The Effect of Distance Learning on Mothers' Quality of Life during COVID-19 Pandemic

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Abstract:

Background: Considering the COVID-19 emergency, distant learning was selected as the preferred mode of teaching. Practically everywhere on the globe has attempted it. Using internet-based digital resources to enhance learning is the process of distance learning. **Aim of the study:** Was to assess the effect of Distance Learning on Mothers' Quality of Life during COVID-19 Pandemic. **Setting:** The study was conducted at 50% of Governmental Benha Preparatory Schools. The total number of preparatory schools in Benha city is about 16 schools, 8 schools were selected to be included in the study and were chosen by simple random technique. **Sample:** The snowball sampling technique was used and included 270 mothers. **Tools:** Two tools were utilized. **Too**l I: Pre-designed questionnaire to assess the socio-demographic characteristics, family characteristics of the mothers and mothers' knowledge regarding distance learning. **Tool II**: The World Health Organization Quality of Life brief version questionnaire. **Results:** 48.5% of studied mothers aged from 35 to less than 45 years with mean age 34.68±7.65years, 48.5% of them had university education. 39.6% of them had poor total knowledge regarding distance learning.60.7% of studied mothers had low total quality of life and 22.3% of them had moderate total quality of life and only 17% of them had high total quality of life regarding to distance learning. **Conclusion:** A highly statistically significant relations between total quality of life and socio-demographic characteristics of studied mothers regarding age, educational level, residence, occupation, and marital status ($p< 0.001$). A highly statistically significant relations between total quality of life score regarding distance learning and family characteristics of mothers as number of children, children educational level and times of electronic learning classes ($p<0.001$). Furthermore, there were statistically positive correlation between studied mothers' total level of knowledge and their total quality of life score ($p<0.001$). **Recommendation:** Creating counseling programs in facing these crises for families, training parents on modern education strategies, designing guidance programs and working on them for all groups of society.

Key words: **Distance learning, Mothers, Quality of life** & **COVID-19 pandemic**

Introduction

The World Health Organization (WHO) encouraged all countries to take immediate action to halt the COVID-19 spread, since it was proven that the disease was a worldwide pandemic. In December 2019 in Wuhan, China, the infectious disease Covid-19 was first discovered. The respiratory tract is attacked by COVID-19, which results in respiratory diseases such pneumonia **(WHO, 2020).**

Almost every aspect of life was affected by the COVID-19 pandemic: businesses, higher education institutions, shopping centers, air, land, and sea transportation hubs, and social, cultural, and educational domains were all disrupted. Due to this pandemic situation, several social and economic difficulties have emerged that need to be immediately handled, such as enforcing social seclusion, maintaining meticulous personal hygiene, and using masks and gloves. Following this event, numerous nations immediately implemented several steps to reduce disease transmission. One of the actions taken in accordance with the health recommendations is the closing of schools **(UNCIF, 2021).**

Students and their mothers are required to remain at home for the duration of the COVID-19 pandemic. Online learning has been selected as the learning alternative during the COVID-19 emergency **(Bhamani et al., 2020).** As a teaching method, distance learning is characterized by the teacher and student being in separate locations and not always being bound by a set schedule. Put differently, learners acquire knowledge without physically attending courses or school. Email, audio, video, computers, and the internet are just a few examples of the many technologies available. The most recent iteration of remote learning is online education, which disseminates curriculum materials over the Internet and a variety of digital devices (laptops, cellphones, tablets, etc.) **(Anderson, 2020).**

Distance learning has replaced in-person classroom training in most nations. There were detrimental effects on both the wellbeing of the children and the mothers because of the closure of schools and the dearth of childcare options. mothers were forced to assume more responsibility for their children's upbringing and home education, as well as to assist them with homework and online curriculum during distance learning. More specifically, research has demonstrated that parental adaptability determines how detrimental the pandemic is. Although some parents who are more adaptable view the pandemic as a chance to spend more time with their families and to settle outstanding disputes, others regard it as a threat to the health and well-being of the family members **(Agaton& Cueto, 2021).**

Mothers were obliged to stay at home due to the pandemic epidemic, which required them to adjust to new routines and assume new duties. The primary duty was to involve their children in distance learning (**Abuhammad, 2020).** Mothers also have an added responsibility to educate children at home, where they must make up for the absence of in-person interaction they experience at school and make sure they receive a top-notch education. In addition to serving as children's tutors and support systems when needed, mothers also act as temporary instructors. When it comes to distance learning, mothers play four responsibilities at home: director, instructor, facilitator, and motivator. Mothers act as their child's teachers at home by scheduling and directing the learning activities, monitoring the progress on a regular basis, and providing a welcoming environment for learning. In their capacity as facilitators, mothers give kids the tools and resources they need to participate in distance learning. And finally, as directors' parents, can direct children's online learning from home **(Crehan et al., 2021).**

Mothers' guidance for at-home distance learning has encountered several challenges, including mothers lack of comprehension of the subject matter, growing student interest and motivation, time constraints imposed by work obligations, mothers lack of patience when teaching students at home, a lack of facilities, and challenges with using internet connection services. This increases mothers' demand and saturation for the institution to hold in-person sessions at the school as soon as possible **(Sari & Maningtyas, 2020).**

Significance of the study:

More than 300 million students are being disrupted by the COVID-19 virus globally, a degree of disruption that schools and institutions have not seen in decades. It is important to take into account each student's achievement and to help make it a priority, even though it is a depressing continuation of the educational system. Research indicates a strong relationship between student achievement and mothers' involvement when mothers actively participate in their child's online education. When a child falls behind or loses confidence in their skills, mothers frequently feel alone and don't know where to turn for support, which has an impact on their quality of life **(Biltagy, 2021).**

Aim of the study:

This study aims to assess the effect of distance learning on mothers' quality of life during covid-19 pandemic.

Research question:

- What is the mother's knowledge regarding distance- learning?

- Does distance- learning during covid-19 pandemic affect the mother's quality of life?
- Is there a relation between studied mothers' total quality of life and their socio-demographic characteristics?
- Is there a relation between studied mothers' knowledge and their total quality of life regarding distance learning?

Subject and Methods

Research design: Descriptive research design was used in this study.

Setting:

The study was conducted at 50% of Governmental Benha Preparatory Schools. The total number of preparatory schools in Benha city is about 16 schools, 8 schools were selected to be included in the study. The selected schools were chosen by simple random technique. which are named; Zaid bin Haritha, Anas bin Malik, Omar bin Khattab, Saad Zaghloul, El-Emam Metwally Sharawy, Nasser, Abdul Rahman bin Auf, and El- Sayyida Aisha preparatory schools.

Sampling

Sample type: The snowball sampling technique was used in this study.

Sample size: A total of 270 responses were received from studied mothers under the following inclusion criteria: mothers any age, at least moderate education, and have a smart phone with internet access and have one or more children undergoing distance learning.

Tools of the study: Two tools were used for data collection.

Tool I: part I Pre-designed questionnaire **to** assess the socio-demographic characteristics of the selected mothers. A total of 7 questions including (age, sex, educational level, residence, family monthly income, occupation, marital status). Family characteristics includes 3 questions (number of children, children educational level (primary school, secondary school, higher education), and the times of learning classes (morning, afternoon or both morning, and afternoon).

Part II Mothers knowledge about distance learning which included 5 closed ended questions (multiple choice type) covering items of (meaning, purpose, advantage, disadvantage, and obstacles of distance learning).

Scoring system: Each response received one of the following scores: (2) for a correct and complete answer, (1) for a correct and incomplete answer, and (0) for don't know. Total knowledge score = 10 degrees. Three categories were used to classify the total knowledge score: Good if the total score ≥75% (≥7 degree), average if the score 50- 75% (5-7 degree) and poor knowledge score is less than 50% (< 5 score).

Tool II: The measurement of quality of life among mothers:

Was using the abbreviated form of the World Health Organization Quality of Life (WHOQOL-BREF). The questions were taken from the standardized Arabic version of the full World Health Organization Quality of Life questionnaire. To enable the measurement of the participants' perception of their quality of life during the COVID-19 lockdown, it was amended by adding the phrase "in the presence of COVID-19 lockdown" to every question.

The WHOQOL-BREF is a 26-item questionnaire with items covering four domains: Social relationships domain (3 items), psychological health domain (6 items), physical health domain (7 items), and environmental health domain (8 items). QoL and general health items are also included. Items on daily activities, functional capacity, energy, exhaustion, pain, discomfort, sleep, rest, and job capacity were all included in the physical health domain. Body image, negative and positive emotions, self-esteem, personal beliefs, spirituality, thinking, learning, and concentration were all included in the psychological domain. Personal interactions, social support, and sexual activities are all covered in the social relationships domain. The subject of environmental health domain encompasses concerns pertaining to financial resources, physical safety, social services,

health services, living environment, chances for obtaining fresh knowledge, engagement in leisure activities, physical environment, and transportation. Every question the mothers answered received a point value between one and five. Almost all questions have a point system where 1 represents the worst possible health status and 5 represents the highest possible health status. The WHOQOL-BREF assigns a score of 6-x (x=any score for Q3, Q4, or Q26) to each individual item.

Subsequently, compute the average answer points for every domain (total answer points divided by total number of questions) and multiply the result by 4. This will get the domain score for each domain.

Finally, the 4 domain scores are each converted into a scale from 0 to 100.

Validity: In order to ensure relevance, applicability, and comprehensiveness, a panel of five professionals in the field of community health nursing rewrote the instruments, which were originally written in Arabic.

Tool's reliability:

When comparing the WHOQOL-BREF and its subscales for both the examined groups and the whole sample, Cronbach's Alpha indicated good reliability. The values for knowledge and Quality of Life are 0.760 and 0.79, respectively.

Pilot study:

Before beginning data collecting, it was completed. To assess the tools' applicability and clarity, it comprised 27 mothers, representing 10% of the study sample. Additionally, it was helpful in estimating the amount of time needed to complete the questionnaire; 10 to 15 minutes were needed to complete the page. No modification was done so that the pilot study was included in the study sample.

Ethical considerations:

The study complied with standard ethical guidelines for clinical research and posed no risk to the study's participants. The rights of all mothers were upheld, and each mother was made aware of the nature of the study's anticipated results. They received guarantees that all information would be tested in confidence, that it would only be used for research purposes and to their advantage, and that each study participant would have ample time to complete the study. Additionally, they were made aware of their freedom to withdraw at any moment and without giving a reason.

Field work:

- After an ethical permission to carry out the study was obtained from both Faculty of Nursing Benha University and the directors of selected schools after explanation of its purpose and the tool of the study. Then, the permission to join the platform of selected schools on social media, an online interview zoom meeting was conducted for some mothers eligible for the study to explain the purpose of the study, assure confidentiality and to obtain informed oral consent. The link of the questionnaire was distributed through social media platform https://docs.google.com/forms/d/1q3Gxt3V11QTjqTpXHvftwYXt5kGq3NybVYLbY5_X5ko/edit?usp=drive_web-

Data collection extended over a period of two months from beginning of May to the end of June 2020 in Egypt during the COVID-19 lockdown. All members of the research team of this study shared the online survey link through different types of social media (Twitter, Facebook, and WhatsApp) to different groups of mothers, using the snowball sampling technique. Inclusion criteria were consent to the study, had a smart phone, and have children undergo the distance- learning method.

Statistical Design:

The Statistical Package for Social Science (SPSS) version 13 was used on an IBM-compatible computer for data entry, presentation, and statistical analysis. To determine the difference between two groups of the same sample of normally distributed variables, quantitative data were expressed as means and standard deviations and subjected to paired student t-test analysis. The McNamara

test was used to assess the difference between two or more groups within the same sample. Qualitative data were expressed as numbers and percentages (No & %). The following noteworthy outcomes were considered: Significant $P \leq 0.05$, Not significant $P > 0.05$, and $P \leq 0.001$ is a highly significant.

Results:

Table (1): Shows that 48.5% of studied mothers aged from 35 to less than 45 years with mean age 34.68±7.65years, 48.5% of them had university education, 69.6% were from rural areas. 67.8% of studied mothers were work, 61.9% of them were married, while 62.9% of them their monthly income was not enough.

Table (2): Illustrates that; 36.3% of studied mothers had three children. 73.3% of them had children in preparatory educational level. While 44.4% of studied mothers used distance – learning in afternoon for their children.

Table (3): Clarifies that; 39.3% of studied mothers didn't know the purpose of distance learning, 53.7% of them had correct and incomplete answer regarding meaning of distance learning, while 15.9% of them had correct and complete answer regarding advantage & disadvantage of distance learning.

Figure (1): Illustrates that; 39.6% of studied mothers had poor total knowledge regarding distance learning and 37.3% of them had average total knowledge, while 23% of them had good total knowledge regarding distance learning.

Table (4): Clarifies that; 23.7% of studied mothers had extremely high degree quality of life regarding ability to perform daily living activities. 35.9 % of them had moderate degree of satisfaction with sleep. 37.8% of studied mothers had moderate degree quality of life regarding need any medical treatment to function in daily life, while 35.6% of them had low degree of enough energy for everyday life.

Table (5): Clarifies that; 28.1% of studied mothers had extremely high degree quality of life regarding meaningful do feel the life. 39.6% of them had high degree quality of life regarding have negative feelings such as blue mood, despair, anxiety, depression. 30.4% of them had moderate quality of life regarding satisfaction with self, while 27.4% of them had low degree quality of life regarding able to accept bodily appearance.

Table (6): Explains that 20% of studied mothers had extremely high degree quality of life regarding support get from friends. 35.9% of studied mothers had high degree quality of life regarding personal relationships, while 25.9% of them had extremely low degree of satisfaction with sex life.

Table (7): Explains that 23.7% of studied mothers had extremely high degree quality of life regarding health of the physical environment. 319% of them had a high degree of quality of life regarding satisfaction with access to health services. 48.9% of them had moderate quality of life regarding safe feel in daily life, also 30% of them had low degree quality of life regarding satisfaction with transport, while more than one quarter of studied mothers had extremely low degree regarding presence of enough money to meet needs.

Figure (2): Clarifies that 60.7% of studied mothers had low total quality of life and 22.3% of them had moderate total quality of life and only 17% of them had high total quality of life regarding to distance learning.

Table (8): Reveals that a highly statistically significant relations between total quality of life and their socio-demographic characteristics of studied mothers as age, educational level, residence, occupation, and marital status ($p< 0.001$).

Table (9): Shows a highly statistically significant relations between total quality of life score regarding distance learning and their family characteristics as number of children, children educational level and times of distance learning classes ($p< 0.001$).

Table (10): Reveals that there were statistically significant relations between total studied mothers' knowledge and their socio-demographic characteristics regarding age, educational level, residence, and occupation

(p<0.001), while there were no statistically significant relations between total studied mothers' knowledge and their socio-demographic characteristics regarding marital status (p>0.005).

Table (11): Shows a highly statistically significant relations between total knowledge score regarding distance learning and family characteristics regarding children educational level, and there were statistically significant relations between total quality of life score regarding distance learning and family characteristics regarding number of children, and times of distance learning classes (p< 0.001).

Table (12): Shows a highly statistically significant relations between total quality of life score and total knowledge scores regarding distance learning (p< 0.001).

Table (1): Distribution of studied mothers regarding their socio-demographic characteristics (n= 270)

Socio-demographic characteristics	No.	%
Age in years		
<25 years old	7	2.6
25-<35	100	37.0
35-<45	131	48.5
≥45 years old	32	11.9
Mean ±SD 34.68±7.65		
Educational qualification		
Secondary education	109	40.4
University education	131	48.5
Postgraduate studies	30	11.1
Residence		
Rural	188	69.6
Urban	82	30.4
Occupation		
Work	183	67.8
Not work	87	32.2
Marital status		
Married	167	61.9
Widow	79	29.3
Divorced	24	8.9
Monthly income		
Enough	100	37.3
Not enough	170	62.9

Table (2): Distribution of studied mothers regarding their family characteristics (n= 270)

Family characteristics	Frequency	%
Number of children		
1.00	51	18.9
2.00	68	25.1
3.00	98	36.3
4.00	18	6.7
5.00	35	13.0
Children educational level		
Primary level	7	2.5
Preparatory level	198	73.3
Secondary	21	7.8
University	44	16.3
Times of distance learning classes		
Morning	82	30.4
Afternoon	120	44.4
Morning and afternoon	68	25.2

Table (3): Distribution of studied mothers' knowledge regarding distance learning((n= 270)

Knowledge	Don't know		Correct & incomplete answer		Correct& complete answer	
	No.	%	No.	%	No.	%
The meaning of distance learning	75	27.8	145	53.7	50	18.5
The purpose of distance learning	106	39.3	114	42.2	50	18.5
The advantage of distance learning	86	31.9	141	52.2	43	15.9
The disadvantage of distance learning	105	38.9	122	45.2	43	15.9
The obstacles of distance learning	99	36.7	141	52.2	30	11.1

Figure (1): Percentage distribution of studied mothers' total knowledge regarding distance learning (n= 270)

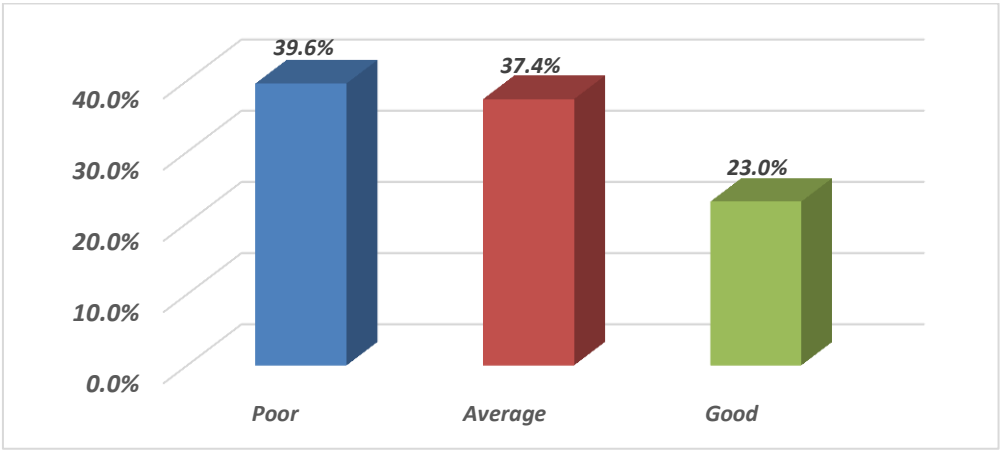

Table (4): Distribution of quality of life regarding distance learning for the studied mothers (physical health domain) (n= 270).

Quality of life variables (Physical health domain)	Extremely high degree		High degree		Moderately		Low degree		Extremely low degree	
	No	%	No	%	No	%	No	%	No	%
How much do you think that physical discomfort keeps you from completing tasks?	26	9.6%	54	20.0%	59	21.9%	73	27.0%	58	21.5%
How often does your ability to carry out everyday activities require medical attention?	57	21.1%	63	23.3%	102	37.8%	36	13.3%	12	4.5%
Do you have enough energy for everyday life?	48	17.8%	55	20.4%	1	0.4%	96	35.6%	70	25.9%
How well are you able to get around?	26	9.6%	53	19.6%	58	21.5%	70	25.9%	63	23.4%
How satisfied are you with sleep?	20	7.5%	81	30.0%	97	35.9%	53	19.6%	19	7.0%
What level of satisfaction do you have with the capacity to carry out everyday activities?	64	23.7%	61	22.6%	36	13.3%	81	30.0%	28	10.4%
To what extent do you feel satisfied with the work ability?	30	11.1%	64	23.7%	76	28.1%	83	30.7%	17	6.4%

Table (5): Distribution of the quality of life regarding distance learning for the studied mothers (psychological health domain) (n= 270).

Quality of life variables (Psychological health domain)	Extremely high degree		High degree		Moderately		Low degree		Extremely low degree	
	No	%	No	%	No	%	No	%	No	%
How much do you enjoy life?	38	14.1%	87	32.2%	72	26.7%	30	11.1%	43	15.9%
What degree of significance do you think that life has?	76	28.1%	67	24.8%	74	27.5%	10	3.7%	43	15.9%
How well are you able to concentrate?	45	16.7%	84	31.1%	48	17.8%	48	17.8%	45	16.7%
Can you accept how you look physically?	68	25.2%	79	29.3%	1	0.4%	48	17.8%	74	27.4%
How satisfied are you with yourself?	30	11.1%	53	19.6%	82	30.4%	74	27.4%	31	11.5%
What is the frequency of the negative emotions, such depression, anxiety, hopelessness, and blue mood?	20	7.5%	107	39.6%	39	14.4%	91	33.7%	13	4.8%

Table (6): Distribution of quality of life regarding distance learning for the studied mothers (social relation domain) (n= 270).

Quality of life variables (Social relation domain)	Extremely high degree		High degree		Moderately		Low degree		Extremely low degree	
	No	%	No	%	No	%	No	%	No	%
How satisfied are you with the personal relationships?	36	13.3%	97	35.9%	43	15.9%	53	19.6%	41	15.3%
How satisfied are you with the sex life?	49	18.1%	75	27.8%	53	19.6%	70	25.9%	23	8.6%
How satisfied are you with the support you get from friends?	54	20.0%	77	28.5%	61	22.6%	64	23.7%	14	5.2%

Table (7): Distribution of quality of life regarding distance learning for the studied mothers (environmental domain) (n= 270).

Quality of life variables (Environmental domain)	Extremely high degree		High degree		Moderately		Low degree		Extremely low degree	
	No	%	No	%	No	%	No	%	No	%
How safe do you feel in the daily life?	3	1.1%	51	18.9%	132	48.9%	72	26.7%	12	4.4%
How healthy is your physical environment?	64	23.7%	43	15.9%	9	3.3%	36	13.4%	118	43.7%
Have you enough money to meet needs?	45	16.7%	73	27.0%	8	3.0%	67	24.8%	77	28.5%
How available to you is the information that you need in day-to-day life?	57	21.1%	82	30.4%	26	9.6%	57	21.1%	48	17.8%
To what extent do you could engage in recreational activities?	7	2.6%	44	16.3%	119	44.1%	79	29.3%	21	7.8%
How satisfied are you with the conditions of the living place?	55	20.4%	73	27.0%	73	27.0%	58	21.5%	11	4.1%
How satisfied are you with the access to health services?	42	15.6%	86	31.9%	41	15.2%	72	26.7%	29	10.7%
How satisfied are you with the transport?	40	14.8%	67	24.8%	66	24.5%	81	30.0%	16	5.9%

Figure (2): Percentage distribution of studied mothers' total quality of life score regarding distance learning (n=270).

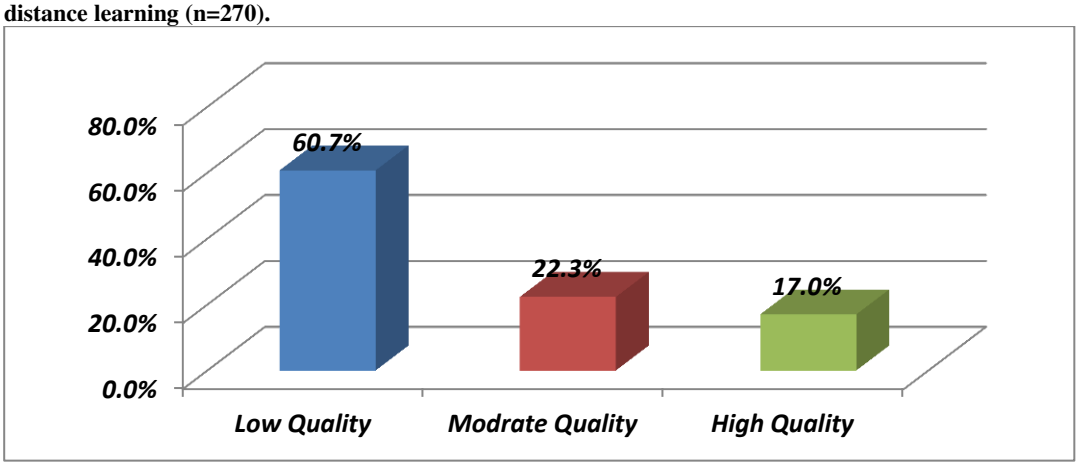

Table (8): Relation between studied mothers' total quality of life score regarding distance learning and their socio-demographic characteristics (n=270)

Socio-demographic characteristics	Total quality of life score						Chi square	P value
	Low		Moderate		High			
	No	%	No	%	No	%		
Age in years							28.20	<0.001**
<25 years old	5	3.0%	2	3.3%	0	0.0%		
25-<35	71	43.3%	12	20.0%	17	37.0%		
35-<45	67	40.9%	45	75.0%	19	41.3%		
≥45 years old	21	12.8%	1	1.7%	10	21.7%		
Educational level							44.30	<0.001**
Secondary education	45	27.4%	38	63.3%	26	56.1%		
University education	91	55.5%	20	33.3%	20	43.5%		
Postgraduate studies	28	17.1%	2	3.3%	0	0.0%		
Residence							171.73	<0.001**
Rural	158	96.3%	30	50.0%	0	0.0%		
Urban	6	3.7%	30	50.0%	46	100.0%		
Occupation							154.32	<0.001**
Work	153	93.3%	30	50.0%	0	0.0%		
Not work	11	6.7%	30	50.0%	46	100.0%		
Marital status							107.63	<0.001**
Married	61	37.2%	60	100.0%	46	100.0%		
Widow	79	48.2%	0	0.0%	0	0.0%		
Divorced	24	14.6%	0	0.0%	0	0.0%		

**** Highly statistically significance p<0.001**

Table (9): Relation between studied mothers' total quality of life score regarding distance learning and their family characteristics (n=270).

Family characteristics	Total quality of life score						Chi square	P value
	Low		Moderate		High			
	No	%	No	%	No	%		
Number of children							216.69	<0.001**
1.00	0	0.0%	13	21.7%	38	82.6%		
2.00	28	17.1%	32	53.3%	8	17.4%		
3.00	83	50.6%	15	25.0%	0	0.0%		
4.00	18	11.0%	0	0.0%	0	0.0%		
5.00	35	21.3%	0	0.0%	0	0.0%		
Children educational level							232.86	<0.001**
Primary level	0	0.0%	4	6.7%	3	6.5%		
Preparatory level	164	100.0%	34	56.7%	0	0.0%		
Secondary	0	0.0%	14	23.3%	7	15.2%		
University	0	0.0%	8	13.3%	36	78.3%		
Times of distance learning							188.40	<0.001**
Morning	6	3.7%	30	50.0%	46	100.0%		
Afternoon	90	54.9%	30	50.0%	0	0.0%		
Morning and afternoon	68	41.5%	0	0.0%	0	0.0%		

**** Highly statistically significance p<0.001**

Table (10): Relation between studied mothers total knowledge score regarding distance learning and their socio-demographic characteristics. (n=270)

Socio-demographic characteristics	Total knowledge						Chi square	P value
	Good		Average		Poor			
	No	%	No	%	No	%		
Age in years							16.16	<0.05*
<25 years old	2	1.9%	5	5.0%	0	0.0%		
25-<35	40	37.4%	28	27.7%	32	51.6%		
35-<45	54	50.5%	50	49.5%	27	43.5%		
≥45 years old	11	10.3%	18	17.8%	3	4.8%		
Educational level							10.70	<0.05*
Secondary education	35	32.8%	46	44.8%	28	44.6%		
University education	61	57.0%	39	38.6%	31	50.0%		
Postgraduate studies	11	10.3%	16	15.8%	3	4.8%		
Residence							14.86	<0.05*
Rural	75	70.1%	81	80.2%	32	51.6%		
Urban	32	29.9%	20	19.8%	30	48.4%		
Occupation							10.26	<0.05*
Work	75	70.1%	76	75.2%	32	51.6%		
Not work	32	29.9%	25	24.8%	30	48.4%		
Marital status							4.94	>0.05
Married	59	55.1%	64	63.4%	44	71.0%		
Widow	37	34.6%	27	26.7%	15	24.2%		
Divorced	11	10.3%	10	9.9%	3	4.8%		

*** Statistically significance p<0.005**
No statistically significance p>0.005

Table (11): Relation between studied mothers total knowledge score regarding distance learning and their family characteristics (n=270).

Family characteristics	Total knowledge						Chi square	P value
	Good		Average		Poor			
	No	%	No	%	No	%		
Number of children							14.63	<0.05*
1.00	21	19.6%	12	11.9%	18	29.0%		
2.00	26	24.3%	26	25.7%	16	25.8%		
3.00	38	35.5%	42	41.6%	18	29.0%		
4.00	5	4.7%	6	5.9%	7	11.3%		
5.00	17	15.9%	15	14.9%	3	4.8%		
Children educational level							55.28	<0.001**
Primary level	7	6.5%	0	0.0%	0	0.0%		
Preparatory level	77	72.0%	89	88.1%	32	51.6%		
Secondary	4	3.7%	1	1.0%	16	25.8%		
University	19	17.8%	11	10.9%	14	22.6%		
Times of E learning classes							15.63	<0.05*
Morning	32	29.9%	20	19.8%	30	48.4%		
Afternoon	49	45.8%	53	52.5%	18	29.0%		
Morning and afternoon	26	24.3%	28	27.7%	14	22.6%		

**** Highly statistically significance p<0.001**
*** Statistically significance p<0.005**

Table (12): Correlation between studied mothers' total level of knowledge score and their total quality of life score (n=270).

Variables	Total quality of life score	
	R	P value
Total knowledge score	0.326	<0.001**

**** Highly statistically significance p<0.001**

Discussion:

Children and their moms had to stay at home full-time during the COVID-19 pandemic. In light of the COVID-19 emergency, distant learning was selected as the preferred mode of instruction. Nearly every country in the world has used distance learning. While in-person interactions between professors and students can cause boredom and stress in young learners, online learning uses internet-based digital media to facilitate learning. Reducing children's boredom at home is a skill that parents, particularly mothers, need to possess. Women must consider the needs of their children **(Sari & Maningtyas, 2020; Skar et al., 2021).**

Regarding the age of the studied mothers, the current study revealed that about half of the studied mothers their age ranged between 35 to less than 45 years old with mean 34.68±7.65 years old. This finding was in same line with study done by **Bhamani et al., (2020),** entitled "Home learning in times of COVID: Experiences of parents, N= 19, Pakistan" and showed that more than half of the studied sample their age ranged between 35 to less than 45 years old.

Regarding level of education, the current study revealed that about half of the studied mothers had university education. This result agreed with study by **Sari & Maningtyas, (2020)** entitled " Parents' involvement in distance learning during the covid-19 pandemic", N=39, Negeri , and revealed that more than half of the studied sample had university education. On other hand, this finding disagreed with study by **Kolak et al., (2021),** entitled " "When the parent becomes the teacher-attitudes on distance learning in the time of Corona-teaching from parents' perspective, in Croatia", N=10545, revealed that half of the mothers who were the subjects of the research had completed secondary school. This may be the result of mothers' educational attainment having an impact on the continuation of their children's schooling. The moms' educational attainment will have an impact on the mindset and educational orientation that they impart to their children. Mothers who have greater levels of education also tend to have more flexible views on education and parenting.

Concerning the family characteristics of studied mothers, the present study showed that more than one third of the studied students had other 3 children. This result agreed with **Kolak et al., (2021)**, who showed that one third of the studied sample had 3 children. According to the researchers, mothers who have more than three children find it difficult to watch their kids while they learn, and that lack of time is a barrier to their involvement in online learning accompaniment. Parental dissatisfaction with innovative behavior learning may be negatively impacted by large family sizes.

Concerning knowledge of studied mothers regarding distance learning, the current study clarifies that slightly less than two fifths of studied mothers didn't know the purpose of distance learning. More than half of them had correct and incomplete answers regarding the meaning of distance learning, while less than fifth of them had correct and complete answer regarding advantage & disadvantage of distance learning. The previous results was not agreed with **Heba & Sultan, (2020),** who conducted a study of "Parents' Views of their Children's online Learning in The UAE Context during the COVID-19 Pandemic", N= 122, UAE reported that 78% of participants know the purpose of distance learning and The majority of parents (46%) felt that online learning gave them a better understanding of their children's strengths and weaknesses (54%), that it gave them a chance to address their children's educational needs (55%), and that it gave them a deeper understanding of which domain their children would be best suited for in the future (38%).

These findings showed that the most common misperception among mothers regarding distant education is that the duties of educational establishments have resulted in their engagement in their children's education, and that their level of preparedness to become at-home teachers is at its lowest.

Concerning the physical domain of the quality of life, the present study revealed that a high percentage of the studied mothers were not satisfied regarding ability to perform the activities of their daily living, and slightly one third of them moderately satisfied with sleep. This result may be due to lockdown and fear of infection. This results in same line with study by **Said et al., (2021)** who conducted study about "Mothers' Accounts of Attending to Educational and Everyday Needs of Their Children at Home during COVID-19", Emirates, and reported that most of studied sample did not satisfy regarding ability to perform the activities of daily living and report that their sleep has been affected. This might be due to It's very difficult for all mothers that cover everything due to many responsibilities and activities of daily living that have so, make the time of day not enough which disturb the time of sleep.

Concerning the psychological domain of the quality of life, the current study revealed that two fifth of studied mothers had negative feelings such as hopelessness, anxiety, and depression. This might be due to distance learning having created a burden to mothers, also more than two thirds of parents were working and needed to take care of their children while working from home. The additional load on mothers is to take care of their children's education during distance learning as mothers play a major role in education during the lockdown.

Concerning the environmental domain of the quality of life, the present study demonstrated that approximately two fifths of studied mothers had moderate quality of life regarding engage in recreational activities. This result matched with study by **Hamaidi et al., (2021),** entitled "Parents' perceptions of their children's experiences with distance learning during the COVID-19 pandemic, N= 470, Jordan" and reported that most of the studied sample had medium degree of perception found indicates the satisfaction level perceived by parents toward recreational activities. This might be due to lack of time and more responsibilities at home, also due to staying at home to avoid exposure to infection.

Also, the current study showed more than one quarter of studied mothers had extremely low degree regarding presence of enough money to meet needs. This result matched with study by **Dinh & Nguyen, (2020),** who performed a study of parents' and children's paradoxical perceptions of online learning during the Covid-19 pandemic, N= 25, Indonesia, reported that most of parents had an average lower-middle economic status make them unable to meet need for distance learning. This might be due to parents who lost their jobs during covid-19 and had limited income being unable to manage the monthly expenditure for internet connectivity due to the increasing costs associated with internet connectivity and they encounter extra challenges brought forth by unequal access to technological infrastructure.

Regarding total quality of life score regarding distance learning among studied mothers, the current study demonstrated that less than two thirds of them had low quality, while less than one fifth of them had high quality. On other hand, this finding disagreed with study by **Johanisa et al., (2021)** who conducted a study about "Parents' Perception of Online Learning during the Covid-19 Pandemic A Literature Review Study", reported that most of the studied sample had high quality toward of Online Learning. This is explained by the fact that teachers and students were not given any prior training or preparation before the unexpected implementation of the distant learning procedure.

Regarding the relation between studied mothers' total quality of life and their socio demographic characteristics, the current study revealed that a highly statistically significant relations between total quality of life and their socio-demographic characteristics of studied mothers as age, educational level, residence, occupation, and marital status ($p< 0.001$). This finding in contrast with study by **Al Awaji**

et al., (2021) who conducted study about "Quality of life, needs and fears of mothers of children with disabilities during the COVID-19 lockdown" N= 340, Saudi Arabia, showed that there was significant relation between total quality of life and only the age of the mother.

The current study showed that there were highly statistically significant differences between children's educational level and quality of life among studied mothers. This result was in same line with study by **Hamaidi et al., (2021)** who reported that there were highly statistically significant differences between children's educational level and quality of life among studied sample. These results could be explained by the positive correlation between a university education and a good standard of living, which could be linked to the students' at-this-stage autonomous learning abilities. engaged in self-directed learning activities to develop the knowledge, abilities, and attitudes that they can gain without having to interact with teachers directly or be closely observed.

The current study showed that there were statistically significant relations between studied mothers' total knowledge regarding distance learning and their socio-demographic characteristics regarding age, educational level, residence, and occupation ($p< 0.001$), while there were no statistically significant relations between total studied mothers' knowledge and their socio-demographic characteristics regarding marital status ($p>0.005$). This results no in the same line with **Jayakumar et al., (2020),** entitled "Impact of online classes among parents of nursing students during pandemic", N= 81, India who reported that participants' demographic, in general, age and gender did not report any statistically significant effects. This might be due to when the mother had high education and had occupation become more oriented about any events occur outside, all family members mutually influence each other's adaptation, favoring the development of new knowledge/ resources that promote well-being even in difficult times, including pandemics.

Also, the current study showed a highly statistically significant relations between total quality of life score regarding distance learning and total knowledge scores ($p< 0.001$). This result is in the same line with **Zheng et al., (2018)** who conducted a study of "the relationship between health literacy and quality of life: a systematic review and meta-analysis", N= 12,303, China, they discovered that the association between QoL and the four HL dimensions was greater than the correlation between QoL and HL as a whole. This could be because people are satisfied with their quality of life, which is defined as their capacity to convert information into healthful actions. It serves as a bridge between knowledge and effective health-related abilities. Having good health skills enhances QoL and health status.

Conclusion:

A highly statistically significant relations between total quality of life and socio demographic characteristics of studied mothers as age, educational level, residence, occupation, and marital status ($p< 0.001$). Also, there were highly statistically significant relations between total quality of life score regarding distance learning and their family characteristics as number of children, children educational level and times of distance learning classes ($p< 0.001$). Furthermore, there were statistically positive correlation between studied mothers' total level of knowledge and their total quality of life score regarding distance learning ($p< 0.001$).

Recommendation:

- Creating counseling programs in facing these crises for families, training mothers on modern education strategies, designing guidance programs and working on them for all groups of society.
- Distributed booklet and posters about the importance of distance learning.
- Further research should investigate similar subjects with an emphasis on qualitative design to use in-depth interviews to gain a more comprehensive understanding of the quality of life of students enrolled in online courses.

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