

# Social Support, Emotional Intelligence and Technostress Mother During COVID-19 Pandemic

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## Abstract

This study is background by technostress experienced by mothers when helping children studying from home during the COVID-19 pandemic as a result of inability to use electronic devices like cellphone and laptop along with video calling application and others. This study aim to see the effect of social support and emotional intelligence on the technostress of mothers who helping child study from home during COVID-19 pandemic. This research use quantitative approach. The scale used in this study are social support from Sarafino, emotional intelligence from Goleman and technostress from Nimrod. This study used sample with criteria, mother who already married, have husband and children who is attended distance learning at elementary school first to six grade during COVID-19 pandemic. The sample consist of 120 respondents. The technique used in sampling is probability sampling, namely with purposive sampling. This study test the hypothesis with data analysis technique which is multiple linier regression analysis. Result show that social support and emotional intelligence effect on technostress with the amount of effect is 33,7%. Next result is social support effect on technostress but there is no effect on technostress by emotional intelligence

Keywords: Social Support, Emotional Intelligence, Technostress

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## 1. Introduction

World is experiencing a huge health crisis, including Indonesia, where the SARS-CoV-2 virus or what is usually called COVID-19 is spreading rapidly, this is also usually called a pandemic. The impact of the pandemic has had an effect on various aspects or sectors, one of which is education. So far, the conventional education sector has always used classes and face-to-face. Furthermore, during the pandemic, conventional face-to-face education was not possible, especially with a large number of students. It is feared that this condition will cause the rapid spread of the COVID-19 virus. Therefore, to reduce direct contact during the pandemic, discourse finally emerged about school learning being carried out online.

Online learning is known as Distance Learning. The Ministry of Education and Culture assesses that during the Distance Learning period, parents have a big role in accompanying their children to study from home. In this way, the role of parents is the key to the success of online learning. Parents are required to be able to guide children studying from home and be able to replace teachers at school, so the role of parents in achieving online learning goals and guiding children while studying at home becomes very important (Wardani & Ayriza, 2020). However, parents often face problems when helping and accompanying their children in learning activities from home.

The problems that often arise and are faced by mothers as parents who help children while online learning are difficulties with pressure in using technology, difficulties in providing supporting devices and lack of time to accompany learning (Wardani & Ayriza, 2020; Susilowati & Azzasyofia, 2020). This problem makes mothers who accompany their children during online learning feel a feeling of pressure from the environment that arises due to situations that force

mothers to use electronic devices, where there are sudden changes so that mothers are forced to relearn and understand the use of electronics to support the online learning process. The problem of inability to use computers and work with computers/technology will basically cause stress which is usually called technostress. This is in accordance with the results of an initial study conducted by researchers on two mothers, where both of them tend to experience pressure in using technology, both using hardware such as laptops and cellphones as well as software, namely messaging applications, video calling applications, video making and editing applications and others which ultimately trigger stress.

## 2. Literature Review

Technostress is defined as any negative impact on attitudes, thoughts, behavior or psychology caused directly or indirectly by technology. Brod (in Kuo, Chen, & Yang, 2009) states that technostress is a condition where individuals are unable to adapt to computer technology in a healthy and appropriate way. According to Nimrod (2018), the impact and symptoms of technostress itself are physical, such as increased heart rate, cardiovascular disorders, gastrointestinal disorders, insomnia, headaches, and hormonal and menstrual disorders in women. Meanwhile, mental impacts include irritability, apathy, crying quickly, decreased sexual desire and even depression.

Referring to the explanation regarding the impact of technostress above, of course treatment is needed regarding the technostress felt by the mother. One of the factors that influences stress is social support. This is in accordance with the opinion expressed by Lazarus & Folkman (in Hianto & Shanti, 2018) that social support is one source that influences the cognitive assessment of stress that is pressing on the individual, which ultimately influences the way the individual handles the stressors they experience. Apart from that, according to Uchino, Cacioppo, & Kiecolt-Glaser (1996) physiological responses that arise due to stress can be reduced by the presence of social support. This is in accordance with the results of previous research which shows that social support can prevent anxiety and reduce stress (Johnson & Jhonson in Safitri & Hapsari, 2013). Weinert, Maier & Weitzel (2020) also found that in general social support can reduce technostress. Social support is also able to encourage individual performance in using technology (McLean, Gaul, & Penco, 2022) showing that high levels of social support help students to deal with stress.

Apart from social support which influences stress, it is said that emotional intelligence also influences stress. According to Yadav, Khanna, & Singh (2016) that every individual is different in dealing with stress. Individual differences in dealing with stress are influenced by various factors, one of which is emotional intelligence. The term emotional intelligence was first used in 1990 by Salovey and Meyer, which was then popularized by Goleman. According to Salovey and Meyer (2004) emotional intelligence is a social intelligence related to a person's ability to monitor both his own emotions and the emotions of others, where he uses this ability to direct his thought patterns and behavior. Furthermore, Goleman (2007) explains that emotional intelligence is the ability to motivate oneself and survive frustration, control impulses and not exaggerate pleasure, regulate mood and keep stress from paralyzing the ability to think and empathize. Hargreaves, Fullan and Tait (2008) state that someone with high emotional intelligence is able to manage feelings, handle stress, face failure optimistically, and persevere in the face of difficulties. In addition, emotionally intelligent individuals are able to function well in the environment. This individual is able to understand each of his own emotions and use adaptability well in responding to each negative stimulus (Barret, Salovey & Mayer, 2002).

### 3. Research Methodology

There are three variables in this research, namely social support and emotional intelligence as independent variables and technostress as the dependent variable. Social support is attention, feelings of comfort and help received from other people or groups, giving rise to the feeling that a person has meaning to other people, such as feeling loved, cared for, appreciated, respected and being part of their social network. Emotional intelligence is the ability to recognize and understand one's own and other people's feelings, motivate oneself, control one's impulses and survive frustration and other abilities that are able to regulate one's mood so one is free from stress. Technostress is a form of disorder caused by the inability to use new technology such as computers in the right way which has a negative impact on attitudes, thoughts, behavior or psychology caused directly or indirectly.

This research uses a measuring instrument in the form of a scale which aims to reveal social support intentions, emotional intelligence and technostress. The first thing to do is conduct a literature study on the theories used in the research. Then the researcher compiled a scale as a measuring tool based on the dimensions and aspects of each variable. These three scales are Likert scales. The three measuring instruments used are the social support scale based on the five dimensions proposed by Sarafino (2006), the emotional intelligence scale based on five aspects by Goleman (2017), and the technostress scale based on four aspects developed by Nimrod (2018). Researchers conducted a scale trial on 2 June 2022 to 6 June 2022 on 60 respondents.

The results of the trials that have been collected are then carried out for reliability and discrimination tests on each scale. The technostress scale tested consisted of 24 items based on aspects, namely overload, invasion, complexity and inclusion. Based on the test results, there were 17 items which were stated to have good item discrimination power and this scale had a reliability coefficient of 0.899. The second scale that was tested was the social support scale with 30 items based on five dimensions, namely emotional support, appreciation support, instrumental support, information support and network support. Based on the results of the trial, there were 24 items which were stated to have good item discrimination power and this social support scale had a reliability coefficient of 0.933. The emotional intelligence scale tested consisted of 31 items based on five dimensions, namely recognizing emotions, managing emotions, motivating oneself, recognizing other people's emotions and building relationships. Based on the test results, there were 20 items that had good item discrimination power with a reliability coefficient of 0.853.

Sampling used a purposive sampling technique with the characteristics of the sample used in this research being mothers who had or are currently accompanying children studying from home during the COVID-19 pandemic who are currently at the elementary school level. Data collection was carried out from 11 June 2022 to 27 June 2022 with a total of 120 subjects. The statistical analysis used in this research is multiple linear regression analysis. This multiple linear regression analysis technique was used to determine the extent of the influence of social support and emotional intelligence variables on technostress. Before carrying out multiple linear regression analysis, several assumption tests are carried out first, namely the normality test, linearity test and multicollinearity test.

### 4. Result

Researchers carried out several assumption tests, namely normality tests and multicollinearity tests. The first assumption test is the normality test, which aims to test whether in the regression model the dependent variable and the independent variable both have a normal distribution or not. If in the normality test there is a significance value  $> 0.05$  then the distribution can be said to be normal. The results of the normality test can be seen in table 1

Table 1. One-sample Kolmogorov-Smirnov Normality Test

		Unstandardized Residual
N		120
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	6.02057237
Most Extreme Differences	Absolute	.075
	Positive	.061
	Negative	-.075
Test Statistic		.075
Asymp. Sig. (2-tailed)		.096c
Test distribution is Normal.		

Based on the table above, it can be seen that the significance value obtained is 0.096, so it can be said that the regression model in this study is normally distributed. Next is the second assumption test, namely the multicollinearity test which is used to determine the possibility of a relationship between independent variables. Multiple symptoms are detected if the VIF value is ( $p < 10$ ) and the tolerance value  $p$  is  $> 0.10$ . The results of the multicollinearity test can be seen from table 2 below.

Table 2. multicollinearity test

Variabel	Collinearity statics	
	Tolerance	VIF
Sosical Support	0,679	1,473
emotional intelligence	0,679	1,473

Based on the results of the multicollinearity test in the table above, it can be seen that for the social support and emotional intelligence variables, a Tolerance value of 0.679 ( $> 0.10$ ) and a VIF value of 1.473 ( $< 10.00$ ) were obtained. These results indicate that there were no symptoms of multicollinearity in this study.

This research uses a multiple linear regression analysis method. This technique is used to see the extent to which a variable influences another variable or several other variables. In this analysis, the F test or simultaneous regression coefficient test is used to determine whether the independent variables in the form of social support and emotional intelligence together have a significant effect on the dependent variable, namely technostress. Based on the results of the regression test, an F value of 29.783 ( $> F$  table 3.07) was obtained with a significance value of 0.000 ( $p < 0.05$ ). These results show that there is a significant influence of social support and emotional intelligence on technostress in mothers who accompany their children to study from home during the COVID-19 pandemic.

Apart from that, based on the results of the regression test, the R Square was 0.337. These results show that social support and emotional intelligence have an influence of 33.7% on technostress. Meanwhile, the remaining 64.3% was influenced by other factors not included in this research. The results of the regression test of social support and emotional intelligence on technostress can be seen in table below

Table 3. Simultaneous regression coefficient test

Model	Sum of square	df	Mean square	F	Sig.
Regression	2196,039	2	1098,019	29.783	0.000b
Residual	4313,428	117	36,867		
Total	6509,467	119			

Next, the partial regression coefficient test or T test aims to determine the magnitude of the influence of each independent variable on the dependent variable. Based on the results of the regression test, the calculated T value was 5.971 ( $> T$  table 1.98045) with a significance value of 0.000 ( $p < 0.05$ ). These results show that there is a significant influence of social support on technostress in mothers who accompany their children to study from home during the COVID-19 pandemic. Social support which has an influence on technostress can also be seen from the standard beta coefficients of 54.5%. Furthermore, based on the results of the regression test, a calculated T value was also obtained of 0.648 ( $< T$  table 1.98045) with a significance value of 0.519 ( $p > 0.05$ ). These results show that there is no effect of emotional intelligence on technostress in mothers who accompany their children to study from home during the COVID-19 pandemic. If we look at the standard beta coefficients, the magnitude of the influence of emotional intelligence on technostress is only 5.9%. The results of this T test can be seen in table 4 below.

Table 4. Partial regression coefficient test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	11,467	5,484		2.089	0.039		
Social support	0.395	0.066	0.545	5.971	0.000	0.679	1.473
Emotional intelligence	0,067	0.104	0.059	0.648	0.519	0.679	1.473

## 5. Discussion

Based on the results of the analysis, it is stated that this research hypothesis is accepted. It can be said that social support and emotional intelligence simultaneously have a significant effect on technostress. The results of this research show that respondents received quite good support from their husbands as partners, family as their closest environment and friends who were always loyal. Respondents received support in the form of emotional support such as attention from husbands, family who always asked about the situation, information support in the form of friends to ask if respondents had problems using electronic devices, husbands who installed wifi to make it easier to use the internet and so on. Apart from that, it appears that respondents tend to understand every emotion they have. If the respondent starts to feel tired and depressed, he does not immediately feel annoyed and angry. Respondents also have motivation to learn both in the use of electronic tools used in distance learning and learning in general. This also makes respondents better at managing the pressure that causes technostress and reducing technological stress.

Research conducted in 2020 by Sibua & Silaen on 110 people aged 20-40 showed that the higher the social support and emotional intelligence they have, the lower the stress felt by the community in the midst of the COVID-19 pandemic. Apart from that, there was research conducted on 132 resident doctors at the H. Adam Malik Central General Hospital by Afwina

(2019). The results of this study show that doctors have high emotional intelligence and social support, this can help doctors reduce the level of stress experienced while working in hospitals.

Meanwhile, based on additional analysis carried out partially, it shows that social support has an effect on technostress, while emotional intelligence has no effect on technostress. Based on the test results, mothers who have a good significant other from a supportive environment will have the ability to reduce the level of technostress that occurs to them. A supportive partner or husband in the form of material support, such as always providing the best internet network, as well as capable electronic devices, is one of the social supports received by respondents. Apart from that, the support of closest friends and family who taught the respondent if he had difficulty using electronic devices, both hardware and applications, was also a reason for the respondent to manage pressure so that it did not cause high levels of technostress.

The statement above is supported by the theory from Ragu-Nathan (2008) that information systems that are difficult to use can cause technostress. However, individuals who experience technostress will take ways to eliminate it, one of which is by seeking support from other people (Liang in Weiner, Maier & Weitzel, 2021). When this technological system experiences interference either from the system itself or from individuals, individuals often seek help from friends, family and those closest to them. This support from other people can change how individuals view previous problems in a more positive way (Folkman et al in Weiner et al, 2021). This form of seeking support is an important reason to maintain well-being and good performance in using technology.

The test results above are in accordance with an experimental study conducted by Weinert, Maier & Weitzel in 2020 on 73 subjects. Weiner et al found that in general social support was able to reduce technostress. This research also explains that social support can encourage individual performance in using technology. Weirner further explained in his findings that the effect of social support on technostress is different for each individual. Furthermore, research conducted by Pradani, Priharsari and Wijoyo (2022) on vocational high school (SMK) teachers shows that support from organizations that are schools can help teachers reduce the technostress experienced when teaching during the COVID-19 pandemic.

Respondents who are mothers have high emotional intelligence with the ability to manage emotions well, but are still unable to solve technical problems directly. Technical problems in the form of inability to use electronic devices in the form of cellphones or laptops are the cause of technostress (Brod, 1984).

Apart from the above, mothers who have good emotional intelligence have the motivation and willingness to learn better, apart from that the respondent's ability is still quite adequate in managing emotions. However, despite this, respondents who have good abilities in emotional intelligence do not take advantage of this. Because sometimes there are several factors that cause respondents not to utilize emotional intelligence, such as results that are not directly visible. It would be different if the respondent directly received support in the form of material assistance and information from her husband or family. This is also in accordance with the theory which states that emotional intelligence is not considered by some people to be the main thing, there is no confidence in their emotional intelligence, they even show doubts about their feelings so that people do not use their emotional intelligence abilities and tend to prioritize personality characteristics. so that in this case, emotional intelligence plays less of a role in managing feelings when facing a problem (Gohm, 2003).

Research conducted by Wibowo and Kjongian (2022) shows that there is no influence of emotional intelligence on student stress. This research reveals that there is a more important factor in reducing student stress, namely strong social support among overseas students. Overseas students tend to deal with stress by regulating their emotional response to stress using a behavioral approach by seeking social support from friends, relatives and carrying out other activities (Tyas & Savira, 2017). Through the support of peers or people closest to you, it will also increase self-

confidence and positive support to overcome stressful situations (Kountul et al, 2018). Apart from that, there is research from Rahmawati, Wicaksono, & Sholichah (2019) with student respondents in Gresik. The results of this research show that although 15% of respondents have high emotional intelligence and another 64% have moderate emotional intelligence, respondents do not utilize their emotional intelligence to reduce stress. So the results of this research are that there is no influence of emotional intelligence on stress.

## 6. Conclusion

Based on the results of the analysis that has been carried out, it can be concluded that there is an influence of social support and emotional intelligence on technostress in mothers who accompany their children to study from home during the COVID-19 pandemic. Social support has a significant influence on technostress, but there is no influence of emotional intelligence on technostress.

The limitation of this research is that the effective contribution of the social support and emotional intelligence variables is not large. Therefore, it is hoped that future research will be able to examine other variables that are predicted to have a greater effective influence on technostress. Apart from that, research like this also has a factor that must be taken into account, namely the time span because research can only be carried out during the pandemic.

## 7. Suggestion

There are several suggestions that can be given based on the results of this research to mothers as respondents, husbands or families as well as further research as a form of knowledge development. In order to reduce the technostress experienced by mothers, respondents as mothers and also substitute teachers can assertively seek support from partners, family and closest friends in helping children with distance learning and subsequent learning. Apart from that, mothers can also try to find free time and use this free time as time for themselves to channel the pressure they feel while helping their children study. Husbands and families are also expected to be more proactive in providing support in any form to mothers as respondents in this research.

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