jordanian population, there have been few studies to investigate the nature and magnitude of the impact.

The aim of the present study was to assess the potential psychiatric disorders induced by the current pandemic and evaluate the relevant risk factors. A cross-sectional national survey-based study was conducted over 3 months (August to October, 2020) in 12 governorates in Jordan: Amman, Irbid, Ajloun, Jerash, Mafraq, Balqa, Zarqa, Madaba, Karak, Tafilah, Ma'an, and Aqaba using random proportionate sampling; the questionnaire being answered in face-to-face interviews with a randomly-selected sample of the adult population aged 18 years and older, to collect data from 1,820 individuals across the Capital, Central, Northern, and Southern regions of Jordan. The modified Kessler scale was validated by a multidisciplinary committee comprising a psychiatrist, infectious diseases consultant, and a clinical pharmacist. SPSS V26 was used for data analysis.

Our findings indicated that due to the COVID-19 pandemic, 11.4% (207/1820) of participants had severe mental disorders, 25.4% (462/1820) moderate mental disorders, while 34.7% (632/1820) were without any mental issues; 5.5% (101/1820) felt continually tired out, 8.6% (156/1820) felt nervous, and 7% (129/1820) always felt hopeless; 25.4% (463/1820) felt restless most of the time, and 21.8% (397/1820) were more worried about social and economic consequences of the infection than treatment and quarantine.

Predictors for severe mental disorder were: monthly income (<500 JOD) {OR: 3.6, 95%CI: 3.12-7.68, p=0.01}, Employment status (unemployed) {OR: 2.4, 95%CI: 1.45-4.96, p=0.001}, and those diagnosed with diabetes {OR: 1.9, 95%CI: 1.13-3.63, p=0.03}.

COVID-19 pandemic had a notable impact on the mental health of people living in Jordan. People who had low monthly income (<500 JOD) or were unemployed were mostly affected as well as diabetes patients, these cases were recognized as significant risk factors for moderate and severe mental disorders.

Appropriate psychiatric and economic interventions were recommended to improve the mental preparedness for pandemics among the population in Jordan.

## **Study Programme – Part Two**

### **Abstract**

The roles of community pharmacists have been extended in many countries to combat the ongoing pandemic, and given the paucity of information regarding public satisfaction concerning pharmacy preparedness and services during the COVID-19 pandemic in Jordan, the present study aimed to evaluate public satisfaction with community pharmacists' preparedness for the pandemic and the patient education services provided by pharmacists, in addition to investigating public expectation of pharmacists' roles in future emergencies.

A cross-sectional questionnaire was used to collect data from 1,820 adults across the 12 governorate of Jordan using proportionate random sampling. The modified survey was validated by a multi-disciplinary committee including a public health specialist, infectious diseases consultant, and a clinical pharmacist. SPSS V26 was used for data analysis. To avoid researcher/population contact, the questionnaire was delivered electronically as an e-survey on an iPad during face-to face interviews with the study sample. In addition to following COVID-19 safety measures including wearing face masks, maintaining physical distance and hand sanitization.

Our findings detected that 53.4% (971/1820) of our sample were satisfied with the pharmacy services in Jordan during COVID-19, 29.4% (535/1820) agreed 22.6% (412/1820) strongly agreed that during the lockdown, the pharmacies in Jordan operated an efficient home delivery service, but 85.9% (1563/1820) said that remote payment was

not always available. Concerning customer crowding inside the pharmacy, 52.9% (964/1820) agreed and 22.9% (416/1820) strongly agreed on the lack of customer crowding, although 83.5% (1520/1820) of participants thought pharmacists did not provide special attention to geriatric, or 84.0% (1528/1820) education to chronic disease patients about COVID-19. The vast majority, 89.0% (1621/1820) of the included participants thought pharmacists had a major role in the pandemic management, 53.7% (978/1820) thought pharmacists should monitor signs of COVID-19 in patients and optimise their medications, with 80.6% (1467/1820) in favour of reporting suspected COVID-19 cases being one of the pharmacist's roles in Jordan; 55.9% (1017/1820) thought community pharmacies should be immunization points for COVID-19, whereas 64.1% (1167/1820) disagreed with pharmacists in Jordan testing suspected cases of COVID 19 using PCR swab.

During the COVID-19 pandemic, only around half of the participants were satisfied with the pharmacy services in Jordan. In addition, Age, gender, and place of residence (urban/rural) were predictors for satisfaction with pharmaceutical care during the pandemic. Generally, participants were not satisfied with pharmacy education provided; specifically giving adequate oral and written patient education about COVID-19 or providing special attention to geriatric or chronic disease patients. However, participants thought that pharmacists did provide sufficient information about hygiene and hand washing, in addition to counseling the public to maintain physical distance and to stay home. Pharmacists were thought to have a major role in the pandemic management. People believed that in the future, pharmacists should provide more COVID-19 related services .They were trusted to further help in the pandemic situation.

A review of pharmacy practice policy was recommended, particularly relating services to the public during pandemics as well as initiating a pharmacist's emergency protocol.

By

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