



Psychometric Properties of the New Working Parent Burnout Scale



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Introduction: Parental burnout is an underrecognized condition with adverse consequences for parents and children. The objective of this study was to determine the psychometric properties of a new scale, the Working Parent Burnout Scale, and a concurrent one-item assessment.

Method: A cross-sectional survey was conducted. The sample included parents ($N = 1,285$) living with children < 18 years. Content, face, construct, and predictive validity and reliability were established.

Results: Cronbach α was 0.90 with the elimination of item four on the scale. All factor loadings were > 0.40 . The one-factor model was supported by confirmatory factor analysis. The Pearson r correlation was 0.59 for the total score on the original 10-item burnout scale (item 4 excluded) and the one-item assessment.

Discussion: These are the first known scales to measure working parent burnout. By better identifying parental burnout, preventive and interventional approaches can be initiated to enhance parent and child outcomes. *J Pediatr Health Care.* (2022) 36, 540–548

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KEY WORDS

Burnout, parenting, child mental health, scale, parental burnout

INTRODUCTION

Parental burnout, defined as parenting stress that severely and chronically overwhelms a parents' resources to cope with stress, is a prevalent problem for families worldwide. It has been shown to have adverse effects on both parents and children (Mikolajczak & Roskam, 2020). Disruptions in caregiving and role responsibilities, including homeschooling children during the COVID-19 pandemic, have further contributed to the stressors and burnout experienced by parents, especially for those who work. Ninety-one percent of adults have reported that their lives have changed since the beginning of the pandemic, whereas almost half (44%) have said that their lives have changed in major ways (Pew Research Center, 2020). In addition to the added stressors of disrupted childcare and school schedules, many families face additional hardships, including job loss, income loss, food insecurity, and illness (Gassman-Pines, Ananat, & Fitz-Henley, 2020; Patrick et al., 2020). Both children and parents report worsening and persistent mental and behavioral health conditions with increases in health care claims for mental health disorders (Czeisler et al., 2021; Patrick et al., 2020).

Parental burnout results from a chronic imbalance of risks over resources (Mikolajczak & Roskam, 2018; Mikolajczak & Roskam, 2020). Symptoms of parental stress can be variable and often include reported feelings of exhaustion, emotional detachment from their children, loss of joy/pleasure in parenting, and a feeling that they are not the parent they once were and want to be (Mikolajczak & Roskam, 2020; Roskam, Brianda, & Mikolajczak, 2018). Similar to job burnout, parental burnout can also include a higher likelihood of addiction and sleep problems, increased spousal or significant other conflicts, and escape and suicidal ideation (Blanchard & Heeren, 2020; Mikolajczak, Brianda,

Avalosse, & Roskam, 2018). Suicidal and escape ideations have been found to occur more frequently in parental burnout than in job burnout or even depression (Mikolajczak, Gross, & Roskam, 2019).

Parental burnout also has been shown to have a specific adverse effect on child-related outcomes, including a higher likelihood of neglect and violence (Griffith, 2022; Mikolajczak et al., 2018). In particular, parents who work full-time report higher levels of work-family conflict (Cho, 2018; McLoyd, Toyokawa, & Kaplan, 2008; Moreira, Fonseca, Caiado, & Canavarró, 2019). Work-family conflict occurs when a parent's limited resources of time and energy are overtaxed with competing demands and obligations from both family and work. This work-family interface is so significant that it is considered a powerful social determinant of mental health in both parents and children (Moreira et al., 2019). Work-family conflict can adversely affect work, nonwork, and personal outcomes. It has been linked to increased job turnover, decreased job satisfaction, and organizational commitment (Allen, Herst, Bruck, & Sutton, 2000). It has been shown to lead to symptoms of burnout in parents, including fatigue, emotional distress, and emotional withdrawal from their children. Parental burnout also has been linked to behavioral problems and deterioration of mental health in children (Cho, 2018; McLoyd et al., 2008; Moreira et al., 2019).

Parental burnout symptoms are different from mental health disorders. An article by Sánchez-Rodríguez and colleagues argues that parental burnout, depression and anxiety are distinct disorders (Sánchez-Rodríguez, Orsini, Laffaquièrre, Callahan, & Séjourné, 2019). Therefore, separately identifying each of these disorders in parents is imperative to improving parental and child outcomes.

There are two widely used, validated parental burnout scales available—the Parental Burnout Inventory and the Parental Burnout Assessment (PBA; Roskam, Raes, & Mikolajczak, 2017; Roskam et al., 2018). However, to our knowledge, there has not been a scale developed to specifically measure working parent burnout. The 22-item Parental Burnout Inventory has three subscales: emotional exhaustion, emotional distancing, and loss of parental efficiency, with emotional distancing being an especially potent determinant of activating all other facets of parental burnout. These subscales together calculate a global score. Cronbach α is 0.91 for the global score and 0.92 (emotional exhaustion), 0.89 (emotional distancing), 0.85 (loss of parental efficacy) for the three subscales. The PBA emphasizes the loss of pleasure in parenting and in being with their children and less emphasis on parental efficiency (Roskam et al., 2017). The 23-item PBA has been validated across cultures and countries. Internal consistency for the total scale was excellent (Cronbach $\alpha = 0.97$ – 0.98) and for the subscales from adequate (≥ 0.70) to excellent (≥ 0.90 ; Aunola, Sorkkila, & Tolvanen, 2020; Gannagé, Besson, Harfouche, Roskam, & Mikolajczak, 2020; Roskam et al., 2021).

The objective of this study was to determine the psychometric properties (i.e., validity and reliability) of a newly developed Working Parent Burnout Scale (WPBS) and assess its convergent validity with a 1-item assessment.

METHODS

Design

An online anonymous cross-sectional survey was the design used for this study. The 11-item WPBS and 1-item assessment were incorporated as part of a longer online survey that included questions about demographics, social constructs, mental health, lifestyle behaviors, coping mechanisms, and parenting practices. Exempt status was obtained by the authors' Institutional Review Board.

Population and Recruitment

The participant sample included parents who had at least one child aged ≤ 18 years living with them when the survey was completed. Participants were recruited via e-mail, online ads, and social media that included a link to the online survey. Most participants were employees of a large public land-grant university in the midwest, including an academic medical center. All participants provided online consent before participation in the study. The survey was self-reported, voluntary, and anonymous. Responses to the survey were collected between January 19, 2021 and April 28, 2021.

Instrumentation

Along with demographic data and questions about healthy lifestyle behaviors, coping strategies, and parenting practices, several valid and reliable instruments were embedded in the survey.

Working Parent Burnout Scale

The WPBS was created by a thorough review of the literature and input from an expert in pediatrics, parenting, and scale development. The scale contains 11 Likert-scale items (see Supplementary Box). Participants respond to each item on a scale from 0 (not at all) to 4 (very much so). Face, content, and construct validity were established through the psychometric analyses. A one-item assessment also was created to determine if it could be used as a very brief screen for working parent burnout (see Supplementary Data).

Patient Health Questionnaire-2

The Patient Health Questionnaire-2 (PHQ-2) is a well-known valid, and reliable scale that screens for depressive symptoms. A two-item instrument asks participants the following questions: how often have you been bothered by any of the following problems: (1) little interest or pleasure in doing things; or (2) feeling down, depressed, or hopeless? The instrument has good sensitivity (0.79) and specificity (0.86) for detecting any depressive disorder (Löwe, Kroenke, & Gräfe, 2005).

Generalized Anxiety Disorder-2 (GAD-2)

The Generalized Anxiety Disorder-2 (GAD-2) is a two-item instrument in which participants rate their anxiety levels by answering the following questions: over the last 2 weeks, how often have you been bothered by the following problems: (1) feeling nervous, anxious, or on edge; or (2) not being able to stop or control worrying? The psychometric properties of the instrument have been tested in a variety of populations and settings across time. The literature demonstrates good sensitivity (0.76) and specificity (0.81) for generalized anxiety disorder (Plummer, Manea, Trepel, & McMillan, 2016).

Statistical Analysis

Descriptive statistics were used to summarize sample characteristics and the distributions of parent burnout items. Internal consistency was first assessed with a Cronbach α . Exploratory factor analysis (EFA) with oblimin rotation was conducted to explore the latent structure underlying the 11-item parent burnout scale and exclude items that any potential factor models could not explain. The factor structure derived from the EFA was examined by confirmatory factor analysis (CFA). Comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used to evaluate the model fit. A CFI > 0.95, a TLI > 0.90, an RMSEA < 0.08 and an SRMR < 0.05 were considered acceptable. The total score of the original burnout scale and the fitted score in the CFA model were correlated with the 1-item WPBS by Pearson's correlation. Pearson correlation was checked among the total score of parent burnout items, PHQ-2 score for depression, and GAD-2 score for anxiety to verify the predictive validity. All the statistical analyses were conducted in R 4.0.4.

RESULTS

Sample Characteristics

The survey was completed by 1,285 parents. Most of the parents were aged 30–39 years (48.3%) or 40–49 years (38.8%), White (87.9%), female (87.7%), in their first marriage (75.3%), and the biological parents to at least one of their children (95.3%). Eighty-three percent worked full time, 46.1% from home, and 36.9% in person. Most of the parents had one or two children (35% and 46.2%), and most (52.4%) had no children aged < 5 years. Sixty-five percent reported concerning symptoms of burnout (≥ 3) on the 1-item scale. Sample characteristics are detailed in Table 1.

Face Validity

Eight parents (four fathers and four mothers), who work in full-time positions, evaluated the 11-item WPBS and the 1-item assessment for face validity. They were asked the following questions about each of the individual items/questions on the scale: (1) Does the item tap working parental burnout? Why or why not?; and (2) Is the item clearly

TABLE 1. Survey sample characteristics (N = 1,285)

Characteristics	n (%) ^a
Age, years	
< 30	55 (4.3%)
30–39	620 (48.3%)
40–49	498 (38.8%)
≥ 50	111 (8.6%)
Race/ethnicity	
Black	73 (5.7%)
White	1,130 (87.9%)
Other	82 (6.4%)
Sex	
Female only	1,126 (87.7%)
Male only	148 (11.5%)
Other	10 (0.8%)
Marital status	
Single	70 (5.5%)
Married, first time	967 (75.3%)
Married, second time or more	90 (7%)
Separated	18 (1.4%)
Divorced	83 (6.5%)
Single but live with a significant other	56 (4.4%)
Biological parent	
No	61 (4.7%)
Yes	1,224 (95.3%)
Work status	
Full-time stay at home	17 (1.3%)
Work from home part-time	39 (3%)
Work in-person part-time	64 (5%)
Work from home full time	592 (46.1%)
Work in-person full time	474 (36.9%)
Other	99 (7.7%)
No. of children under the age of 18 (recoded)	
1	448 (35%)
2	592 (46.2%)
≥ 3	240 (18.8%)
No. of children under the age of 5 (recoded)	
0	671 (52.4%)
1	429 (33.5%)
≥ 2	181 (14.1%)
Burnout (1 item scale)	
1	58 (4.5%)
2	393 (30.6%)
3	601 (46.8%)
4	159 (12.4%)
5	74 (5.8%)

^aThe percentages are based on nonmissing values.

written? Why or why not? If not, how would you write the item more clearly?

Suggestions and modifications were incorporated into each item to decrease ambiguity and ensure content accurately depicted parental burnout in the working parent.

Content Validity

Content validity was then established by eight expert pediatric clinicians who evaluated the 11-item WPBS and the 1-item assessment. The same questions as above were posed to the clinicians. One question was eliminated because of the

feedback. Almost all the questions were slightly modified to improve clarity. Three of the questions were flipped to incorporate reverse scoring and improve results.

Exploratory Factor Analysis

The working parent burnout items had mean scores ranging from 0.87 for item 5 (I find joy in parenting my children [reversed]) to 2.53 for item 10 (I feel overwhelmed trying to balance my job and parenting responsibilities). The scree plot suggested a one- or two-factor model with two eigenvalues > 1 (see Figure 1). Both the one-factor and the two-factor models were explored. In both models, item 4 (I am able to take breaks for self-care [reversed]) was not well explained (factor loading < 0.4); thus, it was excluded from the following analysis. The EFA was reconducted with item 4 excluded, and the one-factor model was found to be satisfactory because all factor loadings were > 0.4 (see Table 2). Therefore, the one-factor model was retained for CFA.

Internal Reliability

Item 4 (I am able to take breaks for self-care), item 5 (I find joy in parenting my children), and item 11 (I am doing a good job being a parent) were negatively correlated with the total score of the 11-item parent burnout scale, so they were reversed scored (0 = 4, 1 = 3, 2 = 2, 3 = 1, and 4 = 0). The calculated Cronbach α was 0.89, indicating good internal consistency reliability. The deletion of item 4 resulted in a Cronbach α of 0.90.

Confirmatory Factor Analysis

Figure 2 presents the fitted model from CFA. The model included correlated items: item 1 (I get/feel easily irritated with my children) and item 9 (I lose my temper easily with

my children); item 2 (That you are not the good parent that you used to be to your children) and item 8 (Parenting my children is stressful); item 5 (I find joy in parenting my children [reversed]) and item 11 (I am doing a good job being a parent [reversed]); and item 6 (I have guilt about being a working parent, which affects how I parent my children), item 7 (I feel like I am in survival mode as a parent), and item 10 (I feel overwhelmed trying to balance my job and parenting responsibilities). The factor loadings ranged from 0.46 to 0.85. The results indicated a good model fit (CFI = 0.966; TLI = 0.947; RMSEA = 0.079; and SRMR = 0.037). The Pearson correlation between the fitted score and the 1-item parent burnout scale (i.e., name the item) was 0.53, whereas the correlation was 0.59 for the total score of the original 10-item burnout scale (item 4 excluded) and the 1-item burnout scale.

Predictive Validity

The Pearson's correlation was checked for the total score of the 10-item parent burnout scale (item 4 excluded), PHQ-2 score for depression, and GAD-2 score for anxiety (see Table 3). The burnout scale had moderate correlations with depression ($r = 0.45$) and anxiety ($r = 0.47$).

DISCUSSION

Parental burnout is a prevalent problem with significant consequences for both parents and children, including violent and neglectful behavior toward one's children (Blanchard & Heeren, 2020; Griffith, 2022; Mikolajczak et al., 2018). Working parents have unique situations that can further exacerbate stress, increase work-family conflict, and put them at higher risk for parental burnout (Allen et al., 2000; Cho, 2018; Lebert-Charron, Dorard, Boujut, & Wendland,

FIGURE 1. Scree plot before and after excluding item 4

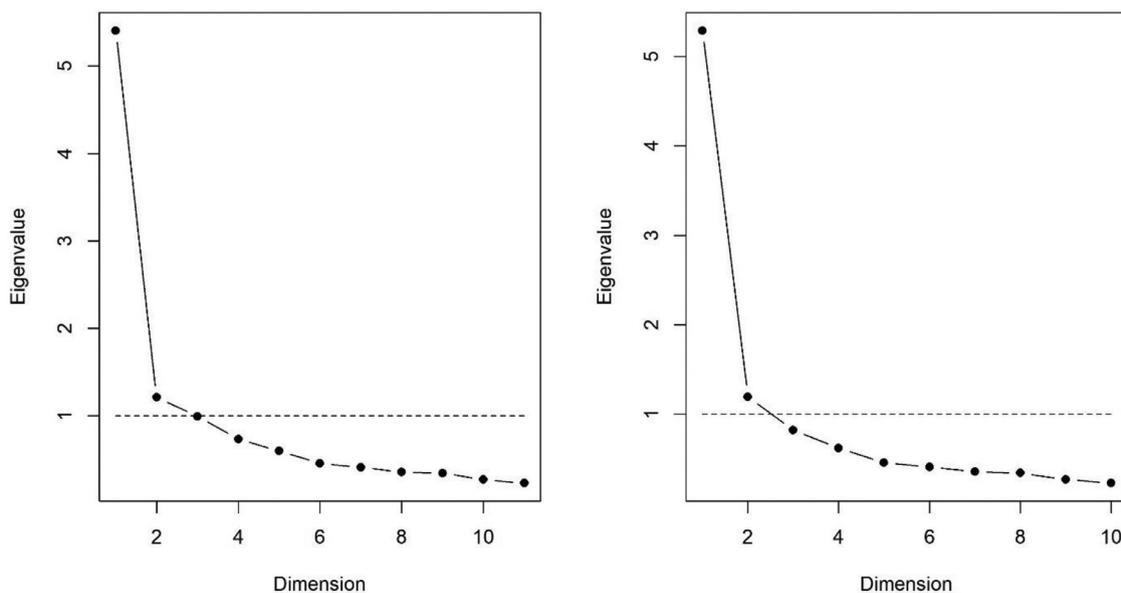
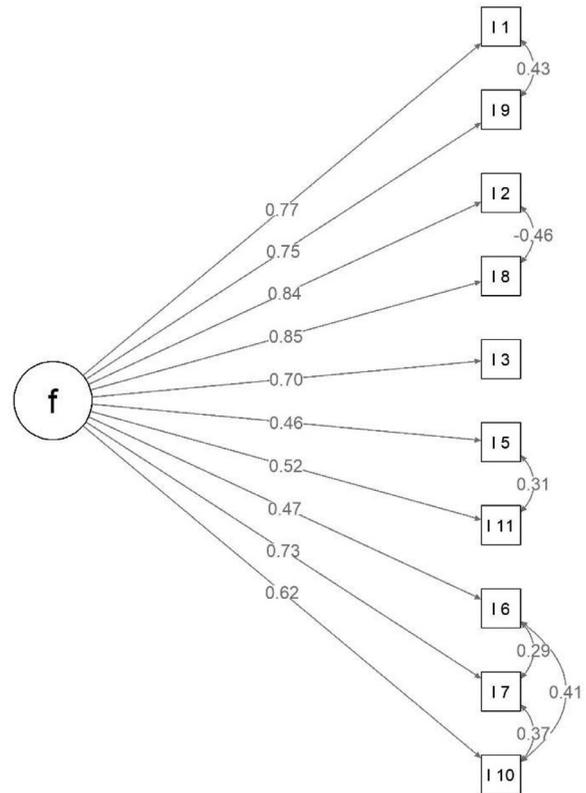


TABLE 2. Factor loadings from exploratory factor analysis

Item and label	Mean ± SD	Item 4 included			Item 4 excluded		
		Two-factor model			Two-factor model		
		One-factor model	Factor 1	Factor 2	One-factor model	Factor 1	Factor 2
Item 1: I get/feel easily irritated with my children	2.00 ± 1.19	0.78	0.82	-0.01	0.79	0.81	0.01
Item 2: I feel that I am not the good parent that I used to be to my children	1.78 ± 1.40	0.80	0.61	0.26	0.81	0.62	0.25
Item 3: I wake up exhausted at the thought of another day with my children	1.19 ± 1.29	0.70	0.68	0.06	0.70	0.69	0.04
Item 4: I am able to take breaks for self-care (reversed)	2.35 ± 1.20	0.32	0.11	0.27	NA	NA	NA
Item 5: I find joy in parenting my children (reversed)	0.87 ± 0.98	0.48	0.68	-0.20	0.48	0.70	-0.23
Item 6: I have guilt about being a working parent, which affects how I parent my children	2.25 ± 1.42	0.52	-0.11	0.79	0.51	-0.09	0.79
Item 7: I feel like I am in survival mode as a parent	2.25 ± 1.41	0.77	0.30	0.60	0.76	0.33	0.57
Item 8: parenting my children is stressful	2.16 ± 1.19	0.79	0.63	0.22	0.79	0.63	0.22
Item 9: I lose my temper easily with my children	1.49 ± 1.19	0.77	0.83	-0.03	0.77	0.82	-0.01
Item 10: I feel overwhelmed trying to balance my job and parenting responsibilities	2.53 ± 1.34	0.68	0.11	0.73	0.68	0.14	0.71
Item 11: I am doing a good job being a parent (reversed)	1.43 ± 0.99	0.54	0.53	0.04	0.54	0.55	0.00

Note. NA, not applicable.

FIGURE 2. Diagram from confirmatory factor analysis



2018; McLoyd et al., 2008; Moreira et al., 2019). Parents who work have different needs, may require different resources, and may exhibit different symptoms of burnout from those who do not work. Although occasional symptoms of parental burnout can be experienced by any parent, the number and frequency of burnout symptoms, determine the severity of burnout, which can be directly linked to adverse outcomes and lifelong repercussions (Gilbert et al., 2009; Mikolajczak & Roskam, 2020; Mikolajczak et al., 2018).

Parental burnout is preventable with certain parental coping skills and resources. When family/work conflict improves, there is an improvement in children’s mental health (Moreira et al., 2019). Individual and societal interventions have shown promise in treating parental burnout. Having trained clinicians intentionally work with parents to help restore the balance between their parental stressors and their available resources has shown to be effective in decreasing parental burnout. Teaching parents how to better cope with parental stress and burnout through resiliency building interventions, such as cognitive behavioral skills building, positive reframing, mindfulness, yoga, and gratitude, are protective in preventing and decreasing burnout, depression, and stress in other populations so they may translate to the working parent population (Bisht, Chawla, Tolahunase, Mishra, & Dada, 2019; Cunha, Pellanda, &

TABLE 3. Pearson's correlation among the total score of the 10-item parent burnout scale, depression Patient Health Questionnaire-2 score, and anxiety Generalized Anxiety Disorder-2 score

Variables	Mean	SD	Burnout	Depression	Anxiety
Burnout	17.95	9.02	1.00	0.45	0.47
Depression	1.38	1.47	0.45	1.00	0.60
Anxiety	2.13	1.62	0.47	0.60	1.00

Reppold, 2019; Cocchiara et al., 2019; Dalgaard et al., 2017a; Dalgaard et al., 2017b; Glasscock, Carstensen, & Dalgaard, 2018; Grensman et al., 2018; La Torre et al., 2020; Rayan & Ahmad, 2018; Suleiman-Martos et al., 2020; Tement, Ketiš, Mirošević, & Selič-Zupančič, 2021; Venning et al., 2021). Creating an open listening environment, similar to a support group, for parents to discuss parenting with other parents also has demonstrated the ability to decrease the frequency of neglectful and violent behaviors toward their children over time (Chen & Chan, 2016; Munns, Watts, Hegney, & Walker, 2016; Thorslund, Alfredsson, & Axberg, 2019). Identifying and treating co-occurring mental health disorders, including depression and anxiety, in parents can also help with improving parent-child relationships, improving parental emotional regulation, improving mental and behavioral problems in children, and decreasing parents' child-directed hostility and negativity (Bellina et al., 2020; Coiro, Riley, Broitman, & Miranda, 2012; Dougherty, Tolep, Smith, & Rose, 2013; Eckshtain, Kuppens, & Weisz, 2017; Everett, Martin, & Zalewski, 2021; Garber, Ciesla, McCauley, Diamond, & Schloretd, 2011; Merwin, Barrios, Smith, Lemay, & Dougherty, 2018; Merwin, Leppert, Smith, & Dougherty, 2017; Weijers, van Steensel, & Bögels, 2018).

Societal and population interventions also can play an important role in reducing parental stress and burnout. Western countries, particularly those with an individualistic culture, have a noticeably higher prevalence and mean level of parental burnout than countries that value the needs of the group as a whole over the individual. EuroAmerican countries make up the overwhelming majority of countries that value the individualistic culture, which may foster the demand for perfection in parenting (Roskam et al., 2021). Parents must deal with academic performance testing, social comparisons, and multiple extracurricular activities. Many parents in western societies well-intentionally seek to optimize the development of their children by providing their children with multiple opportunities, often creating an environment in which children are rushed to activity after activity with little downtime to have free and outdoor play, which can be very detrimental to child mental health (Bergen, 2018; Brown, Nobiling, Teufel, & Birch, 2011; Mygind et al., 2019; Schiffrin, Godfrey, Liss, & Erchull, 2015; Whitebread, 2017). Creating a society that places less value and stress on parents and children to perform would be preferable, but these types of societal changes often take time and are difficult to achieve. A more feasible option is to educate parents about the importance of free play and time management (sharing rides, avoiding overscheduling extracurricular activities, etc.).

Providing a greater number of available and low-cost resources and support for parents at the local, state, and national level is also a feasible population intervention. Making evidence-based parenting programs universally free and available is an easy and cost-effective intervention that could improve parent and child outcomes (Guastafarro & Lutzker, 2022; Gubbels, van der Put, & Assink, 2019; Hurlburt, Nguyen, Reid, Webster-Stratton, & Zhang, 2013).

However, many of the interventions listed above did not specifically target working parents. Employers may be an important conduit for preventing and addressing parental burnout in the working parent population. Corporate policies that are supportive of a work-life balance, flexible work arrangements, and offer childcare services could help to mitigate some of the parental stress associated with being a working parent (Almeida & Davis, 2011; Borgh, Eek, Wagman, & Håkansson, 2018; Eek & Axmon, 2013; Eurofund, 2016; Moreira et al., 2019; Riedmann, Bielski, Szczurowska, & Wagner, 2006; Thévenon, Adema, & Clarke, 2016). Flexible work schedules, in particular, are protective in parenting by promoting a better work-life balance. Parents with flexible work schedules have improved self-regulation when interacting with their children, report a better relationship with their children, and can avoid missing important moments in their children's lives (Almeida & Davis, 2011; Borgh et al., 2018; Eek & Axmon, 2013; Eurofound, 2016; Moreira et al., 2019; Riedmann et al., 2006; Thévenon, Adema, & Clarke, 2016). Corporate wellness programs also can play a role in preventing and addressing parental stress and burnout by offering educational programs on positive parenting practices and support groups for parents to connect with other working parents. Additional research is needed in these areas to determine other interventions and strategies to prevent parental burnout in this population and how to best support parents when their resources are limited.

In addition to corporate interventions, more pediatric clinicians need to be aware of parental burnout, the signs and risk factors, and their significance to child and adolescent outcomes. Clinicians should consider conducting universal screening for parental burnout when resources/interventions can be provided in the clinical setting. Using the WPBS scale or the 1-item assessment in clinical practice could help identify parental burnout or the early stages of parental burnout in working parents so that early interventions can be provided. Positive screenings may also help predict the likelihood of parental depression and anxiety. Early screening and intervention can ultimately improve health and developmental outcomes for both parents and children.

Limitations

Although we recommend using the WPBS, it is not without limitations. Most of the sampled population are employees from a large university and academic medical institution, so the sample consists of mostly White females with a higher income level (80.8% reported a total household income level \geq \$71,000). Another limitation is that the survey data were entered by individual participants, causing the potential risk for inaccurate responses and incomplete responses in data collection. Cross-sectional data collection also does not allow a true predictive validity assessment. This study was also conducted approximately 10 months into the COVID-19 pandemic, which may have influenced the study results. The authors intend to do additional studies to validate the WPBS in diverse samples and time.

Conclusions

The new WPBS is a valid and reliable instrument that can identify working parent burnout. It is also predictive of parental depression and anxiety. The 1-item assessment had good convergent validity with the WPBS and, therefore, could be used as a very brief screen for working parent burnout. Future research should focus on validating the WPBS and 1-item assessment in diverse populations and finding specific interventions to prevent and improve parental burnout in working parents.

SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found in the online version at <https://doi.org/10.1016/j.pedhc.2022.05.020>.

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