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Parental Stress, Resilience and Mental Wellbeing during the COVID-19 Nationwide Lockdown in Enugu Southeast Nigeria: Does Gender Make a Difference

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Abstract

This study explored how parental stress, gender, and resilience played roles in parental mental wellbeing during the nationwide lockdown in Nigeria. Participants were parents, 118 (57.6%) females and 87 (42.4%) males who reside in Enugu, Southeast Nigeria. They were recruited online through social media platforms using Respondent-Driven Sampling (RDS) method. They responded to questions on socio-demographic information and measures of parental stress, resilience and mental wellbeing. Hayes' regression-based PROCESS macro was used to analyze the data. Parental stress was negatively associated with mental wellbeing, while resilience was positively associated with mental wellbeing. Gender was not independently significantly associated with mental wellbeing, but it moderated the relationship between resilience and mental wellbeing. The positive relationship between resilience and mental wellbeing was strongest for male parents than female parents. This study has brought to the fore the negative relationship between lockdown and parental stress and their effect on parental wellbeing.

Keywords: COVID-19 lockdown, mental wellbeing, parental stress, resilience

Introduction

The outbreak of Coronavirus disease (COVID-19) and its rapid spread in early 2020 came to many governments as a considerable surprise. COVID-19 is an illness caused by a novel coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Li, Liu, Yu, et al., 2020; Savino, Manuela, Anna, et al. 2020; Wu, Chen, & Chan, 2020). It was first identified in Wuhan City, Hubei Province, China, and reported to the World Health Organization (WHO) on 31st December 2019 (WHO, 2020). On 11th March 2020, the WHO declared COVID-19 a global pandemic (WHO Director-General, 2020). The rapid spread of COVID-19 forced many governments to rush into a severe form of mass quarantine measures or lockdown to contain the spread of the disease, with little time to consider the advantages of other alternatives to those basic lockdown strategies (Lippi et al., 2020).

Other stringent measures included bans on a wide range of social activities, wearing facemasks, regular hand-washing with soap, use of hand sanitisers, social distancing, school closures, travel restrictions, and closures of local businesses. The closing of schools and childcare facilities forced many working parents to take full-time responsibility for their children's care and home education. Many organisations adopted a compulsory remote work policy requiring many of their staff to work from home (Adalja, et al., 2020), gradually blurring the dividing

line between professional and family duties (Capitano & Greenhaus, 2018). These circumstances put parents and their children at increased risk for psychological distress and most likely compromise their wellbeing (Liu et al., 2020; Spinelli et al., 2020). The effects of the COVID-19 pandemic on families vary considerably based on what contextual stress factors parents are exposed to (Cluver et al., 2020; Fegert et al., 2020; Spinelli et al., 2020). On many occasions, the changes brought about by lockdown measures were accompanied by low productivity, reduced income, unemployment, and unprepared new responsibilities that may exacerbate pre-existing difficulties and stress. (Cluver et al., 2020; Fegert et al., 2020; Spinelli et al., 2020;). Stress during the lockdown seemed to be associated with expanded media coverage of the COVID-19 pandemic, with the attendant pervading sense of doom and gloom enveloping the world. The effects of the COVID-19 pandemic on families could have increased the risk of psychological disturbances such as anxiety, anger, sleep disorders, depression, and post-traumatic stress disorder (Buheji et al., 2020; Brooks et al., 2020; Golberstein et al., 2020).

Parenting stress arises when parenting demands exceed the expected and actual resources available to the parents that permit them to succeed in the parent role (Deater-Deckard, 2008). It is the distress experienced when a parent feels that he/she cannot cope as a parent and that the demand placed on him/her has become too much (Holly et al., 2019; Deater-Deckard, 1998). Child behavioural difficulties (Stores et al., 1998), ineffective parental coping strategies (Kim et al., 2003), lack of positive perceptions (Hastings & Taunt, 2002), low socioeconomic status (Willoughby & Glidden, 1995), low level of social support and lack of cohesion among family members (Ben-Zur et al., 2005; Lustig, 1999; Heller and Factor 1993) are some of the factors associated with more significant parental stress. Higher parental stress is also related to a lack of social skills in children and inadequate communication between child and parent (Smith et al., 2001).

In adverse life conditions, failure to manage the situation efficiently results in perceived distress, and self-appraisal plays a significant role in dealing with environmental stressors (Lazarus & Folkman, 1984). Parents are more likely to achieve healthy favourable outcomes if they are resilient. Resilience has been described as the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress (American Psychiatric Association, 2013). An individual, therefore, can thrive or bounce back despite exposure to various misfortune (Garrido et al., 2013). The mode of processing information and a character trait help resilient individuals to maintain stable functioning over time, in the face of major stressful life events or potentially traumatic events (Bonanno & Mancini, 2008; Bisconti, et al., 2006), and resilience could be attributed to a healthy adaptation (Galatzer-Levy et al., 2011). Several personal and interpersonal variables, such as age, personality, developmental level, family support system, cognitive and emotional abilities, coping strategies, and resilience, can influence people's responses to adversity (McDermott, et al., 2012; Trickey et al., 2012; Madrid et al., 2006).

Many studies document differences in men's and women's coping styles, with many noting a more active style among men compared to women (Boardman et al., 2008). Active styles are more protective against the ill effects of stressors (Pearlin & Schooler, 1978). Women are more likely than men to ruminate over problems, whereas men typically distract themselves physically or instrumentally (Nolen-Hoeksema, 1987). It is thought that sex may constrain the genetic expression of resilience among women and may enable this potential among men (Shanahan & Hofer, 2005). Previous studies suggest that genetic factors also play a significant role in individual differences in resilience (Rutter, 2003; Silberg et al., 2001). Women have been shown to have lower self-confidence, self-esteem, and self-efficacy than men (Costa et al., 2001; Feingold, 1994; Kling et al., 1999; Lynn & Martin, 1997). Aspects of psychological

functioning that underpin the ability to cope effectively are often implicated in research on resiliency to childhood adversity. Compared to women, men derive additional benefits from environmental mastery that may enable otherwise sex-neutral resilient tendencies to manifest (Boardman et al., 2008). Among women, age may be related to non-direct positive affect but is not associated with negative affect. Among men, age interacted with two key variables in predicting affect: extraversion and marital status (Mroczek & Kolarz, 1998). Resilience increases with age, especially concerning emotional regulation ability and problem-solving. The young ones had more resilience related to social support. High hope predicts greater resilience at any age (Gooding et al., 2012).

Understanding the influence of parental stress on parental mental wellbeing is important for several reasons, including improving parental/child quality of life, supporting parental needs, reducing potential economic burden in the long term, and strengthening the existing body of knowledge on which practice is based. This study aimed to explore how parental stress, gender and resilience played roles in parental mental wellbeing during the nationwide lockdown in Nigeria and to assess the moderating role of gender in the relationship. Based on the reviewed literature, we hypothesised that (1) Parental stress will be negatively associated with mental wellbeing. (2) Resilience will be positively associated with mental wellbeing. (3) Gender will moderate the relationship between parental stress and mental wellbeing. (4) Gender will moderate the relationship between resilience and mental wellbeing.

Method

Participants

This study included 205 parents, of which 118 (57.6%) were females, and 87 (42.4%) were males. Their ages ranged from 26 to 67 years (Mean age = 42.89, *SD* = 7.23). While 39% of the participants had a master's degree or its equivalent, 30.7% had a PhD and above, 27.3% had a BSc/Higher National Diploma (HND) or its equivalent, 2.4% had an Ordinary National Diploma (OND) or equivalent, and 0.5% had Senior School Certificate of Examination (SSCE). Regarding marital status, 94.1% were married, 2.4% were widowed, 2.4% were separated, and 1% were single mothers. Regarding their occupation, 33.2% were health workers, 63.4% were non-health workers, and 3.4% were unemployed. With regards to the number of children living with them during the lockdown, 2.4% had no child at the time, 11.2% had one child, 22.9 had two children, 23.4% had three, 27.8% had four children, 8.3% had 5, 2.9% had six and 1% had eight children living with them. While 82.9% identified that their spouses had been with them during the lockdown, 17.1% did not have their spouses present during the lockdown.

Measures

The questionnaire form for this study comprised three parts: online informed consent, socio-demographic information and an online battery of psychological measures. These measures were the Parental Stress Scale, WHO-5 Wellbeing Index and Brief Resilience Scale.

Parental Stress Scale

The Parental Stress Scale (PSS: Berry & Jones, 1995) is an 18-item inventory designed to measure stress unique to parenting. It captures both joys and demands of parenting. The scale is scored on 5-point Likert responses ranging from 1= strongly disagree to 5 = strongly agree. The overall scores range from 18 to 90, with the higher scores indicating a higher level of parental stress. A study from the Nigeria sample reported Cronbach's alpha reliability

coefficient of 0.83 (Onyedibe, Ugwu, Mefoh & Onuiri, 2018), similar to Berry and Jones (1995), while this present study obtained 0.81 Cronbach's alpha.

WHO-5 Wellbeing Index

The WHO-5 Wellbeing Index (WHO, 1998): is a 5-item self-reported inventory that measures subjective wellbeing over the past two weeks. It is scored on a 6-point Likert scale ranging from 0 = At no time to 5 = All of the time. The raw score ranges from 0-25, with higher scores representing the best imaginable wellbeing. Garland et al. (2018) reported a Cronbach alpha coefficient of .83. Evidence of the validity of this scale in a Nigerian population had been recently established by Ogunbode et al. (2022), who also reported an alpha reliability of .77. This present study obtained a Cronbach's alpha of .86.

Brief Resilience Scale

The Brief Resilience Scale (BRS: Smith, et al., 2008) is a 6-item scale that measures the perceived ability to bounce back from stressful situations. It has both positively and negatively worded items. Each item is scored on a 5-point Likert response from 1 "strongly disagree" to 5 "strongly agree", with a total score range of 6 to 30. Higher scores indicate a higher resilience. Studies in other samples reported Cronbach alpha of .71 and .78 (Fung, 2020, Soer, et al., 2019,). Arah et al. (2021) recently validated the BRS among a Nigerian population. They reported an alpha reliability coefficient of .90. The current study obtained a Cronbach alpha of .70 using the present dataset.

Procedure

This online study was conducted in Enugu State, Southeast Nigeria, between 1st May and 30th June 2020 during the COVID-19 Lockdown period. The participants were drawn from Enugu, Southeast Nigeria, which has a population of 3.3 million people, with about 59% living in the rural area (Makama, 2007). They were recruited online using the Respondent-Driven Sampling (RDS) method, a network-based sampling technique. This method was considered appropriate due to the restriction measures, including the lockdown to limit the widespread of COVID-19. Consequently, some parents within Enugu were contacted to participate in the study. The link to the questionnaires for the study was sent to them through the WhatsApp platform, which they were asked to share to parents within Enugu. The parents were then driven to share the questionnaire link to other parents in Enugu. To further ensure that the data was restricted to Enugu State, participants were asked if they lived in Enugu State. Those who responded "no" to the question were thanked for their time and logged out of the survey. The WhatsApp platform is widely used in Nigeria and adopted in other related studies (Masresha, et al., 2020; Iorfa et al., 2020) and was primarily used by parents during the lockdown to assist their children in online learning. Those who have access to the internet, who understood the English Language and were willing to give informed consent, participated in the study. The data were collected anonymously. They were assured of the confidentiality of the study and were informed that they had the option to withdraw from the study at any point they wished. Ethical approval was obtained from the Institution Review Board of Federal Neuropsychiatric Hospital Enugu. Informed consent was obtained from the respondents using an embedded form.

Statistical Analyses

The data were analysed using SPSS version 22.0 software. Pearson's correlation analysis was conducted to examine zero-order correlations among the study variables, while Hayes's (2020) PROCESS macro was used to test the study's hypotheses. The PROCESS macro is preferred

over ordinary regression analysis due to its robustness and flexibility in testing moderation hypotheses. It conducts regression-based path analysis and creates product terms to analyse interaction effects, automatically centring the predictor variables before the analysis (Eze, et al., 2021).

Results

Table 1. Means, standard deviations and inter-correlations of demographic and main variables

Variables	*M*	*SD*	1	2	3	4
1. Mental wellbeing	18.19	3.95	_			
2. Gender	-	-	-.02	_		
3. Age	42.73	7.74	.02	-.23**	_	
4. Parental Stress	36.77	8.65	-.30**	-.01	-.12	_
5. Resilience	21.63	4.05	.28**	-.10	.09	-.38**

*= $p<.05$; ** = $p<.01$; Gender: (0= male parents; 1= female parents).

Results in Table 1 indicated that mental wellbeing did not correlate with gender and age but was negatively correlated with parental stress ($r= -.30$, $p<.01$) and positively correlated with resilience ($r= .28$, $p<.01$), suggesting that parental stress had negative impacts on mental wellbeing. Parental stress negatively correlated with resilience (r= -.38, p<.01), suggesting that resilience was negatively associated with parental stress. In contrast, resilience positively impacted the mental wellbeing of parents during the nationwide lockdown. Age negatively correlated with gender ($r= -.23$, $p<.01$), suggesting that male parents in the study were older than their female counterparts and therefore were controlled for as a covariate in testing the hypotheses.

Table 2. Hayes' Process Macro results predicting mental wellbeing from parental stress, resilience and gender

Predictors	***B***	***SE***	***T***	**95% *CI***
(a) Parental stress and mental wellbeing				
Age (covariate)	-.02	.04	-.43	[-.09., .05]
Parental stress (PS)	-.15	.05	-3.15***	[-.24., -.05]
Gender	-.69	2.35	-.29	[-5.32., 3.95]
PS x Gender	.01	.06	.19	[-.11., .13]
(b) Resilience and mental wellbeing				
Age (covariate)	-.04	.01	-.40	[-.08., .06]
Resilience	.47	.11	4.08***	[.24., .69]
Gender	-.69	2.35	-.29	[-5.32., 3.95]

Resilience x Gender	-.29	.14	-2.07*	[-.57., -.01]

*** = p<.001; * = p<.05; (a) total R^2= .09, F(4, 200) = 5.11, p<.001 (b) total R^2= .10, F(4, 200) = 5.36, p<.001. Gender: (0= male parents; 1= female parent).

Table 2 shows that parental stress was negatively associated with mental wellbeing (B= -.15, t= -3.15, p<.001), suggesting that for every unit increase in parental stress, parents' mental wellbeing decreased by .15 units. It did not moderate the relationship between parental stress and mental wellbeing, but it moderated the relationship between resilience and mental wellbeing. Resilience was positively associated with mental wellbeing such that for every unit increase in resilience, mental wellbeing increased by .47 units. With age controlled for as a covariate, gender was not associated with mental wellbeing.

Simple slope analysis of the moderation effect revealed that the positive relationship between resilience and mental wellbeing was strongest for male parents (B=.47, t-=4.08, p<.001, 95% CI= .24, .69) than female parents (B=.17, t-=2.15, p<.01, 95% CI= .01, .33). This suggests that resilient parents who were male experienced more mental wellbeing than female parents during the nationwide lockdown.

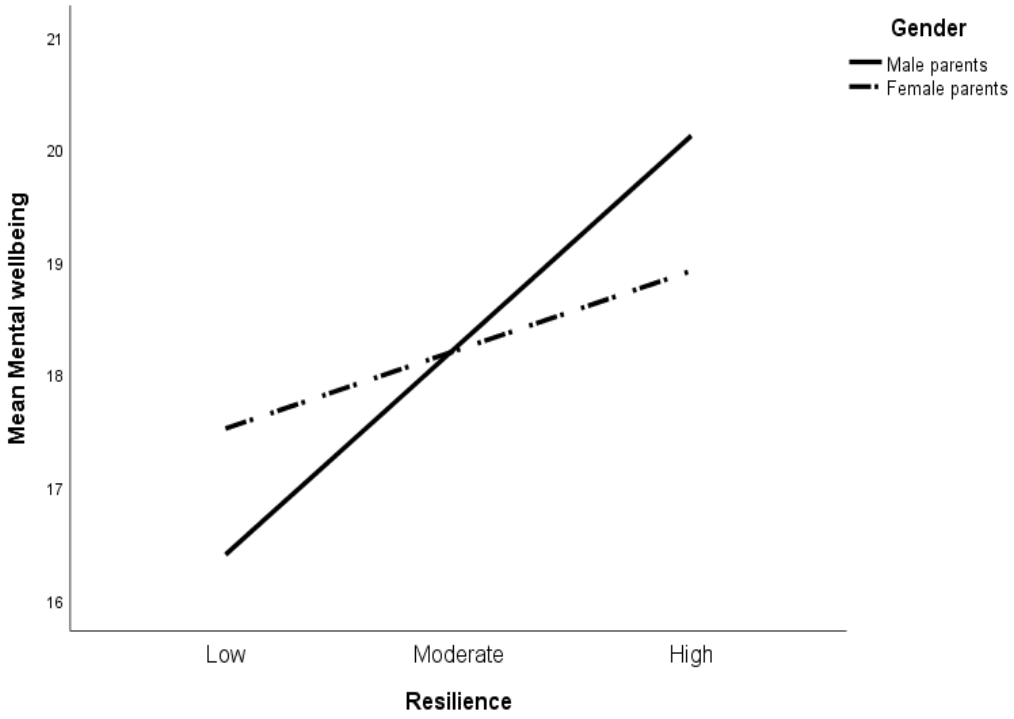

Figure 1: Slope showing the moderating role of gender on the relationship between resilience and mental wellbeing

Discussion

The study investigated the psychological impact of covid-19 lockdowns on Nigerian parents, exploring the relationship of mental wellbeing with contextual and personal factors.

The study found that confinement measures following the COVID-19 pandemic have significant psychological impacts on mental wellbeing. The finding supports the first study hypothesis that parental stress will predict mental wellbeing. The result was consistent with prior research (Lau et al., 2008; Brown et al., 2020). A negative correlation was found between parental stress and wellbeing. It supports other studies demonstrating an inverse relationship between stress and psychological wellbeing (Schönfeld et al., 2015; Spinelli, 2020). Specifically, stress increases negative emotions, reduces performance efficiency, impacts strongly on relationships, and can ultimately affect one's psychological wellbeing depending on the length of exposure to the stressful condition and the presence or absence of coping resources (Babore et al., 2020). The unusual and prolonged engagement in parenting roles during this lockdown exposed parents to unusual sources of stress, including social distancing, unstable finances, and childcare, amongst others (Calvan0 2021; Griffith, 2020).

We also observed that more resilient parents reported a higher level of wellbeing, supporting the second study hypothesis that resilience will predict mental wellbeing. The finding was consistent with previous studies (Cusinato, 2020; McGowan, 2018; Marchetti, 2020). Resilience is a critical element that helps one function well in adverse and challenging conditions. Also, it has been linked to a better positive coping style (Wu, 2020). Others have attributed positive emotions as active ingredients within trait resilience that contribute to reducing the risk of depression and promoting wellbeing in general (Fredrickson et al., 2003). Overall, the finding is in tandem with these reports as parents with higher resilience traits had better mental wellbeing despite facing similar challenging confinement conditions with their counterparts. This points out that pre-existing traits play a vital role in mitigating psychological sequelae in parents during the Covid-19 lockdown.

The utility of resilience as a construct can be viewed either at the level and type of stress experienced, (personal meaning of stress) or at the level of competence required by the individual to cope with the problematic condition effectively (Davydov, 2010). As expected, resilience showed a negative association with parental stress; this suggests that participants from our study who are more resilient reported lower parental stress levels despite the arduous nature of parenting during this period (Calvano, 2020). Therefore, resilience in our study may have sufficed as a coping reserve to adapt to the many adverse changes the pandemic imposed and serve to modify the personal interpretation of situations as stressful or not.

The interaction with socio-demographic variables did not highlight a significant association of mental wellbeing with gender and age. Gender showed no association with mental wellbeing. This contrasts with the findings of other studies, which showed that females were more vulnerable to psychological distress (Marchetti, 2020; Boardman et al., 2008).

The null effects we found may be explained in many ways. The female participants in our study had characteristics linked with a lower risk for developing parenting-related distress like 'being married and 'having attained a higher educational level' as illustrated by previous literature (Matud et al., 2020). More so, male and female parents were forced to stay home during the lockdown, possibly, increasing male parenting responsibilities. In the pre-COVID era, female parents were usually considered the primary caregiver in this culture; however, during the lockdown, most of them shared parental roles with their partners, which might have reduced caregiving distress. Further, the forced stay-at-home might have given some parents, especially females, a chance to rest from a tasking professional environment while enjoying support from the home.

Gender did not moderate the relationship between parental stress and mental wellbeing, as hypothesised. This may also be accounted for by the illustrated interactions of our study participants characteristics highlighted above. On the other hand, gender moderated the relationship between resilience and mental wellbeing. This positive relationship was most substantial for male parents. This suggests that resilient male parents had higher mental wellbeing scores than their female counterparts. Sex may constrain women's genetic expression of resiliency, enabling this potential among men (Shanahan & Hofer, 2005). As in previous studies, this analysis confirms that genetic factors could also play a significant role in individual differences in resilience (Rutter, 2003; Silberg et al., 2001).

This study has highlighted the link between lockdown and parental stress, which is detrimental to parental wellbeing (Spinelli et al., 2020). To improve parental wellbeing, understanding the factors influencing parental stress become imperative. Therefore, parents' stress-reduction strategies should be prioritised when developing quarantine protocols. The study has highlighted the importance of accessible and effective mental health services in Nigeria. Many mental health professionals would be required to help parents deal with difficult circumstances like the lockdown that followed the COVID-19 pandemic. Having an online support group and receiving psycho-education during a lockdown may help parents build resilience and lessen the effects of stress. Given that these services would be better provided through Information and Communication Technology (ICT) channels and the limited availability of ICT infrastructure in many regions of Nigeria, the Federal Government of Nigeria's national broadband penetration policy should be given desired attention in the implementation because of its potential benefits for future lockdown.

Study Limitations

A few issues with the current study need to be addressed. First, since this is a cross-sectional study, no conclusions about direction or causation can be drawn from the findings. To better understand the phenomenon, a longitudinal study of how parental stress is affected by quarantine, along with how it affects family dynamics and wellbeing, was imperative. Additionally, respondents' responses to self-report questions may be constrained because they might need to reveal or accurately represent the underlying construct fully. Even though they were widely used during the pandemic, participants in the study needed a basic understanding of the internet and technical skills, including the ability to use smartphones, computers, and tablets.

Also, online studies may limit participation to those who are IT-compliant or may have access to data. The region's uneven access to information and communication technology affected the study sample. As a result, only Internet users were included in our study.

Conclusion

According to our findings, parents may experience difficulties during the COVID-19 quarantine. Abrupt changes in daily routine negatively impact parental psychological states, and parents' wellbeing is seriously jeopardized. This study identifies individual and environmental factors that affect how people adjust psychologically to the pandemic and can aid the healthcare system and healthcare professionals in identifying at-risk families early enough. To lessen the effects of the lockdowns due to a pandemic like COVID-19 on families' health and wellbeing, the government should concentrate on meeting the needs of families by developing special programs for them.

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