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Parenting stress, self-efficacy and COVID-19 health risks as predictors of general stress among nurses

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Abstract

Aim: The purpose of the study was to examine the influence of parenting stress, self-efficacy and COVID-19 health risks on general stress among nurses in the Midwest, United States, during the pandemic.

Background: As frontline workers amidst the coronavirus disease 2019 (COVID-19) pandemic, nurses have been subject to stressors at home and at work.

Method: This quantitative, cross-sectional study included 896 nurses with at least one child below 18 years of age. Using purposive sampling, participants answered an online survey composed of demographic questions, perception of COVID-19 health risks, measures of self-efficacy, general stress and parenting stress. Bivariate correlation and multiple regression were conducted. Data were collected from July 13 to August 13, 2020.

Results: The four predictors, along with eight demographic covariates, accounted for 40% of the variance in general stress. Parenting stress and COVID-19 health risks were positively related to general stress, while self-efficacy was negatively associated with general stress.

Conclusions: Results highlight the negative influence of parenting stress on nurses' general stress and the importance of self-efficacy in reducing stress. Findings suggest that support services for nurses should focus not only on work-related stressors but also consider parenting stressors, work-home imbalances and self-efficacy.

KEYWORDS
COVID-19 pandemic, nurses, parenting, self-efficacy, stress

Summary Statement

What is already known about this topic?

- Nurses are experiencing acute stress during the COVID-19 pandemic because of the close proximity in dealing with infected and dying patients.
- Healthcare workers who have childcare obligations are facing more responsibilities at home and are less willing to report to work during a pandemic.

- High self-efficacy among nurses has been found to significantly relate to willingness to work during a pandemic and that lower self-efficacy is related to increased fear in caring for infected patients.

What is already known about this topic?

- This paper adds to the limited research on the effects of parenting stress on nurses. This paper shows that parenting stress does contribute to nurses' overall perceived stress.
- Concerns about the potential risks if nurses themselves were to become infected and worries about the potential risks to family due to the nurses' clinical roles are significantly related to their general stress.
- In the context of the COVID-19 pandemic, self-efficacy can serve as a protective factor against stress for nurses working in the frontlines.

The implications of this paper:

- The COVID-19 pandemic has increased work stress for nurses and contributed to challenges in finding the balance between the increased demands at home and work. To help mitigate stress and support wellbeing of nurses, health care institutions and nurse managers might consider arranging educational parenting support groups, allowing more flexible work hours or self-scheduling, extended rest days, providing free or subsidized childcare and offering professional development opportunities that enhance self-efficacy among nurses.
- Challenges experienced by nurses must be addressed as sustained levels of work-life imbalance may contribute to nursing shortages as nurses succumb to the strain of the stress created by the COVID-19 pandemic.

1 | INTRODUCTION

Nurses are the nation's largest healthcare profession (American Association of Colleges of Nursing (AACN), 2019) and are on the frontline in delivering care to patients during the coronavirus disease 2019 (COVID-19) pandemic. Nurses are experiencing acute stress during the COVID-19 pandemic because of the close proximity in dealing with infected and dying patients (Shahrour & Dardas, 2020). Currently, COVID-19 has led to over 500,000 deaths in the United States (U.S.) (Centers for Disease Control and Prevention (CDC), 2021).

The COVID-19 pandemic has increased stress among an already strained profession of healthcare professionals (Arnetz et al., 2020). One stressor nurses face is the fear of becoming infected and infecting others, including their loved ones (Fernandez et al., 2020; Shahrour & Dardas, 2020). The American Nurses Association (ANA) conducted a nationwide survey of nurses' concerns and experiences during the early phase of the pandemic. More than two-thirds (64%) were concerned for the safety of their family and friends. Providing protection for family members is a priority for healthcare workers, who fear exposure to the virus and transmitting the virus to their loved ones (Arnetz et al., 2020; Fernandez et al., 2020). This concern has resulted in some nurses leaving their families for extended periods of time, in order to self-isolate and protect family members from potential exposure (Fernandez et al., 2020).

Compared to other members of the healthcare profession, nurses not only experience higher levels of anxiety and depression when caring for COVID-19 patients but may also face more challenges and difficulties with family responsibilities and daily activities (Liu et al., 2020). In addition to the fear of infecting family members, research has shown that parents' perception of COVID-19 is associated with increased parenting stress (Chung et al., 2020). Relatedly, research has noted that healthcare workers who have childcare obligations are less willing to report to work during a pandemic (Aoyagi et al., 2015). With childcare centres and school closures, working parents are facing more caregiving responsibilities (Wu & Xu, 2020), and nurses report having concerns related to childcare and other family-related tasks (Arnetz et al., 2020). For nurses, balancing increased demands at home and increased demands at work is challenging and may greatly contribute to additional parenting and generalized stress during the COVID-19 pandemic.

Although parenting is beyond the realm of providing healthcare services, home and work settings can easily influence each other (Edwards & Rothbard, 2000). For example, parenting stress has been positively correlated with turnover intention (Kang & Kim, 2011), suggesting that nurses may choose to leave the profession if

parenting stress escalates. In addition, Bashirian et al. (2019) demonstrated a strong and direct correlation between parental stress and occupational burnout among nurses caring for COVID-19 patients. These findings highlight the importance of recognizing the impact of COVID-19 on nurses and their families and of mitigating the potential nursing shortages that may result.

It is also important to investigate parenting stress as it has been linked to various negative parent and child outcomes. A recent study by Brown et al. (2020) examined the impact of the recent pandemic on perceived parental stress and the potential for child abuse among parents in the U.S. Reported stressors related to COVID-19, along with reports of high anxiety and depressive symptoms, were positively correlated with higher parental perceived stress, while parents' perceived control over the pandemic decreased their perceptions of stress. Furthermore, job loss resulting from the COVID-19 pandemic and the subsequent economic impact has also been correlated to a significant risk for child abuse (Lawson et al., 2020). Although these studies did not specifically include healthcare workers, findings may as well apply to nurses given the levels of stress they experience both at work and at home.

To deal with the stressors of the COVID-19 pandemic, individuals evoke a variety of strategies for managing or alleviating stress and some of these strategies may serve as protective factors for working parents (Brown et al., 2020). Coping strategies are often associated with resilience and less psychological symptoms of distress are approach oriented (e.g., seeking social support or problem-focused strategies) rather than avoidant (e.g., denial or distancing, Holahan et al., 1996; Nagase et al., 2009). Approach-oriented coping, and specifically problem-focused strategies, is more predominant when individuals feel as though they have some locus of control within a given stressful situation (Lazarus & Folkman, 1984). As such, self-efficacy, defined as an individual's 'beliefs about their capabilities to exercise control over events that affect their lives' (Bandura, 1989, p. 1175), is considered an essential characteristic of a successful nursing profession (Boudreaux & Broussard, 2020).

Self-efficacy plays a positive role in the psychological recovery of individuals after trauma (Bosmans et al., 2016). In the context of stressful situations like a pandemic, research has shown that self-efficacy has significant influence on behaviour and various aspects of well-being. Among nurses, previous studies showed that individuals with lower levels of self-efficacy had higher tendencies to experience fear in caring for patients during the severe acute respiratory syndrome (SARS) pandemic (Ho et al., 2005). A meta-analysis on healthcare workers' willingness to work during an influenza pandemic also found that higher confidence in their own knowledge and skills increased their willingness to work (Aoyagi et al., 2015). This is noteworthy given previous research findings that purported the influence of confidence on the degree of self-efficacy experienced by nurses (Van Dyk et al., 2016). Within the context of the COVID-19 pandemic, a recent study showed that compared to studies conducted before the pandemic, nurses in China scored lower in self-efficacy (Xiong et al., 2020). The authors attributed this effect to the novelty of the

virus and the outbreak at the time of data collection. Their findings further showed that self-efficacy was negatively related to anxiety.

1.1 | Conceptual framework

This study was guided by Lazarus and Folkman's Theory of Stress and Coping (Lazarus & Folkman, 1984). The theory identifies stress as the result between the individual and the environment with stressors and how individuals cope with stress be considered jointly to reflect their interdependence in explaining the stress and coping process. Aligned with this theory is that self-efficacy will be associated with positive coping strategies in response to stress and that parenting stress will be positively related to general stress. Uncertainty has been a constant state since the COVID-19 outbreak in the U.S. with nurses at the forefront of navigating this unprecedented time in history. As a result, the potential exists for nurses to perceive lack of control within the workplace, and over the pandemic itself, leading to the use of ineffective or dysfunctional emotion-focused or avoidant coping strategies (Folkman & Lazarus, 1980; Holahan et al., 1996; Lazarus & Folkman, 1984). This perceived lack of control may be applicable to their personal lives as well, specifically related to parental obligations during a time of significant stress at work.

1.2 | Aim of the study

There is research available about effects of traumatic events such as a pandemic. There is limited research, however, on the effects of parenting stress on nurses, and much less in the context of a pandemic. The purpose of the study was to examine the influence of parenting stress, self-efficacy and COVID-19 health risks on general stress among nurses. Following Lazarus and Folkman's Theory of Stress and Coping (Lazarus & Folkman, 1984), we tested the following hypotheses:

> **Hypothesis 1.** There is a significant positive relation between parenting stress and general stress.

> **Hypothesis 2.** There is a significant positive relation between COVID-19 health risks and general stress.

> **Hypothesis 3.** There is a significant negative relation between self-efficacy and general stress.

2 | METHOD

2.1 | Design

This study utilized cross sectional correlational design.

2.2 | Participants

Using purposive sampling, this study included 896 nurses from the Midwest, USA, who had at least one child 18 years of age or younger. The inclusion criteria included practicing licensed practical nurse, registered nurse or advanced practice nurse. The exclusion criteria was nurses who were not currently practicing (e.g., retired) at the time the study was conducted. An estimated sample size was calculated using the rule of thumb of 10 participants per predictor variable (VanVoorhis & Morgan, 2007).

2.3 | Data collection and instruments

A self-administered survey was distributed online among a convenience sample of practicing licensed nurses during the COVID-19 pandemic. Using an email list obtained from one Midwestern state board of nursing, nurses were invited by email to participate in an online survey (QuestionPro Software [QuestionPro Inc., San Francisco, CA, USA]). Survey invitations were also posted on social media. The web-based survey was launched on July 13, 2020, and closed on August 13, 2020. One reminder email was sent to nonresponders after 2 weeks of the initial invitation. Questionnaires with more than 50% missing data were excluded from the analysis.

The survey questions requested sociodemographic information (i.e., income, marital status, highest degree), nurse's clinical role, primary work setting, living geographic location, number of exposure suspected COVID cases (zero to more than 20 cases), perceived COVID direct care preparedness (completely unprepared to very prepared) and self-reported concerns about the potential risk of COVID-19 infection to self and family (extremely worried to not worried at all). In addition, the survey included three instruments: Depression, Anxiety, and Stress Scale (DASS-21), General Self-Efficacy (GSE) and Parental Stress Index (Short revision Q10).

2.3.1 | Depression, anxiety and stress

To investigate psychological distress during the COVID-19 pandemic, we used the Stress subscale of the DASS-21 scale, a 4-point Likert scale. This 21-items scale, developed by Lovibond and Lovibond (1995), measures perceived symptoms of depression, anxiety and stress. Each subscale includes 7 items. The total score on the scale can range from 0 to 42. The higher the score, the greater the severity of emotional symptoms. The alpha for the DASS Stress subscale was .92 in this study.

2.3.2 | Self-efficacy

The General Self-Efficacy (GSE) Scale is a self-report 10-item Likert scale of self-efficacy. The scale uses a four-point Likert scale ranging from 1 (not at all true) to 4 (exactly true) and scores range from 10 to 40. The GSE measures one's ability to deal with difficult situations in different context. Higher GSE scores has been negatively correlated with mental distress such as depression (Chang et al., 2011), anxiety and depression (Zou et al., 2016) job stress and burnout (Wang et al., 2015). Overall Cronbach's alphas range from .76–.90 (Schwarzer & Luszczynska, 2007). Alpha for this study was .90.

2.3.3 | Parenting stress

The Parental Stress Index (Short version-10Q) was used to measure parenting stress with the results reported at the family level. This 10-item subscale used a five-point Likert scale that ranged from 1 ('strong disagree') to 5 ('strongly agree'). Due to the public distancing requirement inherent within the COVID pandemic, one item ('When I go to a party, I expect not to enjoy myself') from the original Parental Stress Index was not included in this study's survey, resulting in the total summed scores ranging from 10 to 39. Higher subscale scores indicate greater subjective parental role distress (Agazio & Buckley, 2012). Acceptable reliability with the 11-item Parental Distress Scale—Short Version 11 (.85 test–retest and Cronbach alpha .86) was reported by the National Child Traumatic Stress Network (2017) and the Cronbach alpha for the present study was .90.

2.4 | Data analysis

To answer the research questions, we first conducted bivariate correlations on the variables of interest. Next, multiple regression analysis was conducted to examine the relations of the four main predictors on the dependent variable, general stress. Given the differences in the coronavirus infection and hospitalization rates across the U.S. at the time of data collection, we also conducted a series of t-tests to check if there were differences in the variables in terms of geographic location (urban and rural areas). Results showed no significant difference; thus, all participant responses were analysed as one group, using SPSS v. 26. The level of statistical significance was set at $P < 0.05$.

2.5 | Ethical considerations

The study was reviewed and approved by the university's human research ethics committee. Participation was voluntary and informed consent was provided to all participants prior to providing survey access.

3 | RESULTS

The participants comprised of 84% female and 8% male nurses, with another 1% preferring not to disclose their gender and 7% missing data. In terms of age, the largest share (25%) of participants fell under the age group of 30–39, followed by 22% falling under the

40–49 years old group. Table 1 presents the descriptive statistics of the other demographic information and variables in the study.

Table 2 presents the correlations among the variables. The four main independent variables were significantly correlated with general stress, all in the expected direction.

Table 3 shows the unstandardized and standardized coefficients, standard error estimates, and _p_ values of the estimates in the regression model. Along with the eight control variables, the four main predictors accounted for 39.2% of the variance in the nurses' general stress, and the model was statistically significant, $F_{(12,149)} = 7.998$, $p < .001$. Overall, statistical results support our hypotheses. First, worries about the potential risks of contracting COVID-19 are related to higher levels of stress. Second, self-efficacy is negatively related to stress, such that nurses with higher self-efficacy reported lower levels of stress. Finally, parenting stress is positively related to general stress, meaning, nurses who reported higher levels of parenting stress also reported higher levels of general stress. Two variables were approaching significance: (1) clinical role ($p = .055$) and (2) worries about the potential risks to family and loved ones due to the participants' clinical role ($p = .057$), with LPNs and those with higher levels of worries reporting higher levels of stress.

To further investigate the role of self-efficacy on general stress, we included three possible interactions among the predictors in the regression model: self-efficacy × parenting stress, self-efficacy × worried about COVID-19 risks to self and self-efficacy × worried about COVID-19 risks to family. However, none of these interaction effects were significant. Thus, they were dropped from the final model.

4 | DISCUSSION

The purpose of the study was to examine the influence of parenting stress, self-efficacy and COVID-19 health risks on general stress among nurses in rural and urban communities in the Midwest. In general, results lend support to Lazarus and Folkman's Theory of Stress and Coping (Lazarus & Folkman, 1984). More specifically, our findings denote a significant relationship between parenting stress and generalized stress among nurses, within the context of the COVID-19 pandemic. Nurses with greater parenting stress reported higher overall stress. This is supported by emerging COVID-19 literature that has examined the disruption of childcare and education services during the pandemic and the additional challenges these disruptions pose for working parents (Wu & Xu, 2020), including nurses (Arnetz et al., 2020). Given the established connection between parenting stress, mental health (Brown et al., 2020), professional turnover (Kang & Kim, 2011), and burnout among nurses (Bashirian et al., 2020), it is critically important that interventions not only address work-place related stressors, but also provide strategies and support for mitigating parenting stress. Providing additional work-place programmes and resources that attune to the mental health needs and specific stressors of healthcare professionals is vital to preventing further

TABLE 1 Descriptive statistics of the variables

Variable	M (SD) or %
Clinical role	
LPN	9.0%
RN	74.8%
Work setting	
Primary	22.3%
Acute	49.3%
Marital status	
Single	28.2%
Married	64.3%
Educational attainment	
LPN	8.7%
Associate degree	18.8%
Bachelor's degree	49.8%
Master's	12.1%
Doctoral	1.9%
Other	1.6%
Household income	
<$20,000	.7%
$20,000–34,999	2.5%
$35,000–49,999	9.3%
$50,000–74,999	20.8%
$75,000–99,999	19.4%
Over $100,000	33.6%
Geographical location	
Urban	57.7%
Rural	37.5%
Number of suspected cases	
0	27.0%
1–5	24.0%
6–10	9.3%
11–20	4.8%
More than 20	11.4%
Preparedness	
Completely unprepared	5.5%
Somewhat unprepared	12.4%
Somewhat prepared	36.6%
Very prepared	22.0%
Worried about COVID-19 risks to self	2.66 (.787)
Worried about COVID-19 risks to family	2.95 (.824)
Self-efficacy	32.13 (4.60)
Parenting stress	10.62 (4.13)
General stress	8.18 (8.87)

Note. Values do not add up to 100% due to missing responses; some categories which have very small frequency count were also excluded create dichotomous categorical variables to be entered in the regression model.

TABLE 2 Correlations among variables in the study

Predictors	1	2	3	4	5	6	7	8	9	10	11	12	13
1. General stress	—												
2. Clinical role	-.047	—											
3. Work setting	.042	.310**	—										
4. Marital status	-.084*	.090*	-.071	—									
5. Educational attainment	-.092*	.637**	.162**	.121**	—								
6. Household income	-.096*	.230**	-.051	.508**	.278**	—							
7. Geographical location	.048	-.053	-.1038	-.022	-.081*	-.036	—						
8. Number of suspected cases	-.097*	-.003	.032	.010	.051	.002	-.016	—					
9. Preparedness	-.051	.062	.054	-.002	.030	-.060	-.049	.155**	—				
10. Worried about COVID-19 risks to self	.363**	-.032	.097*	-.006	-.068	-.032	.018	.042	.039	—			
11. Worried about COVID-19 risks to family	.372**	-.060	.118**	-.003	-.080*	-.070	.030	.021	.050	.669**	—		
12. Self-efficacy	-.265**	.058	-.047	.071	.110**	.174**	-.032	-.020	.035	-.207**	-.187**	—	
13. Parenting stress	.324**	.081	.154*	-.048	-.005	-.001	-.082	.027	.077	.159**	.134*	-.262**	—

Note. The following variables were dummy-coded: clinical role (0 = LPN; 1 = RN); work setting (0 = primary; 1 = acute); geographical location (0 = urban; 1 = rural).

* $p < .05$
** $p < .01$.

TABLE 3 Regression coefficients (unstandardized and standardized), standard error estimates and probability (*p*) values for the regression coefficients in the regression model

Predictors	B	β	SE	p
(Constant)	−.548		.792	.490
Clinical role	−.659	−.199	.341	.055
Work setting	−.020	−.009	.154	.899
Marital status	−.079	−.028	.208	.706
Educational attainment	.150	.111	.138	.278
Household income	.102	.120	.065	.119
Geographical location	.185	.089	.140	.189
Number of suspected cases	−.070	−.103	.046	.128
Preparedness	.003	.002	.078	.971
Worried about COVID-19 risks to self	.391	.293	.124	.002
Worried about COVID-19 risks to family	.227	.178	.118	.057
Self-efficacy	−.049	−.189	.018	.007
Parenting stress	.047	.195	.017	.017

Note. The following variables were dummy-coded: clinical role (0 = LPN; 1 = RN); work setting (0 = primary; 1 = acute); geographical location (0 = urban; 1 = rural).

shortages within the healthcare sector that only exacerbate the public health crisis.

Our findings also indicate a negative association between self-efficacy and general stress among nurses. Specifically, nurses with greater self-efficacy reported less overall stress. This is supported by Xiong et al. (2020) findings that lower self-efficacy among nurses is associated with feelings of anxiety during the COVID-19 pandemic. Coping self-efficacy, in particular, has been found to significantly predict psychological stress among nurses during the pandemic and was identified as a protective factor for nurses experiencing acute stress related to COVID-19 (Shahrour & Dardas, 2020). Existing literature has further noted that reduced self-efficacy is connected with concern for treating patients (Ho et al., 2005) and willingness to work during a pandemic (Aoyagi et al., 2015). Broader nursing literature has highlighted positive associations between self-efficacy and engaging in positive nursing practices (Boudreaux & Broussard, 2020; Gilissen et al., 2020). Our findings add to existing literature by suggesting that self-efficacy may help support mental health and well-being among nurses during the COVID-19 pandemic. With regard to the relationship between self-efficacy and general stress, we did not find a significant interaction with parenting stress or COVID-19 health concerns. Additional attention is needed to examine how self-efficacy among nurses can be strengthened within the context of the pandemic to reduce stress and enhance overall well-being.

Lastly, results indicated that concern for personally contracting COVID-19 while at work is related to higher levels of stress among nurses. This is consistent with existing literature that has highlighted the prevalence of personal health concerns among healthcare professionals (Fernandez et al., 2020; Shahrour & Dardas, 2020) and identified fear of being infected as a mental health risk factor during the pandemic (Muller et al., 2020). Additional research is needed to further examine how nurses' perceptions of COVID-19 health risks and stress are specifically related to the availability of personal protective equipment, level of community spread and/or preexisting mental health concerns that may include generalized anxiety.

In addition to the research questions, present results also showed that nurses' clinical roles' influence on general stress, with LPNs having higher tendencies to experience greater levels of stress compared to RNs. It is plausible that the stress experienced by LPNs may be due to having less education and potential resources on the effects of stress, compared to RNs (Stansfeld et al., 1999; authors withheld, under review). With this finding, it may be ideal for training programmes to target the specific needs and experiences of LPNs in order to effectively reduce stress that may be unique to their role and background.

4.1 | Limitations

Although our findings are supported by and contribute to existing research, some limitations should be acknowledged. First, nurses were surveyed at a single time-point approximately 5 months into the world health crisis. Our findings do not reflect changes in COVID-19 health concerns, stress or self-efficacy that may have occurred throughout different phases of the pandemic. Our cross-sectional data also does not allow us to conclude the direction of effects between these variables and general stress. In addition, the study population focused only on nurses in the Midwest, thus results are not generalizable to the broader U.S. nursing population. Lastly, we did not explore or examine aspects of parenting that nurses particularly find stressful. Future research should investigate this line of inquiry to inform nursing managements' support services and work policies.

5 | CONCLUSION

The results of this study highlight the relationship between parenting stress, self-efficacy, COVID-19 health concerns and general stress

among nurses during the global pandemic. Although the topics of stress and mental well-being among nurses have been given attention in research, empirical studies on nurses' parenting stress remains understudied. Knowing that parenting stress contributes to nurses' general stress, work policies and support services designed to address nurses' mental health should focus not only on work-related stressors, but also take into account family life and parenting as these contribute to overall well-being among nurses. Nursing management can help assist nurses in managing their experienced parenting and general stress. Nursing managers should consider arranging educational parenting support groups within the healthcare institution. The presence of such support groups can serve as a valuable resource for parents as this can help increase their perceived parental competence and their overall wellbeing (Asscher et al., 2008). Work policies should also consider allowing flexible work hours and extended rest days nurses, and if feasible, provide free or subsidized childcare within the facility's vicinity. In addition, nurse managers can implement self-scheduling programmes to improve work-life balance and improve retention of nurses (Russell et al., 2012).

Further, effective policies and programming should seek to increase nurses' self-efficacy to enhance well-being and one's perceived ability to cope with COVID-19 related stressors. For example, management should consider providing improved training and professional development practices to increase nurses' confidence in their skills and in managing stressful situations. Supervisors and managers should also make sure to provide constructive feedback and apply appropriate reinforcements as these can positively influence self-efficacy (Ünal, 2012).

To help reduce concerns related to personally contracting COVID-19 while at work, health institutions should ensure that safety guidelines are enforced and that precautionary behaviours are strictly practiced in the facility. Nurses should also be assured to receive complete personal protective equipment such that nurses will feel safe and not compromised. Appropriately responding to nurses' sustained levels of work-life imbalance may help avoid nurses succumbing to the strain created by the COVID-19 pandemic, and may, in turn, curb nursing shortages.

CONFLICT OF INTEREST

The authors have no conflict of interest or financial support to declare.

AUTHORSHIP STATEMENT

All the authors all listed authors meet the authorship criteria, and all authors are in agreement with the final version of the manuscript.

AG conceived the questionnaire design, data collection, conception and design, analysis and interpretation of data and drafting the article. CC was responsible for questionnaire design, data collection, conception and design, interpretation of data and drafting the article. RB was responsible for questionnaire design, data collection, conception and design, interpretation of data and drafting the article. PDR conceived the questionnaire design, data collection, interpretation of data and drafting the article. BP conceived the questionnaire design, data collection and drafting the article. PC was responsible for questionnaire design, data collection and drafting the article.

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