

Effect of Social-platform Psycho-education regarding Children's Health on Mothers' Knowledge, Practice, and Anxiety during Covid-19 Outbreak

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Abstract

Background: The existence of a pandemic disease such as COVID-19 may raise the disease's risk among children, which can have several negative implications, including increased concern and anxiety among mothers over their children's health and physical and mental well-being. **Aim:** To investigate the effect of social-platform psycho-educational regarding children's health on mothers' knowledge, practice, and anxiety during covid-19 outbreak. **Design:** A quasi-experimental research design was used to accomplish this study. **Setting:** This study was applied in Egypt at Sohag City. **Sample:** - A total purposive sample of 400 mothers from 10 and 30 May 2020 by using an online questionnaire via Google Form. **Tools:** Four tools were utilized: Tool I: Mothers' knowledge regarding covid-19, Tool II: Mothers' practice regarding covid-19, Tool III: Future anxiety scale, and Tool IV: Mothers'satisfaction with social-platform psychoeducational interventions. **Results:** The study findings revealed that mothers had a higher score of knowledge and practical knowledge post- social-platform psychoeducational interventions compared to pre-intervention regarding COVID-19. There was a decrease in the studied mothers' anxiety levels during COVID-19 post the social-platform psychoeducational interventions. There was a positive correlation between mothers' total knowledge, practical knowledge, and anxiety. scores at the 0.01 level of significance regarding COVID-19 post-intervention. **Conclusion:** The study concluded that social-platform psychoeducational interventions regarding their children's health during Covid-19 Outbreak have a positive effect on improving mothers' knowledge, and practice, and reducing their anxiety levels. **Recommendations:** Providing mothers with a well-planned health education program to improve their knowledge and practice regarding Covid -19 and reinforce possible interventions is essential to support and help in psychological adjustment.

Keywords: Anxiety, Covid-19, Knowledge, Practice, Mothers, Psychoeducational, Social-platform.

Introduction:

The COVID-19 illness is caused by the SARS-CoV-2 virus, which is responsible for the deadliest pandemic epidemic of the new century. (Khoshaim et al., 2020). On 12 March 2020, the World Health Organization (WHO) proclaimed COVID-19 a pandemic (Viner et al., 2020). Worldwide, about 3 million positive cases have been verified as of April 2020; 20,000 people had died as a result. Egypt has been one of the worst-hit nations in the Eastern Mediterranean, with 11,228 confirmed cases and 592 fatalities (WHO, 2020). COVID-19 is linked to increased anxiety and fear in mothers all around the world for their children's health. Children's physical health is harmed by infectious illness epidemics, which can have a negative

psychological influence on their mothers (WHO, 2020).

As the primary caregiver for the children, the mother performs a vital role. Anxiety and despair have been linked to them. The presence of pandemic disease as COVID-19 may increase the risk of the disease among children and can lead to several consequences such as increased fear and anxiety levels of their mothers regarding their children's health (Brooks et al., 2020). COVID-19 containment measures were thought to have harmed psychosocial family functioning and increased the incidence of depression among mothers (Cameron, et al., 2020).

Mothers of children may also be subjected to additional sources of psychological

discomforts, such as their children's health and safety. Mothers during the COVID-19 pandemic expressed higher levels of worry and fear than they did before the epidemic. Even though children are at a lower risk of infection, COVID-19 has had an impact on them as a result of school closures and outdoor restrictions (Davenport, et al., 2020).

Mothers have observed a shift in their children's conduct during the pandemic, including a lack of discipline and hyperactivity. As a result of the epidemic, the likelihood of maternal psychological distress has increased, and the negative consequences of the pandemic may put children in danger (Morelli, et al., 2020).

Mothers are more concerned about their children's health and safety (UNICEF, 2020). About 85 percent of mothers said they are "very concerned" or "somewhat concerned" about the coronavirus and 82 percent stated their children will be unable to follow the physical separation recommendations. Mothers are likely to be concerned about their children since they have adequate food at home and have access to the technology they need to educate their children at home. Furthermore, people are concerned and stressed about the coronavirus, which has a significant negative influence on their mental health and has caused specific unfavorable consequences owing to anxiety caused by the infection during the coronavirus pandemic (Lunna et al., 2020).

Future Anxiety (F.A.) is defined as a state of uncertainty, fear, and worry concerning threatening changes in one's future. It's natural for mothers to think about their children's future because they want them to be the healthiest, happiest adults. Having a predilection for thinking about the future might lead to F.A. Mothers having a greater sense of security and hope for the future than individuals at any other period of life. With F.A., people have a hard time with humor, suffer from more unpleasant psychological symptoms, and don't believe they'll be able to handle challenging events in the future. As a result, mothers and society should pay attention to the problem of F.A. (Kaya & Avcı, 2016).

In addition, the rapid distribution of Covid-19 has been accompanied by an increase

in media coverage (Chan et al., 2020). Individuals were badly harmed due to this information being disseminated to the public (Lu et al., 2020). Adolescents who spend a lot of time reading and watching the news on COVID-19, particularly on social media, may become confused and view COVID-19 as less dangerous than it really is (Baloran et al., 2020). Due to a lack of knowledge or misinterpretation of COVID-19, these mothers are more worried and scared of illnesses (Maarefvand et al., 2020). In addition, every hour, the media reports on the number of newly confirmed infections and the number of recently reported fatalities from COVID-19 in all countries. Individuals, particularly teenagers, are, as a consequence, anxious and worried as a result of this knowledge (Yang et al., 2020).

As a result, a lack of awareness and misconceptions regarding COVID-19 may contribute to worry and psychological suffering. Assessing mothers' knowledge is particularly crucial for detecting gaps and boosting existing preventive efforts since mothers may have distinct information demands (Podder et al., 2019). Mothers must be provided with the proper information, talked to about their fears "both real and imagined," learn to identify and challenge their negative thoughts, and be given a sense of some control over their children's risk of infection to cope with their anxiety and adjust to this new situation (National Association of School Psychologists 2020).

"Evidence-based therapies for anxiety disorders include psychoeducation as a key component" (Cassie et al., 2020). Cognitive-behavioral therapy (CBT) is a multi-component treatment that includes a psychoeducation as one component. Psychoeducation aims to empower the client and help them develop appropriate coping techniques (Hedman & Axelsson, 2019).

The digital revolution has opened up new possibilities for expanding access to effective treatments for mental health conditions (Holmes et al., 2018). There is emerging evidence that technology-delivered psychological therapy is effective for anxiety and other mental health issues in mothers (Podina et al., 2016). Online therapy may be accepted easily because it may save money and

time, reduce the risk of covid-19 infection, and alleviate social stigma (**Livingstone et al., 2011**).

Pediatric nurses have an essential role in teaching service users and caregivers, delivering health education in society, and encouraging the growth of other multidisciplinary team members as teachers and advisors (**WHO, 2020**).

Nursing management regarding COVID-19 should focus on preventing the spread of infection. Pediatric nurses have an important role as teachers and advisors in educating service users and caregivers, providing health education in society, and in facilitating the development of other multidisciplinary team members. They should teach the mothers to apply the ideal handwashing technique, follow the social distance, use the disinfectant materials such as alcohol, avoid shaking hands, put a tissue when coughing or sneezing on the mouth and nose, and wear a mask to prevent the infection transmission. Also, educating the mothers to encourage the child not to touch the eyes, nose, and mouth, about appropriate hand washing after contact with others, sneezing, or coughing and they should be discouraged from sharing towels, washcloths, and getting a separate bottle for each family member (**WHO, 2020**). The most important duty of pediatric nurses and psychiatry health nurses is to provide a health education program about Covid -19 and its preventive measures to avoid infection and decrease physical and psychological issues, as well as emotional support for mothers (**Eyimaya & Irmak, 2021**).

Significance of the study:

There is an increased flow rate of children with COVID-19 in Egyptian 2020, mostly school-age children. COVID-19 pandemic has significantly impacted a large number of children worldwide (**Galindo et al., 2021**). Children and adolescents are particularly vulnerable to COVID-19 according to studies (**Nikolopoulou & Maltezou, 2021**). Children under the age of 18 are estimated to account for around 8.5 percent of all reported cases (**WHO, 2021**). In Egypt, thousands of cases from various age groups, have been documented since the diagnosis of the first case of COVID-19, including children (**Baki et al., 2021**).

Mothers face a unique set of challenges as they attempt to balance the needs of their children, especially their health. Children were a significant danger of contracting a sickness with several implications, increasing their mother's fear and anxiety. As caregivers, mothers have a lot of concerns and worries regarding their children's health. In Egyptian 2020, the number of children infected with COVID-19 is expected to rise. As mothers try to balance the demands of their children, particularly their health, they encounter a unique set of problems. Mothers are concerned about the impact of the coronavirus on their children's health. Mothers of children have discovered that the majority of their children are susceptible to diseases, particularly respiratory infections, and have inadequate understanding and actions related to COVID-19 prevention COVID- 19. Sufficient support and knowledge for mothers about COVID-19 may decrease their anxiety levels and indirectly achieve better outcomes for mothers and their children. So, this research was conducted to investigate the effect of social-platform psycho-educational regarding children's health on mothers' knowledge, practice, and anxiety during covid-19 outbreak.

Operational definitions:

Social media platforms are web-based communication tools that enable people to interact with each other by sharing and consuming information. Available social media in this article are Mobile phones, Messenger, and WhatsApp (**Gonzalez-Padilla & Tortolero-Blanco, 2020**).

Aim of the study:

To investigate the effect of social-platform psycho-educational regarding children's health on mothers' knowledge, practice, and anxiety during covid-19 outbreak through:

- Assessing the mothers' knowledge about Covid-19 pre and post-social-platform psychoeducation.
- Assessing the mothers' practice regarding Covid-19 pre and post-social-platform psychoeducation.
- Assessing the mothers' anxiety regarding Covid-19 pre and post-social-platform psychoeducation.

- Determining the association between mothers' knowledge, practice, and their anxiety pre and post-social-platform psychoeducation.

Research hypothesis:

Social-platform psychoeducational will have a positive effect on improving mothers' knowledge, practice, and reducing their anxiety levels regarding their children's health during the Covid-19 outbreak

Subjects and Methods

Research design:

A quasi-experimental research design was used to accomplish this study with a pre /post-test used in the study for the evaluation of knowledge in applying the information presented in a training session or with the introduction of a new concept.

Research Setting:

This study was conducted in Sohag City, Egypt, using an online questionnaire via Google Form and submitting the following link(<https://docs.google.com/forms/dle/1FALPQKsd>)

Subjects:

A total purposive sample of 400 mothers was obtained from social media such as Facebook and WhatsApp groups who met the inclusion criteria; were between the ages of 20–40, were educated mothers, already use social platforms, and agreed to participate in this study, no history of mental illness, and all of them took the pre-and post-test. These mothers completed an online via Google Form that was opened on 10 and 30 May 2020 for about twenty days after the lockdown and after the link was closed.

Tool of the study:

Four tools were used in the current study:

Tool I: Mothers' knowledge regarding Covid-19, which included two parts:

Part 1: Demographic data of mothers: It included demographic characteristics of the studied mothers which consisted of 4 items related to age, educational level, occupation, and residence.

Part 2: Mothers' knowledge regarding Covid-19:

It was developed by the researcher post-reviewing recent literature and consisted of 33 questions. Regarding general knowledge of Covid-19 (6 questions), symptoms and methods of transmission (10 questions), treatment and prevention (7 questions), and personal protective measures (10 questions) to prevent the spread of infection as hand washing, wearing the mask, use disinfectant materials like alcohol, avoid shaking hands, put a tissue when coughing or sneezing on the mouth and nose and social distance that was introduced to mothers through the interventions by the What's App and Facebook groups (Chan et al., 2020; Baloran, 2020; Saravanan et al., 2020)

The scoring system

The total mothers' knowledge percentages were calculated for known and unknown answers. Each complete correct answer was given (2 marks) and the incomplete correct answer was given (1) and (zero mark) for wrong or unknown answers. For each area of knowledge, the scores of the items were summed up and the total answers were divided by the number of the items, giving a mean score for the knowledge. Then, these scores were converted to a percentage score. Mothers' knowledge was considered satisfactory if the percentage score was 60% or more and unsatisfactory if was less than 60%.

Tool II: Mothers' reported practice regarding Covid-19 was about the ideal hand washing technique (WHO, 2020) which was demonstrated and measured through a video by the What's App and Facebook group, wearing the mask, use disinfectant materials like alcohol, avoid shaking hands, put a tissue when coughing or sneezing on the mouth and nose and social distance.

Scoring system for mothers' reported practice:

The steps which was done correctly were scored (1), and the items not done were scored zero. For each area, the scores of the items were summed up, and the total was divided by the number of the items, giving the mean score for the part. These scores were converted to a percentage score. The mother's performance was considered Adequate if the percentage score was 60% or more and inadequate if was less than 60%.

Tool III: Future anxiety scale

It was developed by **Shekhair (2005)** and modified by the researchers based on our culture, as illustrated in the following table. It includes five domains (20 items): fear and worries about the future (4 items), despair of

the future (5 items), worry about thinking about the future (5 items), health and death anxiety (3 items), and future anxiety related to the problem (3 items).

Domain	Items number of a standardized tool	Items number of modified tool
Fear and worries about future	1, 2, 5, 15, 27	1, 5, 15, 27
The despair of the future	4, 7, 8, 9, 12, 16	4, 8, 9, 12, 16
Worry thinking about the future	3, 6, 11, 13, 14, 23, 28	11, 13, 14, 23, 28
Health and death anxiety	10, 18, 19, 25, 26	19, 25, 26
Future anxiety related to the problem	17, 20, 21, 22, 24	17, 21, 24
Total future anxiety	1 – 28	1 – 20

The Scoring system:

Five Likert Scale was used as 4 refers to never; 3 refers to maybe; 2 refers to moderate; 1 refers to a lot and 0 refers to always, and the reverse statement had reverse scores as zero refer to never; one score refers to maybe; two refer to moderate; three refer to a lot, and four refer to always. Total scores ranged from 0 – 80 and were categorized as low (0 – 15), mild (16 – 31), moderate (32– 48), high (49– 64), and very high (65 – 80).

Tool IV: Mothers'satisfaction with social-platform psychoeducational interventions: it included three statements regarding the contents of the social-platform psychoeducational interventions were enough, satisfaction with the social platform psychoeducational interventions, did social-platform psychoeducational interventions improve mothers' knowledge and practices, and reduced their anxiety.

The procedure of data collection:

Preparatory phase:

The researchers reviewed the current and past available literatures the available textbooks, articles, magazines, and internet searches to develop the tools for data collection and prepare the social-platform psychoeducational interventions. Before starting the study, an official letter was addressed from the Dean of the Nursing Faculty to the directors of Sohag University Hospital to obtain their approval and cooperation in gathering data from the selected setting.

Validity of the tools:

Face and content validity of the tools for clarity, comprehensiveness, appropriateness, and relevance by a board of five experts professors, one professor in community health nursing, two professors in pediatric nursing, and two professors in psychiatry health nursing with more than ten years of experience in the fields were assessed; the board ascertained the face and content validity of the tools. The content validity index (CVI) was 89% for the tool

Reliability of the tools:

Reliability was assessed through Cronbach's alpha reliability test $\alpha = 85\%$ which revealed that the first tool, consisted of relatively homogenous items as indicated by high reliability, $\alpha = 82\%$ which revealed the reliability of the second tool, reliability of the third tool was $\alpha = 919$, and reliability of the fourth tool was $\alpha = 913$. The tools' reliability was estimated by using the Pearson correlation coefficient test to compare variables. The Pearson correlation coefficient for the variables ranged between ($P. < 0.5$) and ($P. < 0.001$), which indicated a highly significant positive correlation between the variables of the subjects.

A pilot study

After the development of the tool, a pilot study was conducted on 10% of the mothers (40 mothers). It was excluded from the total sample. It was done to notice any ambiguity in the tools, to ensure transparency of the items, as well as, to determine the time devoted to data collection. The clarity and testing of the feasibility of the research process needed for

modifications were carried out based on the results of the pilot study to develop the final form of the tools.

Ethical considerations:

Official permission was obtained through an issued letter from the Dean of Faculty of Nursing, Sohag University to conduct this study. The purpose of the study was explained to the mothers in the first part before starting the questionnaire the researcher informed the participants that, the study was voluntary, they were allowed to refuse to participate and they had the right to withdraw from the study at any time, without giving any reason. Moreover, they were assured that their information would be confidential and used for research purposes only.

The Implementation of the study was carried out in three phases (assessment phase, implementation phase, and evaluation phase).

I-Assessment phase:

The actual fieldwork was carried out starting from 10 May 2020 to 30 May 2020. The researchers used the online Google form spreadsheet to create the research. They shared a link to the participant mothers to collect data that included an online questionnaire. This link was presented in Facebook and What's App groups. On the first page of the questionnaire, the mothers were informed about the background, objectives, and expected outcomes of the study.

The link; <https://docs.google.com/forms/dle/1FALPQKs> was sent to all the studied mothers to identify their knowledge and future anxiety during the Covid -19 outbreak (pre-psychoeducational intervention).

The online questionnaire and the future anxiety scale were used twice. The first time, these were used as a pretest for the assessment of mothers' knowledge about COVID -19 and their reported practice of handwashing techniques, and their level of anxiety. Then, these tools were used another time as a follow-up after one week to investigate the effect of social-platform psychoeducational interventions on mothers' knowledge, practice, and anxiety regarding their children's health

during the Covid-19 outbreak. All questions and responses were according to the recent recommendations by the WHO.

The average time spent on mothers' completion of the online questionnaire and the future anxiety scale was approximately 25 minutes. Each mother involved in the study was informed about the purpose of the study, the components of the tools, and how to answer the online questionnaire and the scale.

The psychoeducation contents were distributed by the researchers to the participant mothers in What's App and Facebook groups after clarifying the purpose of the study, and the researchers explained to the mothers how to use the psychoeducation.

II- Implementation Phase:

Data were collected from 10 May 2020 to the end of May 2020 for about 20 days after the lockdown and after the link was closed. The researchers started by introducing themselves and describing the study's nature and goal to the mothers. Participants were asked to fill out and submit a Google Form that had been prepared online. The Google form link was shared with women via Facebook and WhatsApp groups during the COVID-19 outbreak. Before the online films and presentation, each mother was tested using an online questionnaire as a (pretest) to obtain baseline data. Mothers were educated about the study's goal and expected outcomes, the tools' contents, and how to answer on the first page of the online questionnaire. In this phase, the researchers met the study subjects online through Zoom meetings through voice calls, videos, and chat.

Sessions were performed in the Arabic language to ensure that all study subjects were understood, which included (six theoretical and practical sessions). The duration of sessions for each theoretical and practical session ranged from 50-60 minutes for two days per week.

The booklet was delivered to women who participated in the pre-test via Google Form via Facebook and WhatsApp groups. The researchers created movies, PowerPoint slides, and posters about menopause to help women understand it better. Furthermore, to increase women's understanding, attitude, and practices

during COVID 19 lockdown, the researchers created online videos and audio describing the contents of the booklet.

The content of the psychoeducational interventions is presented in the following table

Session NO	Subject content	Teaching methods
1	An introductory session that emphasized establishing rapport between the researchers and the studied adolescents participating in the study and explanation of the purpose of the program	<ul style="list-style-type: none"> • Discussion
2	Education about Covid-19 definition, causes, manifestation, methods of transmission, complications, and coronavirus hotline.	<ul style="list-style-type: none"> • Powerpoint presentation • Discussion
3	Education about ways of protection from Covid -19(how to put on, use, take- off, and dispose of a mask and the correct way for hand washing).	<ul style="list-style-type: none"> • Teaching videos
4	Education about future anxiety (definition, symptoms of future anxiety resulting from Covid -19) Tips for dealing with anxiety during Covid-19 as good communication with others, dealing with negative thoughts, maintaining a healthy daily routine, giving and taking support from family, friends, and others to enhance the sense of security.	<ul style="list-style-type: none"> • Powerpoint presentation • Discussion
5	It consisted of techniques to cope with future anxiety during the Covid-19 outbreak as notifying the studied adolescents about meditation (definition, steps of meditation) and the importance of practicing exercises such as deep breathing exercises, muscle relaxation exercises, and yoga exercises.	<ul style="list-style-type: none"> • Powerpoint presentation • Teaching videos
6	Summary of the program and the studied adolescents were asked to answer the questionnaire in the online link immediately post psycho-educational intervention.	<ul style="list-style-type: none"> • Discussion

Evaluating the social platform psychoeducation:

The social platform instructions were evaluated by five experts professors, one professor in community health nursing, two professors in pediatric nursing, and two professors in psychiatry health nursing. The research experts in the fields ensured clarity and appropriateness by reviewing the social platform psychoeducation and contents regarding Covid-19.

The general objectives of the social platform psychoeducation were to improve mothers' knowledge, practice, and anxiety regarding their children's health during the Covid-19 outbreak.

Specific objectives: At the end of the social platform psychoeducation the studied women were able to:

- 1- Define Covid-19.
- 3- List symptoms of Covid-19.
- 4- Enumerate causes of Covid-19.
- 5- List methods of transmission of Covid-19.
- 6- List complications of Covid-19.
- 7- Identify coronavirus hotline
- 8- Define future anxiety.

9- List symptoms of future anxiety resulting from Covid-19

10- Apply and discuss techniques to cope with future anxiety during the Covid-19 outbreak.

III. Evaluation phase:

The questionnaire was re-posted to the participants on the Google Form for collecting after one month of sending the booklet, videos, PowerPoint presentation, and posters (post-test) using the same pre-test tools (tool I (part 2), II, and III).

Statistical analysis:

Data entry and statistical analysis were performed using SPSS for Windows, version 20. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables and mean and SDs for quantitative variables. Differences between two means tests (t-test) were used. Statistical significance was considered at P-value <0.05.

Results

Table (1) shows the demographic characteristics of the studied mothers. It was observed that (46%) of the studied mothers were in the age range from 20 < 30 years with a mean age of 26.4±2.3 years. Concerning educational

level, more than one-third (36%) of them had a bachelor's degree, 70% of mothers were housewives and (72%) of them were living in urban areas.

Figure (1): Portrayed that 72% of the studied mothers reported that their main source of information about knowledge regarding Covid-19 was doctors.

Table (2): Illustrated that there were highly statistically significant differences in the studied mothers' general knowledge about Covid -19 in pre/post social platform psychoeducation (P-value:0.0001). The mean score of the studied mothers' knowledge regarding preventive measures and treatment of Covid -19 was 3.0 ± 1.9 for pre-social platform psychoeducational interventions while it was 6.8 ± 0.4 for post-social platform psychoeducational interventions with highly statistically significant differences (P-value:0.0001). This table also showed a highly statistically significant difference in the total knowledge scores.

Figure (2) showed that most of the mothers (91%) had an unsatisfactory level of knowledge about COVID- 19 in the pre- post-social platform psychoeducation but in post-social platform psychoeducational interventions, (92%) of them had a satisfactory level of knowledge.

It was observed from **tables (3)** that, most of the mothers had less preventive measures practices scores about Covid-19 pre-social platform psychoeducation, especially in wearing a mask, using disinfectant materials like alcohol, and avoiding shaking hands. Post social platform psychoeducational interventions, highly statistically significant improvements were observed in mothers' knowledge about the preventive measures regarding COVID -19 in all tested areas ($P < 0.001$).

Figure (3) clarified the total practices score of the studied mother's pre and one-month post-social platform psychoeducation. It was noticed that (83%) of the studied women had inadequate practices toward COVID -19 pre-social platform-psychoeducation and decreased to become 11% one-month post-social platform-psychoeducation. Reversely, 17% of the studied mothers had adequate practices regarding COVID-19 pre-intervention compared to 89 % one-month post- social platform-psychoeducation.

Table (1): Distribution of the Studied Mothers according to their Demographic Characteristics (n=400)

Table (4): Represented that there was a decrease in the mean score of fear and worries about the future among the studied mothers post the social platform psychoeducation compared to pre-social platform psychoeducation with highly statistically significant differences ($P < 0.0001$). The mean score of health and death anxiety was 6.6 ± 3.3 pre-social platform psychoeducational intervention while it was 3.9 ± 2.4 post-social platform psychoeducation with highly statistically significant differences ($P < 0.0001$). Regarding the total future anxiety, there was a decrease in the mean score of the total future anxiety post the social platform psychoeducation compared to pre-social platform psychoeducation with highly statistically significant differences ($P < 0.0001$).

Figure (4): Showed a decrease in the total future anxiety level among the studied mothers post the social platform psychoeducation. It was observed that (60%) of the studied mothers had moderate future anxiety levels during the COVID-19 outbreak pre the social platform psychoeducation, while only 30% had moderate future anxiety levels post the social platform psychoeducation.

Table (5): Revealed a moderate negative correlation was found between the studied mothers' knowledge and their educational level ($r = -0.563$, $P \text{ value} < 0.0001$). Also, there was a moderate negative correlation between the level of future anxiety and the residence of mothers ($r = -0.508$, $P \text{ value} < 0.0001$).

Table (6): Portrayed moderate negative correlation was found between the studied mothers knowledge and their practice and future anxiety post social-platform psycho- educational intervention ($r = -0.533$, $P \text{ value} < 0.014$; $r = -0.663$, $P \text{ value} < 0.016$ respectively).

Figure (5): Showed that all of the studied mothers (100%) reported that the content of the social-platform psychoeducation was enough and (97 %) of them were satisfied with social platform instructions. Concerning its effect on knowledge and practices (96%) of them stated that the social-platform psychoeducation improved their knowledge and practices. Also, 94% of the studied mothers reported that social-platform psychoeducation reduce their anxiety levels.

Demographic characteristics	NO.	%
-Age(years):		
20 < 30	184	46.0
30 - 35	140	35.0
35 ≥40	76	19.0
Mean and SD (26.4±2.3)		
-Educational level:		
Postgraduate	20	5.00
Bachelor's degree	144	36.00
Technical Institute	116	29.00
Secondary school diploma	120	30.00
occupation		
Housewives	280	70.00
Working	120	30.00
- Residence		
Urban	288	72.00
Rural	112	28.00

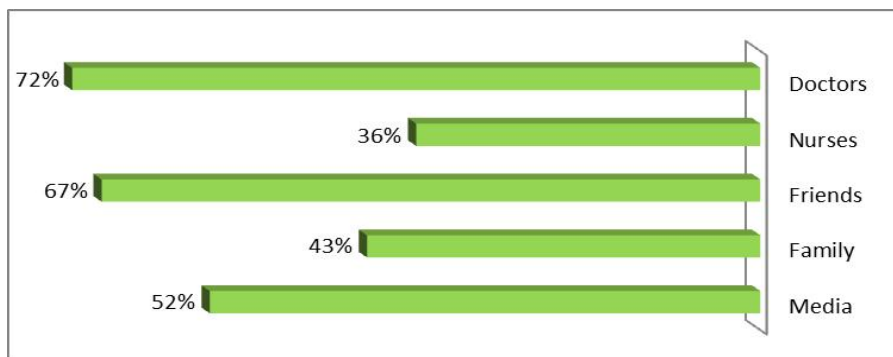


Figure (1): Percentage Distribution of the Studied Mothers about their Source of Knowledge regarding Covid 19

Table (2): Comparison of Mean Scores of Knowledge among the Studied mothers about Covid-19 and Pre/ Post Social Platform Psychoeducation (n=400)

Items	Pre social platform psychoeducationa	Post social platform psychoeducation	t-test	P-value
General knowledge about COVID-19	2.6 ± 0.8	4.8 ± 0.5	19.183	0.0001**
Signs & symptoms, methods of transmission, and complication	3.7 ± 2.3	9.2 ± 1.0	17.532	0.0001**
Preventive measures and treatment	3.0 ± 1.9	6.8 ± 0.4	16.627	0.0001**
Total knowledge scores	8.5 ± 3.5	19.8 ± 1.2	24.139	0.0001**

(*) statistically significant at $p \leq 0.05$

(**) highly statistical significance at $p < 0.001$

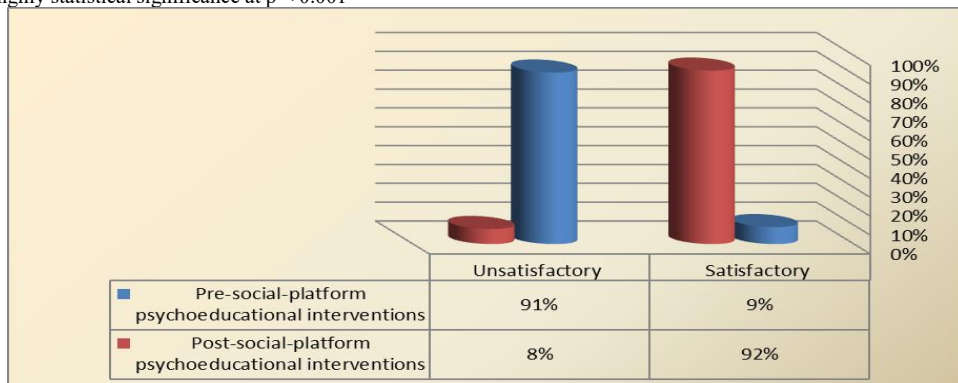
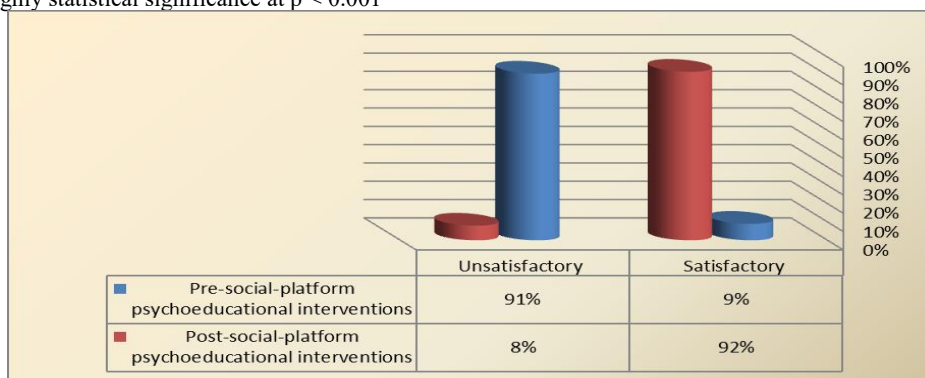


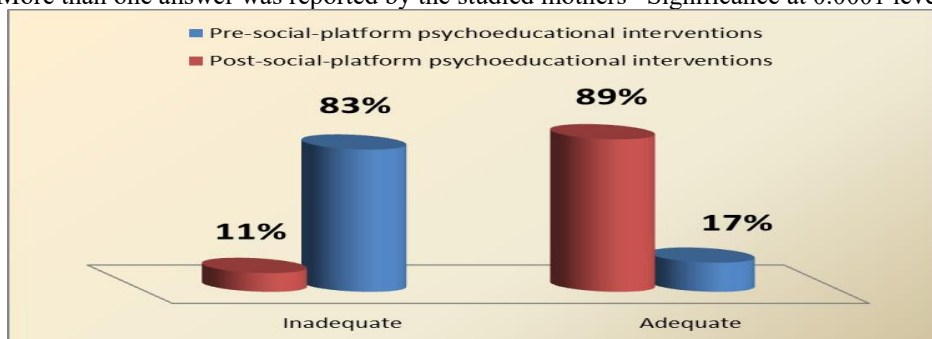
Figure (2): Percentage Distribution of the Total Mothers' Knowledge Level regarding COVID-19

Table (3): Percentage distribution of mothers' knowledge regarding the preventive measures about COVID-19 Pre/ Post Social Platform Psychoeducation(n=400)

Preventive measures	Pre social platform psychoeducation	Post social platform psychoeducation	t-test	P-value
Hand washing	140(35.0)	380 (95.0)	29.4	<0.001*
Wearing mask	60(15.0)	296(74.0)	39.3	<0.001*
Use disinfectant materials such as alcohol	32(8.0)	216(54.0)	48.8	<0.001*
Avoid shaking hands	68(17.0)	392(98.0)	37.6	<0.001*
Social distance	76(19.0)	376(94.0)	24.7	<0.001*
Put a tissue when coughing or sneezing on the mouth and nose	156(39.0)	372(93.0)	28.5	<0.001*

(*) statistically significant at $p \leq 0.05$ (**) highly statistical significance at $p < 0.001$ 

More than one answer was reported by the studied mothers *Significance at 0.0001 levels

**Figure (3):** Percentage of the Total Practice of the Studied Mothers regarding COVID -19 Pre & Post-Social Platform Psychoeducation (N= 400).**Table (4):** Comparison of Mean Scores of Future Anxiety among the Studied Mothers during Covid-19 Outbreak Pre/ Post Social Platform Psychoeducation (n=400)

Future Anxiety items	Pre social platform psychoeducation	Post social platform psychoeducation	t-test	P-value
Fear and worries about future	7.4 ± 2.5	4.0 ± 2.0	7.033	0.0001**
The despair of the future	10.7 ± 3.2	4.6 ± 2.3	11.012	0.0001**
Worry thinking about the future	9.6 ± 3.0	7.6 ± 1.4	3.499	0.001**
Health and death anxiety	6.6 ± 3.3	3.9 ± 2.4	6.763	0.0001**
Future anxiety related to the problem	6.2 ± 2.8	3.7 ± 2.4	6.473	0.0001**
Total future anxiety	40.03 ± 9.6	24.4 ± 9.3	8.672	0.0001**

(*) statistically significant at $p \leq 0.05$ (**) highly statistical significance at $p < 0.001$

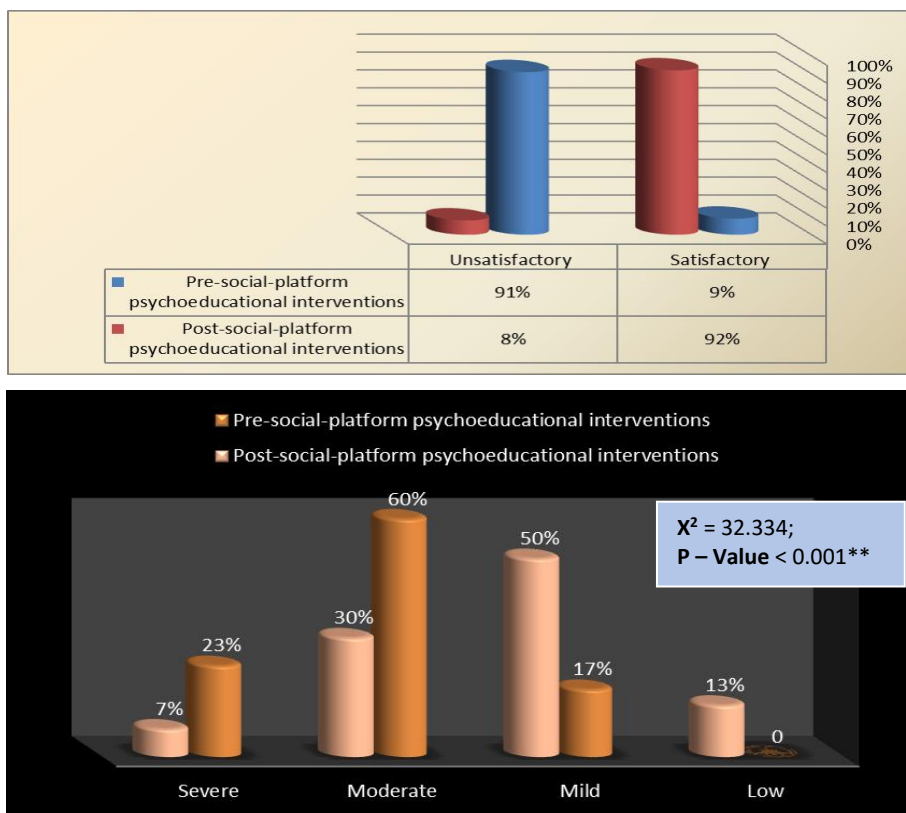


Figure (4): Percentage Distribution of Total Future Anxiety among the Studied Mothers Pre / Post Social Platform Psychoeducation during Covid-19 Outbreak (n=400)

Table (5): Correlation between Total Knowledge, Practice, and Future Anxiety during COVID -19 among the Studied Mothers and their Selected Sociodemographic data Pre Social Platform Psychoeducation (n= 400).

Items		Knowledge	Practice	Future anxiety
Mothers' age	R	-.133-	-.106-	.186
	P – value	.353	.452	.188
Mothers' educational level	R	-.563	.023	-.042-
	P – value	.0001**	.863	.772
Mothers' occupation	R	.074	-.332	-.367
	P – value	.608	.016*	.007**
Mothers' residence	R	.046	-.296	-.508
	P – value	.743	.033*	.0001**

** . Correlation is significant at the 0.01 level* . Correlation is significant at the 0.05 level

Table (6): Correlation between Total Knowledge, practice, and Future Anxiety during COVID-19 among the Studied Mothers Pre/ Post Social-Platform Psychoeducation (n= 52).

Items	Variables		Pre social platform psychoeducation	Post social platform psychoeducation
			Knowledge	Knowledge
Pre social platform psychoeducation	Practice	R	-0.100	0.013
		P – value	0.491	0.932
	Future anxiety	R	-0.092	0.157
		P – value	0.539	0.216
Post social platform psychoeducation	Practice	R	0.157	-0.533
		P – value	0.556	0.014*
	Future anxiety	R	0.843	-0.663
		P – value	0.017	0.016*

*. Correlation is significant at the 0.05 level

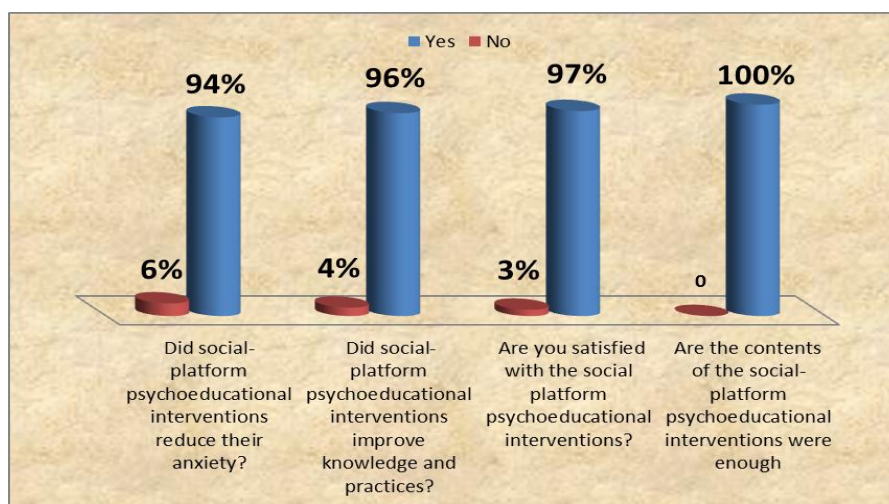


Figure (4): Percentage Distribution of the Studied Mothers regarding their satisfaction with Social-Platform Psychoeducation (n= 400)

Discussion:

COVID-19 is a global emergency health pandemic that has major consequences for women, including mental health issues (WHO, 2021; Xiang et al., 2020). Pandemics like these can cause psychosocial issues like worry, fear, stress, social isolation, misinformation, and misunderstanding about the disease on social media (Dong & Bouey, 2020). Digital care and the internet can efficiently carry out social-platform psychological therapies, and psychological interventions are clinically effective in several mental diseases (Irvine et al., 2020). The findings showed that psychological treatments delivered through social media platforms helped boost mothers' knowledge and practices regarding the Covid-19 epidemic. So, the study aimed to investigate the effect of the effect of social-platform psycho-educational regarding children's health on mothers' knowledge, practice, and anxiety during covid-19 outbreak.

According to the findings, the majority of the studied mothers were between the ages of 20 and 30, and their educational level was a bachelor's degree. Because they were not old enough and did not have adequate knowledge, this could be the cause of greater psychological disturbances such as anxiety among the studied mothers.

The result of the current study cleared that most of the studied mothers had unsatisfactory knowledge levels about covid-19 pre the social

platform psychoeducational interventions. From the researcher's point of view, this indicated the importance of introducing social platform psychoeducational interventions for mothers to improve their knowledge. Moreover, the present study finds regarding mothers' knowledge about COVID -19 that post social platform psychoeducational interventions, highly statistically significant improvements are observed in mothers' knowledge of all items of COVID-19. From the researcher's point of view, this could be due to providing the mothers with up-to-date and understandable information about covid-19 during the program. This finding is in line with that of (Matsuda & Kohno, 2016), who discovered that psychoeducation enhances participants' knowledge of the illness under study (Ekhtiari et al., 2017).

This finding supported Fan et al., (2020) "theory of KAP," which said that having the proper knowledge and practicing it leads to a shift in health behavior. Furthermore, a recent study by Rana et al., (2020) found that enough individual knowledge is linked to effective disease prevention, control, and promotion. Knowledge deficit is linked to poor health and maladaptive disease prevention behavior, according to a study by Ricardo et al., (2018).

The current result illustrates that the majority of mothers had less preventive measures practices scores about Covid-19 pre-social platform psychoeducational interventions, but there was a highly statistically significant improvement was observed in mothers'

knowledge post-social platform psychoeducational interventions. This finding shows the necessity for mothers of children to raise their awareness and understand the importance of good COVID - 19 practices to protect their children from virus infection.

Regarding the total future anxiety, there was a decrease in the mothers' mean score of the total future anxiety post the social platform psychoeducational interventions compared to pre-social platform psychoeducational interventions with highly statistically significant differences. According to the researchers' opinion, this could be because mothers are unfamiliar with the problem and are worried about complications for their children if they become sick. COVID-19-related psychological discomfort and concerns among mothers and pregnant women in Saudi Arabia were researched by **Abdulkarim et al., (2021)**, who found that mothers of children under the age of ten had a significant worry of their children catching COVID-19.

These findings could indicate that the coronavirus outbreak caused major stressors for mothers in all aspects of their daily lives, including their children's health, which was very exciting for them. Others were experiencing anxiety or fear of their children becoming infected, while their anxiety and worry decreased after receiving sufficient knowledge about COVID-19 through social platform psychoeducational interventions. This could be related to the stress-reduction effect of educational intervention and increased understanding of Covid-19. Providing mothers with online psychological treatments, such as Telehealth, has considerable positive benefits on their mental health, according to available scientific evidence from previous natural disasters and pandemics (**Galea et al., 2020& Lawlor et al., 2014**).

The current study results revealed that less than two-thirds of the studied mothers had a moderate level of future anxiety pre-social platform psychoeducational interventions. From the researchers' point of view, this could result from a high level of stress; mothers are not well-informed about the COVID-19 safety and precaution measures, the sudden change in their

children's style, and worries about them (**Xinhua 2020, Zhou et al., 2020**).

These results showed a decrease in the total future anxiety level among the studied mothers post the social platform psychoeducational interventions than pre- interventions. These findings could be attributed to mothers' concerns about their children becoming sick, the difficulty of controlling the epidemic, and a lack of medical facilities in the country. At home, mothers may experience emotional distress toward their children, particularly if they fall ill (**CDC, 2020**).

These results explained an absence of any definite therapy against COVID-19 and knowledge deficit that, causes increasing emotional disturbances levels, and also children may be infected by other children. These results were consistent with the study done by **Gao et al., (2020)** regarding generalized anxiety disorder, sleep quality, and depressive symptoms during the COVID-19 outbreak in China, and noticed that anxiety disorder affected depressive symptoms. The study findings are in the same line as **Ayed et al., (2020)** who conducted a study on "Effect of Instructional Guidelines on Mothers' Emotional Status Regarding Children Returning to School during Corona Virus Disease" and found that three-fifths of the mothers in pre instructional guideline's implementation was suffered from severe anxiety.

This study's findings are supported by a recent study by **Duplaga & Grysztar (2021)**, which indicated that the COVID-19 pandemic is not only a source of heightened mental symptoms but also of greater future anxiety. Furthermore, **Mo'ashi & Muhamed (2012)** found a significant level of future concern among students in a prior study about "Future anxiety of the people" conducted in Egypt. According to a survey done in Turkey by the Mental Health Association (MHA), over 61 percent of participants had heightened concern about their future (**MHA, 2020**).

Following the psychoeducational session, the degree of overall future worry decreased, according to the current study's findings. According to the researchers' opinion, this could be due to the favorable effect of the psychoeducational intervention, which resulted in an increase in knowledge and a decrease in stress

because they are now aware of the main components of F.A. and have other ways of dealing with such feelings. Participants also acquired relaxation techniques and a new way of dealing with stressors during anxious moments, and they discovered that embracing unknown life events is crucial to living with F.A. The mothers also grow more conscious of their future perspectives and select which of them they want to pursue.

The present study reveals that a moderate negative correlation was found between the studied mothers' knowledge and their educational level. Also, there was a moderate negative correlation between the level of future anxiety, occupation, and residence of mothers. Pre-social-platform psychoeducational interventions, the residence of the investigated mothers, particularly in rural locations are connected with high mean scores of their future worry. This could explain why rural and urban areas have different cultures, values, and beliefs, and mothers in these areas are more stressed due to a lack of medical protective supplies, lack of awareness from social media, and difficulty getting to a health center or hospital in urban areas when their children show signs of infection. In addition, a high level of worry in moms was linked to their work. This result could be due to working moms leaving their young children unattended for long periods while at work, increasing their anxiety for their children who are left alone.

The present study reveals that a moderate negative correlation was found between the studied mothers' knowledge and their practice and future anxiety post-social-platform psycho-educational intervention. From the researchers' point of view, it reflected that knowledge deficit leads to inadequate practices which increases future anxiety about the unknown.

The present study reveals that all of the studied mothers reported that the content of the social-platform psychoeducational interventions was enough and most of them were satisfied with social platform instructions and stated that the social-platform psychoeducational interventions improved their knowledge and practices and reduce their anxiety level. This result reflects the benefit of administering the instructional guidelines, which met the mothers' needs and

provide them with sufficient knowledge to cope with this disease. Also, reflected the success of the study aim.

Both with and without therapist assistance, internet-based/or online delivery of psychological psychotherapy for mothers has shown promise in treating and lowering anxiety (Jolstedt et al., 2018). Yoga, meditation-based program, online chatting with friends, and watching online psychology courses were also linked to a lower risk of anxiety (Fenfes et al., 2020).

Similarly, studies by Jolstedt et al., (2018), Melnyk et al., (2015) found that therapist-guided internet therapy, cognitive-behavioral therapy-based skill training programs, relaxation methods, art-based programs, support services, clinician-led mental health, and psychosocial services effectively reduce mental health issues and anxiety among mothers.

Conclusion:

Depending on the results of the current study, the study concluded that social-platform psychoeducational regarding their children's health during Covid-19 Outbreak has a positive effect on improving mothers' knowledge, practice, and reducing their anxiety level. A highly statistical significant correlation was found between mothers' knowledge, practice about COVID -19 and their level of future anxiety regarding their children's health during COVID -19 pre and post-social-platform psychoeducational.

Recommendations:

The following recommendations were suggested based on the results of the present study:

- 1- Provide mothers with a well-planned health education program to improve their knowledge and practice regarding Covid -19 for educated and non-educated mothers.
- 2- Psychological support should be carried out through the media to help mothers become more resilient during the COVID-19 epidemic and reinforce possible interventions that are essential to support and help in psychological adjustment.
- 3- Brochures and booklets with sufficient information about COVID-19 and its

prevention strategies should be printed and distributed to all mothers and caregivers of young children in clinics and schools.

Limitations of the study:

The current study had two limitations, the first was the inability to conduct face-to-face interviews with the mothers. Second, during the coronavirus pandemic epidemic, the study's online-based questionnaire method was employed to prevent infection spread and school lockdown. As a result, there was sample bias because the study was done online and limited to only educated moms with internet access, which did not represent or reflect the entire mother population.

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