



**SOCIAL WORK DOCTORAL STUDENT WELL-BEING
DURING THE COVID-19 PANDEMIC:
A DESCRIPTIVE STUDY**

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ABSTRACT

Aim/Purpose	This descriptive study examines indicators of well-being and sources of emotional connection for social work doctoral students at American institutions during the COVID-19 pandemic, including symptoms of depression, anxiety, work-related burnout, emotional connection to others, and changes in child care among parent respondents. This study also explores if particular groups of doctoral students experience heightened risks to well-being during the pandemic.
Background	Social isolation strategies associated with the COVID-19 pandemic present challenges for doctoral student well-being, mental health, professional relation-

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ships, and degree persistence. Of particular concern is the potentially disproportionate impact the pandemic may have on the well-being of students who already face additional barriers to degree completion, such as parents and caregivers, as well as those who face obstacles associated with structural oppression, including persons of color, women, and sexual minority (SM) students.

Methodology	Baseline data was used from a longitudinal survey study conducted by the authors on social work doctoral student well-being during the COVID-19 pandemic. Participants ($N = 297$) were recruited through the Group for the Advancement of Doctoral Education in Social Work's (GADE's) publicly available list of 89 member institutions in the United States. The majority of respondents identified as women (80.1%), 35% of the sample identified as a person of color and/or non-White race, 30% identified as a sexual minority, and 32% were parents of children under 18 years of age.
Contribution	This study contributes to the larger body of literature on factors associated with risk, resilience, and well-being among doctoral students, and it offers a specific exploration of these factors within the context of the COVID-19 pandemic. This study deepens our understanding of social work doctoral students in particular, who have higher rates of doctoral enrollment by women and persons of color than many other academic disciplines.
Findings	Emotional connection to loved ones was significantly correlated with lower levels of depressive symptoms, anxiety symptoms, and work-related burnout. Outcomes varied by race, with Black and Asian respondents indicating higher levels of emotional connection to loved ones as compared to White respondents, and Black respondents indicating lower levels of anxiety and depression compared to White respondents. SM respondents indicated significantly lower levels of emotional connection and higher levels of depression and anxiety, as compared to heterosexual respondents. Parents reported receiving substantially less child care assistance than they were before the pandemic, but also reported lower levels of anxiety, depression, and work-related burnout compared to childless respondents.
Recommendations for Practitioners	Recommendations for doctoral program directors and chairs include implementing a purposive communication strategy, faculty modeling self-care and boundaries, creating opportunities for connection, scheduling value-added activities driven by student interest and needs, approaching student needs and plans of study with flexibility, and creating virtual affinity groups to help students connect with those facing similar challenges.
Recommendations for Researchers	Outcome evaluation studies of doctoral program initiatives and policies to promote student well-being--both during and in the aftermath of the COVID-19 pandemic-- is warranted.
Impact on Society	The COVID-19 pandemic presents complex financial, interpersonal, and programmatic challenges for doctoral faculty and program directors, many of which affect the well-being and mental health of their students. Findings and recommendations from this study may be used to address the needs of doctoral students and support their path to doctoral degree completion.
Future Research	Future studies should include measures that tap a broader range of indicators of depression, anxiety, and emotional connection, and additional domains of well-being. Multivariate analyses would permit predictive conclusions, and follow-up qualitative analyses would offer deeper insights into doctoral students'

well-being, coping skills, and experiences within the context of the COVID-19 pandemic.

Keywords doctoral students, COVID-19, well-being, emotional connection, burnout

INTRODUCTION

Doctoral students face a myriad of challenges that can affect their well-being, mental health, and degree persistence, including demanding workloads, feelings of isolation and inadequacy, balancing personal relationships and family responsibilities, financial concerns, and navigating supervisory relationships (Cornwall et al., 2019; Wisker & Robinson, 2018). While a variety of evidence-based programmatic strategies enhance doctoral student success, the COVID-19 pandemic has had negative effects on traditional methods of support that students use to cope (Wang & DeLaquil, 2020). The COVID-19 pandemic, and subsequent social isolation/quarantine public health strategies, are expected to have long lasting impacts on many populations. Of particular concern are groups who already face additional barriers to PhD completion, such as caregivers and parents (Mirick & Wladkowski, 2018; Scarpena, 2020), as well as those who experience barriers associated with structural oppression, including persons of color, women, and sexual minority (SM) students (Blockett et al., 2016; Herzig, 2004; Patterson-Stephens et al., 2017; Scarpena, 2020). The addition of COVID-19 is expected to disproportionately affect the well-being and educational pursuits of these groups. In social work, where the majority of doctoral students are women, persons of color, and/or other underrepresented minorities (Anastas & Kuerbis, 2009; Council on Social Work Education [CSWE], 2020), questions about retention and well-being are of particular importance in the aftermath of the pandemic. This exploratory study provides a baseline overview of well-being in a national sample of social work doctoral students surveyed in November and December of 2020 during the COVID-19 pandemic.

LITERATURE REVIEW

Doctoral student challenges to well-being

Doctoral students may contend with a number of concerns that affect program satisfaction, career trajectory, and overall well-being. Feelings of isolation and inadequacy are common stressors for doctoral students (Ali & Kohun, 2006; Gardner, 2010; Waight & Giordano, 2018). Workload demands are significant, with childless doctoral students spending an average of 75 hours per week on doctoral studies, employment, and household duties. Fathers that are doctoral students spend an estimated 90 hours on these same tasks and mothers spend 100 hours per week (Mason et al., 2009). A national survey of psychology doctoral students found that workload demands were the most stressful aspect of their doctoral program experience (Rummell, 2015). Workload demands can interfere with doctoral students' personal lives and relationships (Cornwall et al., 2019; Rummell, 2015), and are negatively associated with engagement with healthy self-care coping strategies (Schmidt & Hansson, 2018).

While all doctoral students share similar sources of stress, some groups experience structural and systemic challenges that add additional barriers to well-being and degree persistence. Doctoral students of color have reported a variety of race-related stressors in the academy, including difficulties connecting with faculty of color for mentorship experiences, microaggressions from peers and faculty, isolation, devaluation of research on race, experiencing "low expectations and high standards," and anxiety around managing racial bias as a classroom instructor (Davis & Livingstone, 2016; Dortch, 2016; Truong & Museus, 2012; Waring & Bordoloi, 2012). There is an intersectionality between race and gender that presents unique challenges for doctoral student women of color, including simultaneous experiences of both racism and sexism in academia (Ramos & Yi, 2020). Sexual minority (SM)

doctoral students may also face barriers associated with marginalization in academia. Beagan and colleagues' (2021) study of SM academics identified common microaggressions and bias experienced by SM faculty which led to feelings of invisibility, tokenism, and isolation, all of which contributed to a taxing sense of hypervigilance among participants. Lastly, doctoral women with children ("doctoral student moms") do not necessarily experience structural or institutional oppression, depending on whether they are members of marginalized groups, but parenting doctoral students must contend with their own unique challenges to success (Brown & Watson, 2010; Mirick & Wladkowski, 2018; Schmidt & Umans, 2014). Examples include doctoral student moms' feelings of guilt in managing parenting roles and doctoral work expectations, anxiety over how they are perceived by faculty and academic peers, and fears of being "mommy-tracked" or viewed as less serious about their research careers (Brown & Watson, 2010; Gardner, 2009; Trepal et al., 2014).

The stressors related to doctoral studies have been linked with mental and physical health problems that impact students' overall well-being. A Belgian study found that mental health problems are significantly more prevalent among PhD students ($N = 3,659$), as compared to highly-educated members of the general population and other higher education students, with one in two doctoral students experiencing psychological distress (Levecque et al., 2017). A smaller sample ($N = 81$) of Australian doctoral candidates had similar findings, with doctoral students reporting higher levels of depression, anxiety, and stress than a general population comparison group (Barry et al., 2018). Self-critical perfectionism—a common trait among doctoral students—has been linked with increased rates of depression and burnout among doctoral students (Richardson et al., 2020). Rummell (2015) found that over 80% of doctoral students ($N = 119$) reported feeling overly anxious or worried biweekly or more, 75% of students struggled with irritability and difficulty concentrating, and over 50% experienced difficulties with sleep and appetite changes. Physical and somatic complaints were also common, with over half of participants experiencing fatigue, headache, back pain, and or gastrointestinal distress biweekly or more. The physical and mental health issues reported by doctoral students warrant that doctoral programs create interventions to promote student well-being and coping skills.

Relational health, stress-buffering, and well-being

Despite the challenges faced by doctoral students, several factors have been identified as protective in an academic setting. Paramount among these factors is relational support, and the emotional connections that are nurtured in these supportive relationships (Greene, 2015; Jairam & Kahl, 2012; Liechty et al., 2009; Schmidt & Hansson, 2018). Three domains of relational support have been identified as essential for doctoral student success: advising and mentoring from a faculty member, peer support, and support from family and friends outside of the doctoral program. Mentoring and faculty support have been identified as primary retention factors for doctoral students, and have been linked with career commitment and persistence, academic productivity, feelings of academic competence, and long-term self-efficacy (Brill et al., 2014; Paglis et al., 2006; Ulku-Steiner et al., 2000; Young et al., 2019). Peer relationships and social support offer a key source of emotional connection and a coping resource (Greene, 2015; Jairam & Kahl, 2012; Schmidt & Hansson, 2018), and positive experiences with academic peer networks have been shown to predict academic success for doctoral students (Hlebec et al., 2011). Support from family and friends outside of the doctoral program have also shown critical benefits, offering doctoral students supportive emotional connections, encouragement, an escape from work-related stressors, and a valuable resource for stress coping (Dickerson et al., 2014; Schmidt & Hansson, 2018).

The stress-buffering framework (Cohen & Wills, 1985) proposes one model through which relational connections may be understood as a protective source of resilience among doctoral students (Jairam & Kahl, 2012). According to this framework, distress results from an individual's appraisal of an experience as stressful, the perception that they lack the necessary resources to effectively cope, and subsequent negative emotional and physical consequences. The capacity for problem-solving, pro-

cessing information, organizing thoughts, and remembering—all the cognitive and executive functions—become compromised when someone is under stress (Leskin & White, 2007; DePrince et al., 2009). Relational or social supports can buffer the individual from stress, either by re-appraising the experience as less stressful or mitigating the individual's reaction to stress (See Figure 1). Faculty, doctoral student peers, non-student friends, and family all have the potential to play this stress-buffering role in doctoral students' lives (Greene, 2015; Schmidt & Hansson, 2018; Young et al., 2019).

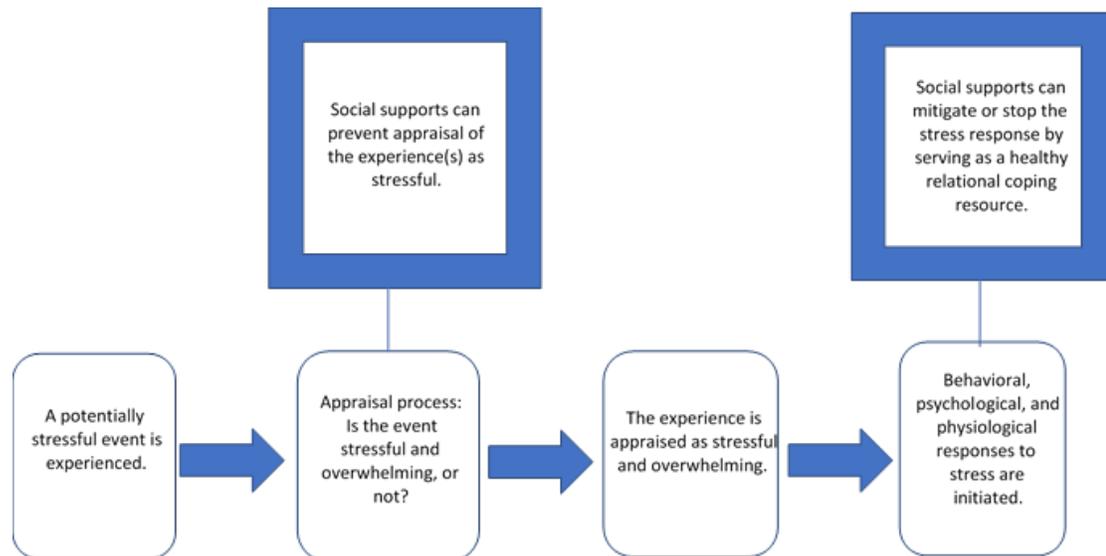


Figure 1: The Stress-Buffering Framework suggests two points at which social supports may play a stress-buffering role. (Adapted from Cohen and Wills [1985]).

COVID-19 and the doctoral student experience

The COVID-19 pandemic has led to widespread changes in the way individuals navigate their professional and personal lives since 2020. For doctoral students, social distancing, campus closures, remote learning, and stay-at-home orders have changed communication patterns and informal engagement with others during the course of a typical day. Quarantining, or self-isolation as a means to protect oneself and/or others from infectious disease, has been linked with detachment from others, poor work performance, reduced concentration, difficulty making decisions, and a high prevalence of symptoms related to psychological distress and trauma (Brooks et al., 2020). A national survey of graduate and undergraduate students in U.S. public universities during months 3–5 (May through July, 2020) of the COVID-19 pandemic ($N = 15,346$) found that over one third screened positive for major depressive disorder (Chirikov et al., 2020). Notably, research doctoral students reported the highest levels of generalized anxiety disorder and major depressive disorder compared to all other levels of graduate and professional students (Chirikov et al., 2020). Depression and anxiety disorders were also more common among women, caregivers, parents, students of color, members of the LGBTQ+ community, and low-income students in this sample. Additionally, working parents are providing an average of 40 additional hours per week of childcare since the pandemic began and daycares and schools have closed; the majority of this extra childcare is provided by women (Sevilla & Smith, 2020). These findings indicate additional challenges encountered by doctoral students in general, and women in particular, as they manage full-time parenting with full-time work or study during a pandemic (Andersen et al., 2020; Gabster et al., 2020; Kibbe, 2020).

Although emotional connections derived from relational supports are a key source of thriving among doctoral students, the COVID-19 pandemic is likely impacting the way students engage with such relational coping resources. Sources of emotional connection, such as socializing with friends, visiting with family, participating in spiritual/religious services and activities, and attending communal celebrations like weddings, graduations, and holiday and milestone events such as birthdays, have either changed or been suspended during the pandemic. Interactions that occurred informally prior to the pandemic must now be scheduled, coordinated, and/or moved into virtual formats. While there have been impressive demonstrations of flexibility and resilience in the ways individuals connect with one another during this time (Imber-Black, 2020), such creative and virtual adaptations do not replace the nuanced experience of in-person interactions (Scott et al., 2020).

Opportunities to build professional connections and relationships have also been disrupted by the pandemic (Wang & DeLaquil, 2020). The types of professional relationships doctoral students develop, and the quality and consistency of interaction within these networks, can influence the opportunities they are offered (Sweitzer, 2009). Professional connections and rapport-building may now be limited to scheduled Zoom meetings, phone calls, and emails, rather than the informal interactions that take place before and after class, in academic buildings with office spaces and classrooms, and during in-person team meetings. The cancellation of research conferences has also affected doctoral students' opportunities to engage in cross-university networking and collaboration (Wang & DeLaquil, 2020).

CURRENT STUDY

As doctoral faculty and program directors navigate the financial, interpersonal, and programmatic complexities of the COVID-19 pandemic and its aftermath, the well-being and mental health of students becomes an urgent programmatic issue. Program responses and policies must address the needs of doctoral students in order to build a thriving community of emerging scholars, who remain personally and professionally resilient in the face of this global health crisis. Social work doctoral students represent a unique subset of doctoral students. The demographics of social work doctoral students increases their vulnerability, with nearly 75% identifying as women, less than half identifying as non-Hispanic White (46%), and the majority within the age range for childbearing and parenting (CSWE, 2020).

This exploratory study uses survey data to provide a baseline of social work doctoral students' well-being during months 9–10 (November and December, 2020) of the COVID-19 pandemic. Guided by prior research on doctoral student well-being, persistence, and success, this study characterizes well-being by measures of work-related burnout, anxiety, depression, and emotional connectedness to others. Additionally, differences in these metrics of well-being by students' gender, race, sexual minority status, and/or parenting status are presented. Lastly, parents' current childcare arrangements and assistance, and childcare changes that resulted from the pandemic, will be summarized.

METHODS

DESIGN AND SAMPLE

This study is part of a larger longitudinal study conducted by the authors on social work doctoral student well-being during and after the COVID-19 pandemic, with ongoing data collection. It was approved by the University's Institutional Review Board (approved 10/28/2020, Study Number 20201467). The methods and results described here pertain to baseline data only. Participants were recruited through the Group for the Advancement of Doctoral Education in Social Work (GADE's) publicly available list of 89 member institutions in the United States. Individual students enrolled in member doctoral programs were contacted with a recruitment letter and electronic survey link if their email address was publicly-available on their program's website ($N = 864$). Doctoral program chairs were also contacted with a recruitment letter and asked to circulate study information among

their students. Participants who completed the baseline survey were entered into a raffle for one of ten \$20 Amazon gift cards.

A total of 351 individuals completed the electronic screening questions for eligibility, which inquired if individuals: 1) Are currently enrolled in a social work or social welfare doctoral program, 2) Are 18 years of age or older, and 3) Speak English. Four individuals were ineligible due to not being currently enrolled in a doctoral program, 322 individuals completed the informed consent, and 297 individuals completed some or all of the survey measures, resulting in a 34% response rate. Pairwise deletion was used for this descriptive analysis, so sample size varies by outcome variable due to missing data. A full description of the sample is presented in Table 1.

Table 1: Sample Description

Demographic Variable	n (%)
Gender identity (<i>N</i> = 297)	
Woman	238 (80.1%)
Man	46 (15.5%)
Other gender identity*	13 (4.4%)
Race (<i>N</i> = 292)	
White	187 (63%)
Black or African-American	42 (14.1%)
Asian	37 (12.5%)
Other race	26 (8.8%)
Sexual Orientation (<i>N</i> = 295)	
Heterosexual	205 (69.0%)
Sexual minority**	90 (30.3%)
Marital status (<i>N</i> = 295)	
Married	147 (49.5%)
Partnered (in a romantic relationship, not married)	65 (21.9%)
Separated, divorced, or widowed	14 (4.6%)
Single (never married)	69 (23.2%)
Parent status (<i>N</i> = 297)	
Parent of child(ren) under age 18 years	96 (32.3%)
Not a parent	201 (67.7%)
Year in doctoral program (<i>N</i> = 295)	
First-year	64 (21.5%)
Second-year	68 (22.9%)
Third-year	54 (18.2%)
Fourth-year	42 (14.1%)
Five + years	67 (22.5%)
Doctoral program status (<i>N</i> = 297)	
Full-time	259 (87.2%)
Part-time	38 (12.8%)

Note.

*Includes gender queer, non-binary, gender fluid, unsure, and/or additional gender not listed.

**Individuals who identify as lesbian, gay, bisexual, asexual, pansexual, queer, questioning, and/or an orientation not listed.

MEASURES

Surveys were administered electronically using the REDcap secure software platform (projectredcap.org). Measures include the following:

Demographic and background information

Participants reported their age at the time of the study, gender identity (cisgender man, cisgender woman, transgender man, transgender woman, questioning or unsure, gender queer, gender non-binary, or gender fluid, and other), race (Asian, Black or African-American, Middle Eastern, Native American Alaska Native, Indigenous, Native Hawaiian or Pacific Islander, White, Bi- or Multi-racial, or other), ethnicity (Latinx or Not Latinx), sexual orientation (heterosexual, lesbian, gay, asexual, pansexual, queer, bisexual, questioning or unsure, other), relationship status (married, partnered but not married, separated, divorced, widowed, single/never married), whether or not they are a parent/primary caretaker for child(ren) under the age of 18, and their current status in their doctoral program (cohort year and full- or part-time status). Participants were given the option to “check all that apply” for variables of race, gender, and sexual orientation. Given the small number of respondents reporting a gender identity other than man or woman ($n = 13$), only “man” and “woman” were used for gender-based analysis in the study. Race was collapsed into four categories: Asian, Black or African-American, White, and Other, due to the small number of respondents indicating remaining races (see Table 1). Sexual orientation was collapsed into heterosexual and sexual minority (lesbian, gay, asexual, pansexual, queer, bisexual, questioning, unsure, or other) for analysis purposes.

Work-related burnout

The 7-item *Copenhagen Burnout Inventory - Work-related* (Kristensen et al., 2005) uses a 5-point Likert scale to assess the degree to which respondents feel exhausted, worn out, and/or frustrated by their doctoral studies (100 = to a very high degree, 75 = to a high degree, 50 = somewhat, 25 = to a low degree, 0 = to a very low degree). Scores are summed and averaged for a composite burnout score, with possible range of 0 - 100. Scores of 50 -74 are considered “moderate burnout,” 75 - 99 are “high burnout,” and 100 is “severe burnout.” Reliability for this sample was acceptable (Cronbach’s Alpha = .88).

Anxiety and depression

The 12-item *Brief Symptom Inventory* (BSI) (Derogatis & Melisaratos, 1983) uses a 5-point Likert scale to assess respondents’ symptoms of anxiety and depression. A 6-item subscale assesses for depressive symptoms, including feelings of worthlessness, loneliness, loss of interest in enjoyable activities, and a six-item subscale assesses for anxiety symptoms, including restlessness, nerves, tension, and fear. Response options indicate how often respondents feel distress from each symptom over the past seven days, including 1 = not at all, 2 = a little bit, 3 = moderately, 4 = quite a bit, 5 = extremely. Response options from each subscale were summed and averaged for a composite score, with a possible range of 6 - 30 points for each subscale. Reliability for this sample was good for both subscales (Cronbach’s Alpha for anxiety subscale = .86; Cronbach’s alpha for depression subscale = .88).

Emotional connection

Emotional connection and sources of connection were assessed using the *Supportive People and Places Index* (King, 2017). Emotional connection was assessed using a single 5-point Likert item that inquired “How emotionally connected do you feel to loved ones right now?” Response options included 1 = Not at all connected, 3 = Somewhat connected, and 5 = Very connected. Participants were asked about sources of connection using the following question: “Thinking about the past month, who do you feel strong support from? Check all that apply.” Support sources tapped into family, friends, professional, community, and spiritual domains. Participants were also asked to indicate the communities in which they felt valued over the past four weeks (“Check all that apply”), including neighborhood, school, spiritual, virtual, home, work, medical, and other communities.

Doctoral Student parenting questions

The present analysis includes two items from the parenting measure. For this analysis, respondents indicated if the amount of childcare they currently receive is different from the amount they received prior to the pandemic (more, less, the same, or other), and what their current childcare arrangements are. They could respond: (1) no consistent and substantial help from individuals outside the household; 2) using a childcare center, baby-sitter, nanny, after-school program, and/or childcare from a non-family member; 3) an extended family member provides consistent childcare; 4) children are old enough that childcare is not needed; or, 5) other.

DATA ANALYSIS

Descriptive statistics were calculated for all study variables and individual scale items using SPSS (version 27) data analysis software, including frequencies, range, mean and standard deviations for interval-level variables. Histograms were plotted and skewness and kurtosis were obtained for outcome variables to confirm normality. Bivariate correlations were calculated for outcome variables; t-tests and one-way ANOVAs were used to examine differences in well-being indicators by gender, race, sexual orientation, and parent status.

RESULTS

WELL-BEING DESCRIPTIVE OUTCOMES

Appendix A presents descriptive statistics and bivariate correlations for well-being outcome variables (depression, anxiety, work-related burnout, and emotional connection). General depressive symptoms were moderate ($M = 13.51$, $SD = 5.47$), although respondents did more frequently report experiencing depressive symptoms extremely often or quite often, as compared to anxiety symptoms. The most commonly-reported depressive symptoms were feeling blue (39%) and feeling lonely (30.3%). Approximately 20% of respondents reported loss of interest in activities (20.9%) and feelings of hopelessness (19.5%). A smaller number of respondents indicated feelings of worthlessness (14.4%), terror (7.1%), or thoughts of ending their life (2%). Depression was positively correlated with anxiety and work-related burnout, and negatively correlated with emotional connection.

General anxiety symptoms were moderate to low in this sample ($M = 13.14$, $SD = 5.19$), with less than one quarter of respondents indicating they experienced “extremely often” or “quite often” the symptoms of fearfulness (21.2%), nervousness or shakiness (19.2%), restlessness and difficulty settling (14.2%), frightened for no reason (9%), or feelings of terror (7.1%). One notable departure from this pattern was feeling tense, with over one third of respondents (34.7%) reporting this symptom extremely or quite often. Anxiety was positively correlated with both depression and work-related burnout, and negatively correlated with emotional connection.

Respondents reported moderately high levels of work-related burnout ($M = 55.01$, $SD = 21.11$), which was positively associated with both anxiety and depressive symptoms. Emotional connection to loved ones was moderate in this sample ($M = 3.49$, $SD = 1.02$), and significantly correlated with lower levels of anxiety, depression, and work-related burnout.

DIFFERENCES IN WELL-BEING OUTCOMES BY DEMOGRAPHIC GROUPS

Appendix B presents the differences in well-being indicators by gender, race, sexual orientation, and parent status. Depressive symptoms were more commonly reported in SM respondents as compared to heterosexual respondents, $t(267) = -4.18$, $p < .001$, and childless respondents as compared to parenting respondents, $t(269) = 2.23$, $p = .03$. Depressive symptoms also varied significantly by race, $F(3, 264) = 3.72$, $p = .01$, with White students reporting more depressive symptoms compared to Black students. No differences in depressive symptoms were noted between genders. Similar to depressive symptoms, SM respondents also reported significantly higher levels of anxiety symptoms (M

= 15.08, $SD = 5.11$) compared to their heterosexual peers ($M = 12.26$, $SD = 5.01$), $t(268) = -4.28$, $p < .001$, and childless doctoral students reported higher levels of anxiety ($M = 13.57$, $SD = 12.21$) compared to their parenting peers ($M = 12.21$, $SD = 4.66$), $t(270) = 2.01$, $p = .05$. Significant differences were also noted by race, $F(3, 265) = 6.18$, $p < .001$, with Black students reporting lower symptoms of anxiety ($M = 10.34$, $SD = 4.56$) compared to their White and Asian peers. No differences in anxiety symptoms were noted between genders.

Over half of respondents reported very high or high levels of emotional exhaustion (51%) and feeling worn out by their doctoral work (61%), while over one third of respondents indicated high or very high levels of feeling burnt out (42.5%), exhausted at the thought of work (35%), frustrated with doctoral work (34%), and lacking the energy for time with family and friends (37.7%). The only groups that demonstrated significant differences in work-related burnout scores were parents and non-parents, with childless respondents reporting significantly higher levels of work-related burnout compared to their parenting peers, $t(282) = -2.40$, $p = .02$.

Although emotional connection did not differ by gender or parent status, there were significant differences in emotional connection by race, $F(3, 279) = 8.76$, $p < .001$, with Black and Asian respondents reporting higher levels of connection to loved ones as compared to White respondents. Significant differences were also observed by sexual orientation, with heterosexual respondents reporting higher levels of emotional connection compared to SM respondents, $t(281) = 5.09$, $p < .001$. The three sources of relational support most frequently reported by respondents (Appendix C) included romantic partners (68.7%), friends outside of one's doctoral program (64.6%), and friends in one's doctoral program (56.9%). Co-workers (11.8%), neighbors (8.4%), and pastors/faith leaders (4%) were the least-commonly sources of primary support. Regarding communities in which respondents feel most valued (Appendix C), over three quarters of respondents indicated they feel most valued at home (77.8%), followed by school (43.1%) and work (34.7%).

PARENTS' CHILDCARE DURING THE PANDEMIC

Approximately one third of respondents ($n = 96$, 32.3%) indicated they are a parent or guardian of one or more children under the age of 18, with the majority of parents identifying as women (90.6%). Nearly two thirds of parents (62.5%) reported currently receiving fewer hours of assistance with childcare compared to childcare received prior to the pandemic. Regarding current childcare arrangements, half of parents (50.0%) indicated that they currently do not receive any outside assistance with childcare. Over one quarter (27.0%) of responding parents reported non-family assistance with childcare, such as a childcare center, after-school program, baby-sitter, nanny, or other childcare service, while only 8% of parents reported childcare help from extended family. Although the small number of male respondents prohibited analyses of differences in outcome variables between male and female parents, it is noteworthy that doctoral student moms reported higher mean scores of work-related burnout ($M = 51.37$, $SD = 21.28$), anxiety ($M = 12.20$, $SD = 4.63$), and depression ($M = 12.80$, $SD = 5.19$), as compared to doctoral student dads (burnout $M = 48.21$, $SD = 13.32$; anxiety $M = 10.86$, $SD = 3.29$; depression $M = 9.29$, $SD = 3.25$).

DISCUSSION

This study provides an overview of well-being in a United States national sample of social work doctoral students several months into the COVID-19 pandemic. The high proportion of respondents indicating depressive symptoms of loneliness and feeling blue is similar to that of higher education students who screened positive for major depressive disorder in Chirikov et al.'s (2020) study conducted earlier in the pandemic, suggesting that persistent feelings of loneliness and sadness may be lingering throughout the pandemic for a subset of doctoral students. However, our findings are limited by the lack of pre-pandemic data on the current sample, thus prohibiting comparison of well-being indicators before and during the pandemic.

Indicators of work-related burnout were moderately high in the present sample, similar to studies of doctoral student well-being conducted prior to the pandemic (e.g., Rummell, 2015). A significant proportion of the present sample reported excessive emotional exhaustion and feeling worn out by their doctoral work. Work-related exhaustion and burnout are associated with impaired work performance (Aboagye et al., 2019), diminished creativity (Ghanizadeh & Jahedizadeh, 2016), absenteeism and fatigue (Dyrbye et al., 2019). Skills in creative conceptualization and self-motivation are hallmarks of doctoral work, and arguably a necessity for successful matriculation through a PhD program. High levels of exhaustion and burnout may threaten students' abilities in these areas, and should be noted as key areas for program-level prevention and enrichment initiatives.

Notably, respondents' degree of emotional connection to loved ones was strongly associated with less work-related burnout, anxiety, and depressive symptoms. Although the descriptive nature of this study prohibits drawing cause-effect conclusions, these findings do align with the stress-buffering framework (Cohen & Wills, 1985) that links stronger emotional connections to lower levels of stress. Similar to findings from previous studies on emotional connection during the pandemic (Okabe-Miyamoto, 2020), the primary source of relational support was found in romantic partners. The second major support was friends, with over half of respondents indicating that friends outside of the doctoral program, as well as doctoral program peers, were their strongest sources of support. This finding aligns with prior research on the profound impact that emotional support and connection among doctoral student cohort members can have on their persistence, satisfaction, and experiences in doctoral programs (Nimer, 2009).

DOCTORAL STUDENT WELL-BEING AND GROUP MEMBERSHIP

Doctoral students of color

Departing from prior research on mental health among university students during the pandemic (e.g., Chirikov et al., 2020), students of color reported lower levels of both anxiety and depression compared to White students. There are several possible explanations for this finding. First, students of color reported significantly higher levels of emotional connection to loved ones compared to White respondents. Drawing from the stress-buffering framework, students of color may have found more adaptive strategies for maintaining strong relational connections during the pandemic, thus providing a more robust network of support to mitigate the impact of stress. Consistent with previous research, a nationally-representative sample of American adults found that African-American respondents reported more frequent daily contact with extended family, stronger fictive kin networks, and greater ties to congregational relationships compared to non-Hispanic White adults, all of which served protective or buffer effects against depression (Taylor et al., 2013). Second, the BSI measures a small subset of symptoms experienced in the past seven days. The BSI depression and anxiety subscales do not measure somatization or physical manifestations of stress, which some research suggests is more relevant for communities of color who may make fewer distinctions between mind and body symptoms (Prelow et al., 2005). Third, this study was conducted during widespread civil unrest in response to racial injustice, discrimination, and state-sanctioned racial violence against persons of color in the United States. The BSI was not designed to capture respondents' experiences of stress or mental health symptoms associated with this current and specific cultural circumstance. A measure of mental health symptoms and/or distress that more specifically links to respondents' experiences navigating this complex and traumatic cultural climate may offer a more nuanced understanding of well-being for students of color.

Sexual minority (SM) doctoral students

SM doctoral students in our study report significantly higher levels of anxiety and depressive symptoms compared to their heterosexual counterparts. This may be attributed, in part, to the already heightened levels of mood disorders found among sexual minorities in the general U.S. population (United States Department of Health and Human Services [USDHHS] et al., 2018). However,

emerging research of the impact of COVID-19 on sexual and gender minority (SGM) groups, or those that identify as lesbian, gay, bisexual, pansexual, queer, questioning and/or transgender or other nonbinary gender identity, reveals significant differential impacts on SGM individuals compared to their cisgender heterosexual peers across a number of indicators of wellbeing. One internet-based community sample found significantly higher levels of depression and anxiety, exceeding clinical threshold for SGM participants ($N=290$) compared to cisgender heterosexual counterparts ($N=1090$) at rates 3.7 times higher, even after controlling for subgroup differences (Moore et al., 2021). This represents a 7-fold increase in rates of clinically significant anxiety and depression among SGM individuals during COVID-19, compared to rates prior to the pandemic (USDHHS et al., 2018). Our study corroborates the elevated rates of anxiety and depression among sexual minorities that are evidenced in other samples, demonstrating SM doctoral students are more vulnerable to increased mental health symptomatology compared to their heterosexual peers.

Indicators of financial strain are also markedly worse for SGM individuals during COVID-19. The Movement Advancement Project 2020 surveyed households for impacts of COVID-19 on indicators of security and health, and found a consistent pattern of LGBTQ+ households being “harder hit” by the pandemic compared to cisgender heterosexual ones (Drabble & Eliason, 2021). For example, LGBTQ+ households experienced higher job loss (64% vs 45%), serious financial problems (66% vs. 44%) and food insecurity (19% vs. 5%) compared to non-LGBTQ+ households (Movement Advancement Project, 2020). It is possible that SM doctoral students face greater financial hardships as a result of COVID-19 compared to their heterosexual peers. These students may be more likely to be involved in the service industry to supplement their income, less likely to receive familial financial support, and if partnered, more likely to be partnered to someone also negatively impacted financially by the pandemic. Access to affirmative health services has also been curtailed during COVID-19 (van der Miesen et al., 2020; Kidd et al., 2021). SGM-affirming healthcare, including maintenance of mood disorders, and transgender/gender affirming interventions like hormone replacement, are critical for overall SGM physical and mental health. One study of transgender and nonbinary individuals ($N=208$) found that during COVID-19, one third of the sample experienced interrupted or delayed routine gender affirming physical health care and 11% had a gender affirming surgery canceled or postponed. In addition, among this sample there was a significant reduction in perceived support from the LGBTQ+ community (Kidd et al., 2021).

The current study found a significant difference in perceived emotional support from loved ones among SM doctoral students compared to their heterosexual peers. Similarly, other studies have found significantly lower levels of perceived overall social support among SGM-individuals compared to cisgender heterosexual counterparts during COVID-19 (Moore et al., 2021); loss of connection to LGBTQ+ identified public spaces (Grant et al., 2021); heightened anxiety and fear of SGM-based victimization while navigating public spaces during the pandemic (Grant et al., 2021); and forced residence with bio-legal family or other cohabitating living arrangements with individuals who are not affirming or accepting (Grant et al., 2021; Gato et al., 2021). The impact of quarantine and social isolation/social distancing measures for SGM individuals has compounded a sense of isolation and disconnection from SGM-affirming people and places, with implications for mental health. For SGM doctoral students, this may translate to the loss of LGBTQ+ affirming places both on campus and in the local community. It may also mean living arrangements that are not safe or affirming of SGM people.

Finally, the role of intersectionality for SM doctoral student well-being is important to discuss. In the present study sample, the breakdown of participant SM status by racial identification was as follows: 36% of White participants, 22% of Asian participants, 21% of Black/African American participants, and 23% of “Other race” participants (Middle Eastern, Native American, Alaska Native, Indigenous, Native Hawaiian or Pacific Islander, and bi- or multi-racial individuals) identified as SM. Given the disproportionate impact of COVID-19 on communities of color, it is crucial to highlight how doc-

toral students who hold multiple, marginalized identities may experience this pandemic vastly differently. Moreover, how sexual identity is lived and experienced, and how groups of SM gather, share social support and mutual aid is contextual and dependent on other community group affiliations (e.g. cultural, gender, religious, racial). Therefore, the experiences of SM doctoral students are best supported by policies and practices that attend to intersectionality.

Parenting doctoral students

Parents in this study reported lower levels of anxiety, depression, and work-related burnout compared to their childless doctoral student peers. This finding may initially seem counterintuitive given the additional family responsibilities working parents are juggling during the pandemic. Indeed, other studies have shown that some parents experienced an increase in mental health symptoms during the COVID-19 pandemic, particularly among those who are navigating food insecurity, job loss, changes in insurance status, and children with behavioral problems (Patrick et al., 2020; Westrupp et al., 2020). However, sociological research on role status and mental health has suggested that parenthood may confer protective benefits by providing adults with a sense of purpose and meaning in life, as well as gratification, both of which promote emotional well-being (Evenson & Simon, 2005). Within the context of the social isolation that defines the COVID-19 pandemic in particular, parents' daily responsibilities and routines for the care of their children—along with the opportunity to engage in consistent face-to-face interactions and physical affection with their children—may offer protective benefits against psychological distress and/or work-related burnout. As highlighted in the results, however, it is important to consider that parenting women's mean scores on burnout, depression, and anxiety were notably higher than those of parenting men's scores in this sample. While we were unable to statistically test this relationship due to low sample size of male parents, such findings suggest that gender may differentially impact doctoral student parents' mental health and burnout within the context of the COVID-19 pandemic.

It is also critical to note that nearly two thirds of parents in this study—the vast majority of whom are women—reported decreases in child care assistance compared to pre-pandemic levels, and 50% indicated they had no outside help at all. Such findings have significant implications for doctoral student moms, as pandemic-related research on the division of work-family responsibilities has found that working moms disproportionately take on these unexpected childcare responsibilities, compared to working fathers (Crook, 2020; Sevilla & Smith, 2020). In a profession such as academia, where performance evaluation is heavily based on one's ability to generate new knowledge and produce well-conceptualized written manuscripts for publication, the pandemic-related balancing act of juggling full-time caretaking with full-time work presents complicated challenges. With more hours devoted to childcare and fewer hours devoted to work, academic moms must “triage” their work responsibilities (Gabster et al., 2020), with early qualitative studies from the pandemic showing that teaching responsibilities are often prioritized at the detriment of research and writing (Minello, 2020). As the pandemic continues to highlight gender inequities in societal and family divisions of labor, findings from this study have implications regarding the responsibility of doctoral programs to not reproduce such inequities in their evaluation methods and program structures. Program administrators and faculty mentors must explore flexible programmatic strategies to support, encourage, and foster professional growth in doctoral student parents, and women in particular.

LIMITATIONS

There are several limitations to this study warrant consideration. First, given the cross-sectional, descriptive nature of this study, findings do not reveal predictive or cause-effect relationships between variables. Second, the lack of pre-pandemic data precludes us from understanding how these indicators of doctoral student well-being compare to student experiences prior to the COVID-19 pandemic. Third, the survey response rate was 34%; any data about doctoral students who self-selected into this study that may differ from those who chose not to participate are unknown. Fourth, generalizability of these findings is limited given its descriptive nature. Fifth, the measures have limitations,

including the breadth and depth of anxiety and depressive symptoms, and emotional connection. Similarly, there were no measures to assess stress responses to the 2020 political and civil unrest related to racial injustices, police brutality, discrimination, and racial violence. Social work doctoral students may find themselves particularly attuned to, affected by, and involved in such social movements, given the profession's connection to issues of social justice, human rights, and political advocacy.

CONCLUSION AND IMPLICATIONS

In the presence of supportive relational connections, and in the absence of work-related burnout and excessive stress, programs have the opportunity to nurture the creativity, professionalism, and productive advancement of their doctoral students, even in the midst of a global public health crisis. The authors offer the following considerations for doctoral program administrators and faculty mentors:

Have a purposive communication strategy. Doctoral chairs and faculty advisors could consider offering multiple and frequent channels of communication for students, including emails, one-on-one meetings, and group settings (virtual or in-person when safe), and demonstrate not only physical safety (e.g., mask wearing, physical distancing, hand washing), but also foster social and emotional safety (e.g., offering check-in prompts for virtual gatherings; administrators holding informal virtual office hours; soliciting student feedback on programming and policy decisions). Social and emotional safety means members feel connected to one another, invested in the community at large, and free to hold and express diverse opinions and beliefs. This allows students to take risks in their learning and their decision-making, approaching things from a curious and empowered perspective, as well as feeling safe in seeking support when they are struggling (Deakin Crick et al., 2007). Opening safe lines of communication for students is paramount, particularly in times of high stress such as the pandemic. As noted in Carello and Butler's (2015) work on nurturing a trauma-informed environment in social work higher education settings, faculty are encouraged to promote emotional safety by "emotionally and intellectually" responding to students' feedback and concerns. Keeping students informed about updates on COVID-19 in the local community as well as policy or procedural changes on campus or within the doctoral program are important as well.

Create frequent opportunities for connection. During pre-pandemic times, opportunities for connection looked different—times of connection were both scheduled through workshops or end-of-year gatherings, and non-scheduled such as hallway or after-class conversations. Doctoral chairs or faculty advisors may have also demonstrated that they are accessible to students by keeping their door open to their office and welcoming students to stop by. However, because of the safety protocols during the pandemic, these gatherings or non-scheduled conversations have been reduced or eliminated. In order to mirror some of these pre-pandemic conditions, it is important to be intentional about creating opportunities for connection (Levine et al., 2021). We suggest offering short but frequent points of social connection built into all elements of doctoral programming. For example, using a virtual platform such as Zoom, doctoral chairs could schedule specific points in the semester where students are brought together virtually to connect and check-in with how they are doing both academically and personally. Program chairs could break a large group into smaller groups with a specific topic to discuss. Toggling back and forth from small group to large group discussions keeps both doctoral students and faculty engaged.

Programs may consider scheduling value-added activities that doctoral students and their advisors or mentors can attend (Pifer & Baker, 2016). These might include workshops on a specific methodology or statistical technique not offered by the program, or a presentation based on research on current issues. Building in a few minutes at the beginning of these value-added activities for small breakout rooms for students and faculty to say hello can mirror the experience of going together to a workshop or sitting next to someone if they were attending the workshop in person. This brief small group breakout rooms activity can also be incorporated into the beginning of each virtual class.

Faculty advisors and mentors can also create opportunities for connection with their doctoral students. A good practice is for faculty advisors to meet virtually with their students on a weekly or bi-monthly basis. These meetings can include both updates on academic progress or research projects, as well as space for doctoral students and faculty to connect and support each other (Hammer et al., 2020). A useful model is for team members to report on a success or what went well in the past week, and one thing they struggled with in the past week. This model allows for open communication for students to ask for support, as well as a time to celebrate professional and personal accomplishments. Doctoral students could also be encouraged to connect as cohorts outside of the classroom experience as a way to foster relational connections. Students have reported positive experiences with such practices outside of the pandemic (Hammer et al., 2020), and it is expected that such opportunities for relational connection would remain equally important during the persistent challenges associated with the pandemic.

Model self-care and boundaries. Due to the pandemic and many faculty and students working from home, work inherently has blended into family life and personal time. It is important for faculty to model and encourage personal time away from the demands of the program so that doctoral students can attend to personal responsibilities and relationships outside of the program (Miller et al., 2018). Some examples of setting boundaries include not sending emails during evening hours or acknowledging in your signature block that you respect personal boundaries. An example of this can be seen in Dr. Jennifer King's signature block where she states: "Please know that I honor and respect boundaries around personal time, well-being, caretaking, and rest. Should you receive correspondence from me during a time that you're engaged in any of the above, please protect your time and wait to respond until you're next working or in front of a computer. Prioritize joy, not email, when and where you can." Another example is for faculty to set out-of-office replies that explicitly state that they are resting and recharging, such as "I am going to be offline from [date to date] to spend some much-needed time resting, connecting with my family, and doing self-care. I will respond to emails as needed on [date]." When faculty model that they respect boundaries between personal/professional time and honor self-care, they send a message to students that these elements are important for well-being and that doctoral students can also exercise boundaries and self-care (Carello & Butler, 2015).

Promote supportive resources for students. Most, if not all, universities and colleges have a variety of resources for students. However, students may not be aware of these resources that are available to them (Waight & Giordana, 2018). Doctoral chairs could create time-limited opportunities for students to learn about different supportive services by having someone make a 15-30-minute presentation. For example, someone from the campus counseling services office could present the supportive services they offer, the various groups they conduct, and how students can access their services. Recording these presentations and posting them on a site will enhance access for doctoral students and program faculty who are unable to attend live sessions. There may also be affinity groups on campus or outside the university that students can participate in. Such programs, for example, can be a supportive group for doctoral student moms who are navigating similar challenges, or for sexual and gender minority students to strengthen their social networks. If your school or department has a shared calendar of events, supportive activities for students (as well as for faculty and staff) can be added to this calendar. Resources can also be included in frequent communication to students through email or as announcements during meetings. The important point here is to normalize that we all need support at different points in our life. With the COVID-19 pandemic, this need may be greater than before the pandemic.

Be responsive and flexible. The COVID-19 pandemic is considered collective trauma (Holman et al., 2020; Kira et al., 2020). Many are emotionally responding to the intense COVID-19 threat to their physical health and the health of their loved ones, while also dealing with life-threatening concerns about their ability to access resources, maintain employment, care for others, and manage ongoing physical isolation. It is important to acknowledge that no one is working in optimal conditions and

many are struggling with mental health issues. Doctoral programs are encouraged to be agile in responding to student needs and exercise flexibility with previously rigid practices or policies. Using opportunities to connect with students as described above will allow doctoral chairs and advisors to identify students who need more support. The pandemic has likely caused doctoral students who traditionally did not struggle with coursework or expectations to have difficulties. Flexibility within courses, as well as the sequencing of courses, offers another opportunity for student support. The path to learning is not linear for everyone, and helping students create alternative course plans when they are struggling is one way programs can promote student resilience in the face of these challenges (Springer et al., 2019). It may also be an appropriate time to examine your doctoral policies and determine if, given the circumstances of the pandemic, it is reasonable to hold students to these policies. If not, consider if a case-by-case exception needs to be made or if you could temporarily modify the policy itself to accommodate all students.

Flexibility may also be demonstrated in redefining accomplishments in academia by focusing on small successes, especially with regard to the writing process (Wilson & Cutri, 2019). For example, doctoral student parents who have primary caregiving responsibilities of young children with no childcare, and/or children who are attending school virtually, do not have large blocks of time to write or do research (Levine et al., 2021). Their current doctoral studies are being squeezed into small windows between caretaking or during hours when their children are sleeping. Pre-pandemic timelines for completing a dissertation chapter or manuscript are challenging, if not impossible, for full-time parents in this circumstance. Advisors can help such students redefine these pre-pandemic goals and perceptions of accomplishment by encouraging “contact point” goals for the dissertation or similar writing projects each week (e.g., making contact with one’s dissertation three times a week, which may include reading an article, reviewing notes, writing a paragraph, or talking with a committee member). This encourages students to maintain work on projects but also accommodates the reality of parents having to string together small chunks of time. In our own work during the pandemic, we have seen significant progress made on dissertations and manuscripts using this technique, while also releasing the stress of trying to maintain what was accomplishable pre-pandemic.

Deans and Directors of social work must respond accordingly. The administration of a doctoral program during a pandemic, following the suggestions above, will require more time and effort. Deans and Directors of social work programs need to be cognizant of the increased demands on doctoral program administrators. During times of unpredictability, such as the COVID-19 pandemic, future planning becomes especially complex. It requires school and department leaders to adapt quickly, repeatedly, and with as little stress as possible. Times of unpredictability also allow for outside-the-box thinking and envisioning new ways forward. Powering with people at all levels of the community across diverse groups, honoring their expertise and their ability to contribute in meaningful ways, may be more helpful in lighting the path forward as we move through this pandemic.

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APPENDIX A

Descriptive Statistics and Bivariate Correlations for Well-Being Outcome Variables

Variable	N	Mean (SD)	1	2	3	4
1. Depression	N = 271	13.51 (5.47)	1			
2. Anxiety	N = 272	13.14 (5.19)	.64**	1		
3. Burnout	N = 284	55.01 (21.11)	.55**	.39**	1	
4. Connection	N = 285	3.49 (1.02)	-.43**	-.29**	-.30**	1

Note. **Correlation is significant at $p < .001$ level

APPENDIX B

Differences in Depression, Anxiety, Work-Related Burnout, and Emotional Connection Scores by Demographic Group

Demo-graphic Variable	Depression			Anxiety			Work-Related Burnout			Emotional Connection		
	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>F</i> <i>p</i>	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>F</i> <i>p</i>	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>F</i> <i>p</i>	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>F</i> <i>p</i>
Gender identity (<i>N</i> = 284)												
Women	13.45(5.32)			13.10(4.97)			54.94(21.3)			3.53(.99)		
Men	12.93(5.92)			12.45(5.96)			55.65(20.3)			3.52(1.15)		
Race (<i>N</i> = 292)												
White	14.07(5.51)		3.72 .01	13.67(4.93)		6.18 <.001	55.82(21.5)	1.10 .35		3.28(1.01)		8.76 <.001
Black	10.81(4.63)			10.34(4.56)			52.41(22.4)			3.84(.89)		
Asian	13.79(5.50)			14.44(5.91)			50.69(20.3)			4.03(.92)		
Other race	13.29(5.18)			11.54(4.89)			59.14(17.7)			3.81(1.02)		
Sexual Orientation (<i>N</i> = 295)												
Heterosexual	12.56(5.11)		-4.18 <.001	12.26(5.01)		-4.28 <.001	53.75(21.7)	-1.48 .14		3.69(.97)		5.09 <.001
SM*	15.47(5.74)			15.08(5.11)			57.80(19.8)			3.05(1.01)		
Parent status (<i>N</i> = 297)												
Parent	12.42(5.12)	2.23	.03	12.21(4.66)	2.01	.05	50.60(20.9)	-2.40 .02		3.48(.92)	.13	.90
Not a parent	14.01(5.56)			13.57(5.37)			57.01(20.9)			3.50(1.06)		

Note. *SM = sexual minority

APPENDIX C

Primary Sources of Relational Support and Communities in Which Respondents Feel Most Valued ($N = 297$)

Support Source	Percent
Romantic partner	68.7
Friend(s) not in doc program	64.6
Friends in doc program	56.9
Parent	47.8
Mentor	35.7
Sibling	31.3
Other family member	19.5
Co-worker	11.8
Neighbor	8.4
Other support	6.4
Pastor/faith leader	4.0
Community	Percent
Home	77.8
School	43.1
Work	34.7
Neighborhood	13.5
Virtual	13.5
Faith	8.8
Other	7.1
Medical	3.4

AUTHORS



Kylie E. Evans, MSW, LSW, is a licensed social worker and doctoral candidate at the Jack, Joseph, and Morton Mandel School of Applied Social Sciences at Case Western Reserve University. Building from her direct practice experiences in social work, Kylie's research interests are focused on relational resilience and relational health among adolescent girls exposed to intimate partner violence (IPV). She is particularly interested in the study of natural mentoring relationships between IPV-exposed youth and non-parental adults, and the role such connections may play in adolescent thriving and disruption of the intergenerational cycle of violence. Kylie is also engaged in research examining the impact of the COVID-19 pandemic on doctoral student parents, including piloting and co-facilitating a virtual supportive mentoring group for social work doctoral student moms with her mentor, Dr. Megan Holmes.



Megan Holmes, PhD, LISW-S, is a licensed social worker, Associate Professor, and Co-Director of the Center on Trauma and Adversity at the Jack, Joseph, and Morton Mandel School of Applied Social Sciences at Case Western Reserve University. She has 15 years of clinical practice and research experience working in the field of child exposure to domestic violence, which continues to be a serious and highly prevalent social problem that can negatively affect children's behavioral and mental health outcomes both in the short term and over the life course. The overarching goal of Dr. Holmes's work is to contribute to the optimal development of children who have been exposed to domestic violence by identifying risk and protective factors that will be translated into interventions. Her current research also focuses on creating community and system responses to trauma that promotes relational health and healing throughout Cleveland and the state of Ohio. At the onset of the COVID-19 pandemic, Dr. Holmes launched a program of research examining the impact of the COVID-19 pandemic on mental health among adults and children. Dr. Holmes has an established record of mentorship with social work doctoral students, including her current work in piloting and co-facilitating a virtual supportive mentoring group for social work doctoral student moms.



Dana Prince, PhD, MPH, is an Assistant Professor at the Jack, Joseph, and Morton Mandel School of Applied Social Sciences at Case Western Reserve University. Dr. Prince's research focuses on health disparities among vulnerable and marginalized young people, with a particular focus on young adults transitioning out of foster care, and sexual and gender minority (SGM) youth involved in the child welfare system. Dr. Prince is currently involved in grant-funded research projects exploring chronic stress, mental health symptoms, and suicidality among SGM youth with current or former involvement in the foster care, as well as initiatives to promote permanency, safety, and well-being among SGM youth currently involved in the child welfare system.



Victor Groza, PhD, LISW-S, is the Grace F. Brody Professor of Parent-Child Studies and current Chair of the Doctoral program at the Jack, Joseph, and Morton Mandel School of Applied Social Sciences at Case Western Reserve University. He is a licensed independent social work supervisor (LISW-S). His research in child welfare focuses on: (1) an examination of the institutional care of children, ways to improve the care of children who must reside in institutions, and the negative impact on child development from early institutionalization; (2) family, children and service system issues in domestic, older-child adoption, step-parent and international adoption; and, (3) workforce development in child protection/child welfare in low and high resource countries. Since 1991 he has been involved in various projects in Romania, India, Ukraine, Belize, Kazakhstan, Norway, Guatemala, and Ethiopia. He has administered a federally-funded training project from 2011-2021 (Child Welfare Fellows program) to improve the public child welfare workforce in Northeast Ohio.