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Abstract

Background: Early in the COVID-19 pandemic in Pakistan, complete lockdown was imposed from 24 March 2020: offices, shopping malls, market places, etc. were affected. On 25 March, further restrictions were imposed: hospital outpatient departments were closed and there was a ban on public and private gatherings. The lockdown significantly slowed down economic activities, and halted recreational, educational and religious activities and social gatherings.

Aims: To assess the impact of the COVID-19 lockdown on the quality of life of literate individuals in Pakistan.

Methods: A cross-sectional, descriptive study was conducted from 25 April to 15 May, 2020 among literate Pakistani who understand the English language, aged 10+ years and had internet access. We selected 500 individuals to complete the McGill questionnaire online.

Results: The response rate was 73% (n = 365): 49% males and 51% females. Around one third reported a moderate effect on overall quality of life. Financial life was moderately affected in 45% and both physical life and emotional life in 43% of participants. Spiritual life was excellent in 69%. However, social life was severely affected in 56%. Mild depression was felt by 47% of respondents and 48% felt strongly supported during the COVID-19 lockdown.

Conclusion: The COVID-19 lockdown made little difference to the quality of life of the literate population of Pakistan. A few aspects were moderately affected and social life was badly

affected. Spiritual life improved for most individuals.

Keywords: COVID-19, lockdown, pandemic, quality of life, Pakistan

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Introduction

Wuhan, China, reported its first case of coronavirus disease (COVID-19) in December 2019 (1). By 26th February 2020 the infection had spread outside China (2). Italy was the first country to be affected in Europe and second after China throughout the world in terms of impact (3). Soon the Italian government ordered a nationwide lockdown (4). Spain declared a state of emergency on 14 March and it was followed by similar measures in neighbouring countries (5). Soon, the COVID-19 epidemic spread to 113 countries. Reported registered cases were 118 162 and the mortality rate was 3.63% with 4290 deaths by 11 March 2020 (6). By this date, the World Health Organization had officially acknowledged the COVID-19 outbreak as a pandemic, with a 13-fold increase in the number of cases within just 2 weeks (7).

The Federal Minister of Health in Pakistan confirmed the first 2 cases of coronavirus in Karachi and Islamabad among individuals who had returned from the Islamic Republic of Iran on 26 February 2020 (2,8). Within 15 days, the number of positive COVID-19 cases had reached 20 (9). On 13 March 2020 educational institutes were closed and international flights were suspended (10). Public gatherings in marriage halls, shrines, and festivals were banned from 14 March (11). Complete lockdown was imposed from 24 March (12). Offices, shopping malls, market places, restaurants, parks, and public transport were also shut down (13). On 25 March,

further restrictions were imposed closing outpatient departments of hospitals and a ban on intracity and inter-province public transport and public–private gatherings (14). Despite all these precautionary measures, COVID-19 spread swiftly across Pakistan. About 58% of reported cases were due to local transmission (15). Complete lockdown was extended till 9 May 2020 after which lockdown rules were relaxed.

The closing of borders with other countries and within the country affected diverse groups of individuals. It significantly slowed down economic activities and halted recreational, educational and religious activities and social meetings in the country. The closure of social gathering venues (parks, restaurants, masjids, gymnasiums, etc.), the public transport system, and educational institutions had a significant impact on residents, in quarantine and during the lockdown period (16). Children were at home, employees were working from home, and women were burdened with additional household responsibilities. The upper class was missing social get-togethers, leisure activities and traveling, the middle class was worried about paying utility bills and school fees, the lower class was struggling financially day by day to feed their families. It created fear, anxiety and depression among some individuals. People had a fear of getting infected (themselves or their loved ones), fear of death and other mental distress during this outbreak (17). On the other hand, some individuals finally got time to relax, spend time with their families, pursue their hobbies, improve their relationships and religious life (18,19). This is the first study from Pakistan to report on the impact of lockdown on the quality of life due to COVID-19 among literate individuals in Pakistan.

Methods

Sample

This was a cross-sectional descriptive study conducted from 25 April to 15 May 2020. The study was approved by the ethics committee of Baqai Medical University, number BMU-EC/2020/08(OL). Inclusion criteria were: literate Pakistani individuals, understanding English language, over 10 years old with internet access. Participants who refused to complete the questionnaire and those whose forms were incomplete were excluded from the study. Participants provided informed consent before entering their demographic details. The sample size was 344, calculated with the Raosoft calculator, using a 5% margin of error, 95% confidence level, 20 000 population size and 65% of response distribution (18). The snowball sampling technique was used to recruit participants.

Instrument

The English language version of the McGill questionnaire was used for data collection to determine the physical, emotional, spiritual, financial and social impact of COVID-19 on quality of life among various individuals during the lockdown. It should be noted that access to the online questionnaire was for the duration of one week only.

The McGill Quality of Life Questionnaire was first published in 1996. It is used to assess 4 essential domains of a population, physical and psychological symptoms, outlook on life and meaningful existence (20). It has 24 items scaled 1–10 with written comments at the end. Participant's name was not required on the questionnaire to make it confidential and assure the accuracy of responses. In the first section, basic demographic details were included such as age, sex, marital status, occupation and household income.

In the first domain, questions about the quality of life during the lockdown including physical, emotional, social, spiritual and financial life (5 items) were covered. A score of 1 indicated 'very bad' or 'least desirable' and 10 indicated 'excellent' or 'most desirable'. A higher score would translate to a better quality of life.

The second domain, comprising 8 items, covered physical symptoms such as pain, tiredness, weakness, nausea/vomiting, diarrhoea/constipation, trouble sleeping, shortness of breath, lack of appetite, sweating, immobility, etc. on a 10-point scale, 1 indicating 'no problem' and 10 indicating 'severe problem'. These physical symptoms were graded as mild (score 1–3), moderate (score 4–7) and severe (score 8–10).

Feelings and thoughts were included in the third domain, which had 10 items. The questions covered being depressed, sad, nervous, worthless, loss of control over life and true inner feelings. A score of 1 indicated 'not at all affected' and 10 indicated 'very much affected'. The higher the score in this domain, the more affected the individual. This domain had 3 grades: mildly affected (score 1–3), moderately affected (score 4–7) and severely affected (score 8–10).

In the fourth domain, the participants were asked whether the COVID-19 lockdown had made their quality of life better or worse. The score of 1 on the scale indicated better quality of life and score of 10 indicated a worse impact on quality of life.

The internal consistency reliability of the tool was 0.462–0.852 and test–retest reliability was 0.512–0.861.This tool has been tested for reliability and validity in different populations (20–23)

Data collection and analysis

The questionnaire was set on Google Form and the link was sent to 500 participants online via e-mail and social media applications, including WhatsApp and Facebook. We included literate Pakistani individuals, who understood English language, aged over 10 years, had internet access and enrolled through the snowball sampling technique. Participants who refused to complete the questionnaire and those who submitted incomplete forms were excluded from the study. Participants provided informed consent before entering demographic details. Access to the online questionnaire was for the duration of one week only. Questionnaires returned with complete answers were included for data analysis. Questionnaires with incomplete information were discarded. Data were analysed using Excel. Frequencies were generated for categorical data. Responses were compared among males and females to see the social, spiritual, emotional and financial impact on quality of life.

Results

A total of 500 participants were requested to complete the questionnaire online; 384 responded and among these, 365 forms had complete data. The response rate for participants with complete data was 73%. Data analysis was done on 365 participants, 179 (49%) males and 186 (51%) females. Their ages ranged from 10 to 80 years; the largest group was the 41–50 years age group (24%). Only 4% were aged 61+ years (Table 1). Around one third of the respondents (116) were students, followed by housewives (19%). Almost half the participants (47%) had no income. Other demographic details are given in
Table 1
.

Grading of physical, emotional, spiritual, financial and social life was done according to sex (Table 2
). Physical and emotional life was moderately affected among most of the males and females, i.e. 158 (43%) of total participants. However, social life was severely affected among 204 (56%) participants of both sexes. Spiritual life was excellent among 251 (69%) participants. Just over a quarter (99) were severely affected financially. A similar proportion (94) felt severely depressed, with 117 reporting that they felt very sad and 133 severely worried during the lockdown. Just under half (176) of the participants felt strongly supported (
Table 2
).

Physical life was reported as bad by 25 (31.6%) participants aged 10–20 years. It was excellent in 36 (40.4%) of those aged 41–50 years and spiritual life was excellent in 47 (73.4%) of individuals in age group 31–40 years. Severe depression was reported by 20 (31.2%) individuals aged 31–40 years (Table 3).

Overall quality of life was neither better nor worse in 32% (117) of respondents. Quality of life was reported as being better by 11% (40) and worse by 2.5% (9).

Discussion

The primary outcome of our study was the measure of the effect of the COVID-19 lockdown on the quality of life of literate Pakistani. In this study, for 32% of the participants overall quality of life was neither better nor worse. A similar study conducted in China on the quality of health and mental health of residents of Jinzhou reported a mild stressful impact after the COVID-19 pandemic (18). The study was carried out during the preliminary stages of the disease, in the absence of a lockdown, in Jinzhou city, which is situated away from Wuhan. We started our study on 25 April, after a complete lockdown of the country with nearly 10 000 infected cases. The death toll reported in Pakistan was 192 as of 20 April (24).

The COVID-19 pandemic affected all economic activities and crashed stock markets across the globe. Many businesses were shut down and there was downsizing with widespread employment losses (25). Financial life was moderately affected in 45% and severely affected in 27% of our respondents. Our study did not include labourers working for daily wages or illiterate individuals without internet access. Their outcome may differ from our results. The real-world economy was shaken by the coronavirus, with the suspension of business activities and mandatory stay at home for millions of people. It has been estimated that Pakistan would be left with 25 million unemployed due to the lockdown, pushing millions towards poverty and hunger (26).

The spiritual life of most of the respondents, i.e. 69%, in this study was reported as excellent. Lockdown and the disastrous effect of COVID-19 have certainly caused people all over the world to ponder over their faith. Our study started on 25 April, at the beginning of the holy month of Ramadan. Muslims devote this month enthusiastically to practising their religion. The lockdown probably had a positive impact on the spiritual life of the participants.

Many of the respondents in our study were mildly depressed, sad or worried about the magnitude of the lockdown and the pandemic. Depression was severe in the age group 31–40 years, followed by the 21–30 years group. In contrast a study in Pune, India indicated that the majority of their respondents were not anxious or stressed by the pandemic and lockdown (27).

The social life of participants was the most strongly affected due to the lockdown. In our study, the social life of more than half the respondents i.e. (56%) was badly affected by the lockdown.

On the other hand, 48% of individuals felt strongly supported during the lockdown. Only 18.4% felt not much supported. A Chinese study reported an increase in family and social support among participants during the lockdown (18). More than 60% of participants reported increased support from friends and family during the SARS epidemic of 2003 in Hong Kong (19). Reasons cited for the increase in support by families included slowing of the pace of society, thus bringing families together (19). Families in Pakistan are closely knit, mostly living in an extended family system from grandparents to uncles, aunts and cousins living under one roof. Under these circumstances, lockdown provided excellent family time. They were able to spend more time relaxing, exercising and resting during the pandemic (18). Lockdown had a good impact on building family relations (19).

Globally, the COVID-19 infection caused high mortality along with psychological and mental catastrophe (28). Fortunately, the mortality rate Pakistan was not as high as in other countries like Italy at 7.2%, Spain at 7.3%, the Islamic Republic of Iran at 7.6%, and China at 2.3% (29). Currently, the mortality rate in Pakistan is 1.3% (30). Low mortality rates have caused Pakistan and its population to view the coronavirus as the least of their problems (31). This pandemic has transformed the world. Millions have been infected with the virus and the lifestyles of even non-infected individuals have changed. Lifestyles after the pandemic will be entirely different.

Our study has certain limitations. First was the cross-sectional design as causal associations between factors cannot be established in this study design. Second, this study was conducted in the early stage of lockdown. Data collected during later stages of lockdown may provide different results as around 100 000 lost their jobs and many lost their loved ones during the pandemic. We recommend further studies of the late stage of lockdown to assess the long-term impact and to compare the effects on quality of life among the population. Third, the McGill Quality of Life Questionnaire has been tested for reliability and validity in patients suffering from chronic diseases. However, in our study participants were recruited from the community, hence we acknowledge that the validity and reliability for the general population might be different from that for sick patients.

We have identified through this study that social life and mental health were affected most, so avenues for mental health counselling should be considered for the general population during pandemics or public health emergencies. Economically, COVID-19 has created high level uncertainty and job insecurity among the population. Unemployed people are not only in need of financial help but also mental health counselling.

The strength of this study is its being the first one to investigate the social, spiritual, financial and emotional impacts of the COVID-19 lockdown on quality of life among literate Pakistani

individuals.

Conclusion

The lockdown due to COVID-19 had little effect on the quality of life of literate Pakistani population although some aspects of life (physical, emotional and financial life) were moderately affected and social life was badly affected. Spiritual life was excellent for most individuals.

Funding: None.

Competing interests: None declared.

Impact du confinement dû à la COVID-19 sur la qualité de vie d'une population alphabétisée au Pakistan

Résumé

Contexte : Au début de la pandémie de COVID-19 au Pakistan, un confinement total a été imposé à partir du 24 mars 2020 : les bureaux, les centres commerciaux, les marchés, etc. ont été impactés. Le 25 mars, d'autres restrictions ont été mises en place : fermeture des services des consultations externes des hôpitaux et interdiction des rassemblements publics et privés. Le confinement a considérablement ralenti les activités économiques et a interrompu les activités récréatives, éducatives et religieuses ainsi que les rassemblements sociaux.

Objectifs : Mesurer l'impact du confinement dû à la COVID-19 sur la qualité de vie des personnes alphabétisées au Pakistan.

Méthodes : Une étude transversale descriptive a été menée du 25 avril au 15 mai 2020 auprès de personnes pakistanaises alphabétisées, comprenant la langue anglaise, âgées de 10 ans et plus et ayant accès à Internet. Nous avons sélectionné 500 personnes pour remplir le questionnaire McGill en ligne.

Résultats : Le taux de réponse était de 73 % (n = 365) : 49 % d'hommes et 51 % de femmes. Près d'un tiers ont signalé un effet modéré sur la qualité de vie globale. La situation financière

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était modérément affectée pour

45 % des participants alors que l'activité physique et la dimention émotionnelle l'étaient pour 43 %. La vie spirituelle était excellente pour 69 % des participants. Cependant, la vie sociale a été fortement perturbée dans 56 % des cas. Une légère dépression a été ressentie par 47 % des personnes interrogées et 48 % se sont senties bien accompagnées pendant le confinement dû à la COVID-19.

Conclusion : Le confinement imposé par la COVID-19 n'a eu que peu d'impact sur la qualité de vie de la population pakistanaise alphabétisée. Quelques aspects ont été modérément affectés et la vie sociale a été fortement perturbée. La vie spirituelle s'est améliorée pour la plupart des individus.

تأثير الإغلاق بسبب كوفيد **-19** على نوعية حياة السكان المتعلمين في باكستان

إروم شهيد، أوزما تقي، أوزما فاسيه

الخلاصة

: في وقت مبكر من انتشار جائحة كوفيد -19 في باكستان، فُرِض إغلاق كامل اعتبارًاالخلفية
من 24 مارس / آذار 2020: حيث تأثرت المصالح، ومراكز التسوق، والأسواق، وغير ذلك . وفي 25
مارس / آذار، فُرضت قيود أخرى : فأُغلقت أقسام المرضى الخارجيين في المستشفيات، وفُرِض
حظر على التجمعات العامة والخاصة . وأدى الإغلاق إلى إبطاءِ وتيرة الأنشطة الاقتصادية
إبطاءً ملحوظًا، ووقْفِ الأنشطة الترفيهية والتعليمية والدينية، والتجمعات
الاجتماعية .

: هدفت هذه الدراسة الى إدراك الأثر الذي خلفه كوفيد -19 على نوعية الحياة فيالأهداف
صفوف الأفراد المتعلمين في باكستان بعد الإغلاق .

: أُجريت دراسة وصفية مقطعية في الفترة من 25 أبريل / نيسان إلى 15 مايو / أيارطرق البحث
2020 ، شملت أفرادًا باكستانيين متعلمين، ممن يفهمون اللغة الإنجليزية، وتزيد أعمارهم
على 10 سنوات، ولديهم القدرة على استخدام الإنترنت . واستُخدم استبيان McGill عبر
الإنترنت لتقييم الأثر المترتب على نوعية الحياة .

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ﺔﺳارﺪﻟا ﻩﺬﻫ ﺞﺋاﺰﻨﻟ .ﺔﻴﻧﺎﺴﻨﻟا ﺔﻴﻋﻮﻴﺸﻟا ﺔﻴﻠﻤﻌﻟا ﻞﺒﻗ ﺔﻴﻧﺎﺴﻨﻟا ﺔﻴﻋﻮﻴﺸﻟا ﺔﻴﻠﻤﻌﻟا ﻞﺒﻗ 500 ﺔﻴﻟﺎﻌﻓ ﺔﻨﻴﻋ :
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