Psychological observations of the parents on their children during COVID-19 pandemic social isolation in Jazan, Saudi Arabia

Gassem Gohal¹, Mohammad Zaino², Ibrahim M. Gosadi³

Departments of ¹Pediatrics and ²Family and Community Medicine, Faculty of Medicine, Jazan University, Jazan, ³Faculty of Applied Medical Science, Jazan University, Jazan, Saudi Arabia

ABSTRACT

Background: Social isolation was imposed as the best preventive measure worldwide for the COVID-19 pandemic. We investigated the psychological effects of this measure among Saudi families in the Jazan province to assess its impact on children during this period. Methods: This study was a cross-section investigation conducted in the Jazan province that is located in the southwest part of the country. Data collection was conducted during May 2020 during the country-wide curfew in Saudi Arabia and targeted parents living in Jazan with a minimum of one child above the age of 5 years using a self-administered web-based questionnaire. Results: In total, 408 valid questionnaires were collected. About 50.5% (n = 206) of the parents reported their children as having abnormal psychological observation at the time of their social isolation, which is significantly associated with living status, the number of children (especially when the family has fewer than two children <5 years old), and if any relatives or friends got COVID-19 or quarantined. The psychological effects ranged from anxiety, sleeping disturbance, fear of death, feeling frustrated or bored and violence. Conclusion: Our findings, although limited to observations of parents concerning their children, suggest that social isolation could be a possible risk factor for the development of more serious psychological ramifications in the future such as depression and anxiety.

Keywords: Children, COVID-19, Jazan, psychological observations, Saudi Arabia, social isolation

Introduction

In January 2020, the World health organization (WHO) declared the novel coronavirus (COVID-19) outbreak as a global pandemic. This announcement was followed by the application of preventive measures in several countries, among which social distancing was one of the main applied preventive measures. Social distancing included measures related to the closure of schools and public commercial and governmental establishments where this closure impacted the overall lifestyle of adults and children. The government of Saudi Arabia announced strict policies for social isolation and suspension of most workplaces opening such as schools, college, sports, and religious gatherings. Additionally, Saudi Arabia was one of the countries that applied a curfew in response to the pandemic by the last week of March 2020 where no one was allowed to be in public places without official permission.

As the curfew was lasted for more than 2 months, it was expected that this prolonged and unprecedented curfew and closure of schools is likely to have a psychological impact on children. This notion is supported by several reports indicating that these preventive measures are likely to have a harmful influence on children’s and adolescents’ mental health and may
lead to domestic violence. Unlike other American or European communities, families in Saudi Arabia are relatively large, and children are socially close to their extended family members and senior relatives.

This curfew has impacted the cultural norms related to the gatherings of large families and relatives in multiple events such as the Holy Month of Ramadan and the yearly celebrated Eid-Al-Fitr. Therefore, it can be postulated that these strict social distancing measures can be very challenging to Saudi families, including their children. In this study, we aimed to explore the psychological observations of the parents on their children during the COVID-19 pandemic social distancing in the Jazan province in the southwest of Saudi Arabia. Assessment of psychological observations of children is relevant to the practice of family physicians and primary healthcare physicians, given their roles in the initial assessment and management of psychological conditions before referral to specialized psychiatric clinics.

Materials and Methods

This study was a cross-sectional investigation conducted in the Jazan province, which is one of the 13 administrative provinces in the Kingdom of Saudi Arabia and is located in the southwest of the country, on the northern border of Yemen. Data collection was conducted in May 2020 during the country-wise curfew in Saudi Arabia and targeted parents living in Jazan with a minimum of one child above the age of 5 years. The ethical approval was obtained from the research ethics board of the University of Jazan, Saudi Arabia (approval number REC41/5/100).

Data collection was conducted via a web-based survey. The data collection tool was developed after consulting the relevant literature. The main components of the survey were obtained from the study by Hawryluck et al. that investigated psychological effects reported by individuals who were quarantined due to severe acute respiratory syndrome (SARS). The developed questionnaire was self-administered and composed of multiple-choice questions designed to measure family demographics such as subjects’ age, sex, social status, marital status, educational level, occupation, living status, family income, and presence of psychological observations during the curfew. Variables that measure these psychological observations were: if the parents noticed at least one of the following changes: sleeping difficulty, fear of hearing the name of coronavirus, repeating the fear expression of death, not wanting to eat, feeling frustrated or bored, violence against self or others, involuntary urination or defecation, or demonstrate some symptoms of disease in its absence.

The survey instrument was initially reviewed by a consultant in pediatrics with clinical training in children's mental health. Additionally, the survey tool was completed by a sample of 10 parents in its web-based format to ascertain its face validity and readability in an Arabic-speaking community. Afterward, it was distributed as a link via social media targeting parents living in the Jazan Province. Parents who were not living in Jazan were excluded, and a convenient, non-random, snowballing sampling approach was utilized to ensure appropriate recruitment of the sample.

The statistical Package for Social Sciences (IBM SPSS) version 20.0 (SPSS Inc., Chicago, IL, USA) was used for the analysis of data imported from the Excel file. Descriptive analyses were conducted to present the frequency of basic characteristics of the sample obtained. Cross tabulation was created for questions measuring psychological observations reported by the parents concerning their children. Finally, logistic regression analyses were conducted to investigate factors associated with the presence of a minimum of one psychological observation. A P value of <0.05 was designated as statistically significant for the applied statistical tests.

Results

The total number of participants in the study was 408 and their demographic characteristics are described in Table 1. The proportion of male participants was 63.7% and most of them were between 35 and 45 years of age (43.9%). Approximately all participants (98.0%) were married, more than half of them were government employees and 13.7% of the parents were health practitioners. More than two-thirds of them (69.9%) had academic or university-level education. A quarter of the subjects (25.5%) were living in a village close to the hospital, whereas 20.1% were living in a village far from the hospital.

Among the participating parents, about 51% parents (206) reported having a minimum of one psychological observation during the curfew. Figure 1 is a cross-tabulation of psychological observations noticed and reported by parents concerning their children during the COVID-19 curfew in Jazan, Saudi Arabia. The most frequently noticed psychological observation was related to noting their children feeling weary or board followed by the fear of coronavirus disease name. The least observed psychological observation was related to urination or defecation non-volitionally. The cross-tabulation was helpful to identify observations that were reported simultaneously, where fear of coronavirus disease name and feeling weary or bored was simultaneously observed among 24 parents, followed by feeling weary or bored and violence against self or third party that was observed by 20 parents.

An association between having a minimum of one psychological observation by the parents on their children and measured demographic characteristics is displayed in Table 2. Forward stepwise (wald) multiple logistic regressions were used to analyze the relation among outbreak event exposures and mental difficulties experienced by children during the COVID-19 pandemic. Only variables (predictors) that showed a bivariate significant difference in affecting the mental difficulties of children are shown. The results indicate that the residence
Discussion

This survey explored the psychological observations of the parents on their children during the COVID-19 pandemic social distancing in the Jazan province during the curfew. Among the participating parents, half of our sample observed a minimum of one psychological observation. The observations were related to anxiety, sleeping difficulties, fear of death, frustration, and boredom. Living near hospitals, having a better financial status, and having a relative or a friend affected with COVID-19 were associated with higher odds of observing a minimum of one psychological observation by the parents on their children.

Psychological observations identified in our investigation are consistent with other findings identified in a review assessing the psychological impact of quarantine. Nonetheless, our study was able to identify certain factors that could be associated with the observing psychological issues by the parents. Our investigation was able to detect a potential influence of residence location on observing psychological observations where living nearby a hospital can be associated with the development of psychological issues in comparison to those who are living in villages far from hospitals. The evidence concerning the influence of living nearby hospitals on the development of psychological issues in children is lacking and can be an area for further investigation. The strongest factor that was associated with observing psychological issues on children detected in our investigation was having a relative affected with the disease or being subjected to isolation. This finding was similar to another similar investigation conducted in Bangladesh involving 384 parents, where having a relative affected with COVID-19 was associated with the presence of mental health disturbances among children.

Limitations

Our investigation had limitations related to the nature of the data collection process conducted during the curfew and based on a web-based survey. This assessment method is highly dependent on parents’ observations and not reliant on actual clinical assessment.

Conclusion

Our findings, although limited to observations of parents concerning their children, can suggest that social isolation could be a possible risk factor for the development of more serious psychological ramifications in the future such as depression and

| Variable             | Group          | n  | %  |
|----------------------|----------------|----|----|
| Parent               | Mother         | 148| 36.3|
|                      | Father         | 260| 63.7|
| Age, Years           | <25 years      | 16 | 3.9 |
|                      | 25-35 years old| 112| 27.5|
|                      | 35-45 years old| 179| 43.9|
|                      | 45-55 years    | 89 | 21.8|
|                      | >55 years      | 12 | 2.9 |
| Social status        | Married        | 400| 98  |
|                      | Divorced       | 7  | 1.7 |
|                      | Widower        | 1  | 0.2 |
| Education level      | Primary        | 10 | 2.5 |
|                      | Average: secondary | 95 | 23.3|
|                      | Academic       | 204| 50  |
|                      | Postgraduate   | 81 | 19.9|
|                      | Others         | 18 | 4.4 |
| Occupation           | Student        | 2  | 0.5 |
|                      | Government employee | 211| 51.7|
|                      | Soldier        | 41 | 10  |
|                      | Health practitioner | 56 | 13.7|
|                      | Private sector employee | 23 | 5.6 |
|                      | Free business  | 11 | 2.7 |
|                      | Housewife      | 50 | 12.3|
|                      | I do not work  | 14 | 3.4 |
| Residence            | A village close to the hospital | 104 | 25.5|
|                      | A remote village from the hospital | 82 | 20.1|
|                      | City (without building yard) | 114 | 27.9|
|                      | City (building courtyard) | 108 | 26.5|
| Opinion about financial status after quarantine | Excellent | 185 | 45.3|
|                      | Moderate       | 196| 48  |
|                      | Weak           | 27 | 6.6 |

Table 2: Logistic regression analysis of factors associated with at least one change noticed on children by their parents during the quarantine time

| Covariates variables                                                                 | B    | S.E.  | Wald  | P     | Adjusted odds ratio OR (95%CI) |
|--------------------------------------------------------------------------------------|------|-------|-------|-------|-------------------------------|
| Residence location (Ref. a village far from the hospital)                            |      |       |       |       |                               |
| A village close to the hospital                                                      | 0.90 | 0.31  | 8.18  | 0.004 | 2.45 (1.33-4.52)              |
| City (without building yard)                                                         | 0.77 | 0.31  | 6.36  | 0.012 | 2.17 (1.19-3.96)              |
| City (building courtyard)                                                            | 0.72 | 0.32  | 5.01  | 0.025 | 2.04 (1.09-3.82)              |
| Financial status after quarantine (Ref. weak)                                        |      |       |       |       |                               |
| Excellent                                                                            | 0.48 | 0.22  | 4.86  | 0.027 | 1.61 (1.05-2.47)              |
| Moderate                                                                             | 0.82 | 0.44  | 3.49  | 0.062 | 2.27 (0.96-5.35)              |
| Relatives got corona or isolated for suspect (Ref. yes)                              | 1.36 | 0.58  | 5.55  | 0.018 | 3.88 (1.26-12.01)             |

Variables that are involved in the model: parents, living status, financial status after quarantine, relatives who were infected with COVID-19 or isolated for a suspect, number of children.
anxiety. This can be further augmented by targeting specific groups, such as those living nearby hospitals or having families with higher financial standards, or those with affected relatives as vulnerable groups who are subjected to higher odds of developing serious psychological conditions in comparison to other groups in the community. In conclusion, psychological effects during COVID-19 social isolation, especially among children, should be predicted earlier to prevent serious consequences. Parents and health care providers should be able to anticipate these observations to enable early intervention. Emphasis should be applied to groups identified as vulnerable groups in our investigation such as children with affected relatives and children living nearby hospitals.

Availability of data and materials
The datasets used and/or analyzed during the current report are available from the corresponding author on reasonable request.

Ethical approval
The Ethical approval was obtained from the research ethics board of the University of Jazan, Saudi Arabia (approval number REC41/5/100).

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Conflicts of interest
There are no conflicts of interest.

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