### Intellectual and Developmental Disabilities

# The COVID-19 Pandemic and Direct Support Professionals' and Frontline Supervisors' Mental and Physical Health --Manuscript Draft--

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Abstract:	Direct Support Professionals (DSPs) and Frontline Supervisors (FLSs) play a crucial role in the delivery of home and community-based services for people with intellectual and developmental disabilities (IDD). A four-wave study was launched to understand the experiences of DSPs and FLSs during the COVID-19 pandemic. In the last wave, 2,584 participants responded to questions about mental and physical health issues they experienced. FLSs and DSPs differed in these experiences during the COVID-19 pandemic. Differences included the effect on their daily work, how they viewed the quality of their work life, and whether their employer provided support for staff experiencing adverse mental and physical health outcomes. Policy recommendations to address the mental and physical health of DSPs and FLSs are provided.

The Impact of COVID-19 on Direct Support Professionals and Frontline Supervisors Mental and Physical Health

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Manuscript

DSP & FLS Pandemic Health

Abstract

Direct Support Professionals (DSPs) and Frontline Supervisors (FLSs) play a crucial role in the

delivery of home and community-based services for people with intellectual and developmental

disabilities (IDD). A four-wave study was launched to understand the experiences of DSPs and

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questions about mental and physical health issues they experienced. FLSs and DSPs differed in

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work, how they viewed the quality of their work life, and whether their employer provided

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Keywords: Direct Support Professionals, Frontline Supervisors, Mental Health, COVID-19, IDD

Direct Support Professionals (DSPs) provide essential supports that promote the inclusion and participation of individuals with intellectual or developmental disabilities (IDD) in their communities. These supports include daily living, health and safety, employment, relationships, and community participation (Bogenschutz et al., 2014). It is estimated that there were 4.6 million people who worked in direct support roles (Cambell et al., 2021). Frontline Supervisors (FLSs) often play a dual role that includes guiding and directing the work of DSPs and providing direct support themselves. The workforce literature has less information on FLSs despite the importance of their role.

Laws and colleagues (2024) provided an overview of the state of the direct support workforce, including its diversity. It is important to note that DSPs and FLSs differ demographically. Data from the National Core Indicators State of the Workforce 2022 Survey (2023) showed that both Direct Support Professionals (DSPs) (69.8%) and FLSs (76.9%) are overwhelmingly female. DSPs are more likely to identity as black or African American than FLSs (43.6% vs. 40.9%) or Hispanic/Latine (4.9% vs. 3.9%). FLSs were more likely than DSPs to identify as white (XX vs. 34.1%) or some other race (3.9% vs. 3.3%). FLSs were reported to be Asian (2.3%) at about the same rate as DSPs. The race of 10.9% of DSPs and 8.1% of FLSs were unknown (National Core Indicators Intellectual and Developmental Disabilities, NCI-IDD, 2023.

The workforce crisis was a significant problem before the pandemic, but the pandemic exacerbated the problem (Laws et al, 2024). Turnover rates increased as DSPs and FLSs were expected to manage lockdowns, additional duties to keep the people they supported safe, changes in daily routines, the harmful effects of the pandemic on the people they supported, and covering additional shifts as coworkers left the field (Laws et al, 2024).

The findings presented in this study are from the fourth in a series of surveys conducted with DPSs and FLSs during the pandemic. The lessons learned from these previous studies mirror those reported by Laws et al (2024). Including Changes to work schedules over time with increased responsibilities, more hours worked, different shifts or locations, and different people

supported in all surveys leading to turnover and poor work-life balance. Work life was a challenge throughout the pandemic with more than half of respondents feeling work life was worse or much worse since the start of the pandemic. The physical and mental health of respondents was also challenging. In the 3<sup>rd</sup> survey, 50% reported physical and/or emotional burnout, 47% anxiety, 38% sleep difficulties, 36% depression, 18% physical health complications, and 4% suicidal ideation (Pettingell et al., 2023).

### **Burnout in Direct Support Professionals**

Maslach and Leiter (2016) describe burnout as "a prolonged response to chronic emotional and interpersonal stressors on the job." The fundamental nature of direct support work is "emotion work," which predicts burnout (Zapf et al., 2001). This work requires employees to handle negative emotions, display positive emotions, have the skills to sense the emotions of the person being supported, and be able to influence interactions (for example, alleviating the discomfort of the other person) (Zapf et al. 2001). This may lead to a dissonance between what emotions DSPs feel and can display.

Ryan and colleagues (2021) reviewed the literature on work-related stress and well-being in DSPs. They found that contributors to stress and burnout included workplace demands, having a low level of control, and having a lack of support. A survey of 440 DSPs reported that participants were "overworked" and "under-appreciated" (Johnson et al., 2021). Studies conducted during the pandemic reported high levels of stress and burnout. A survey of 125 DSPs found that 5% reported burnout, 18% emotional exhaustion, 6% reported depersonalization, and 59% reported feeling a loss of personal accomplishment. More than 2,500 DSPs responding to a survey conducted two years into the pandemic reported high levels of stress, fatigue, exhaustion, lack of motivation, and burnout, intensifying high turnover and leaving numerous open positions

(Hall et al., 2022). It should be noted that stress and burnout was reported as a problem prior to the pandemic (e.g., Hatton et al, 2004; Hewitt & Larson, 2007) and continues to be a problem post-pandemic as the on-going workforce crisis has not lessened the challenges related to the shortage of DSPs. ANCOR (2023) surveyed 581 providers across 45 state and D.C. and found that 95% had moderate or severe staffing shortages.

### **Secondary Traumatic Stress**

Secondary Traumatic Stress (STS), also known as compassion fatigue, develops when people who provide supports to others have experienced trauma. It has symptoms similar to post-traumatic stress disorder (PTSD; Osofsky et al., 2008). Figley (2002) notes that people experiencing STS may experience confusion, helplessness, and feelings of isolation. Untreated STS can lead to physical and mental health problems and negatively affect personal relationships and work performance (Pryce et al., 2007).

While STS has been studied in other human services professions, less attention has been paid to DSP experiences. Using the Secondary Traumatic Stress Scale, Boamah and Barbee (2022) surveyed 416 DSPs. They also asked participants to report the number of traumatic experiences of the people they supported. The list of possible experiences included items such as accidents, violence, or adverse childhood experiences (ACES). They found that 83% of the participants experienced exposure to secondary trauma. Participants reported high levels of STS symptoms, including intrusive thoughts (e.g., thinking about the people they supported when not intended; 18%), avoidance (e.g., feeling discouraged; 16%), and arousal (e.g., not sleeping; 21%; Boamah & Barbee, 2022). More than half of the participants (54%) met the criteria for at least one symptom of PTSD (Boamah & Barbee, 2022). FLSs have not been the focus of any studies related to STS.

When asked to describe the COVID-19 experiences of the people they supported, DSPs and FLSs not only reported experiences that may cause direct trauma (e.g., deaths of the people they supported) but also experiences that may cause STS. For example, they reported seeing the person(s) they supported confused over the deaths of housemates, experiencing social isolation, and the loss of meaningful activities, as well as the adverse effects of high staff turnover and the physical and mental health decline in the people they supported (Hall et al., 2022).

### **Purpose of the Study**

This study aimed to explore the self-reported mental and physical health consequences for DSPs and FLSs providing services and supports to individuals with IDD during the COVID-19 pandemic. The research questions included:

- 1. How were DSPs and FLSs impacted physically and mentally by the COVID-19 pandemic?
- 2. Are employers doing anything to help DSPs and FLSs deal with the physical and mental impacts of the COVID-19 pandemic?
- 3. Do DSPs and FLSs differ concerning the physical and mental health impact of the COVID-19 pandemic?
- 4. Do DSPs and FLSs differ regarding their perspective on employer support for the physical and mental impact of the COVID-19 pandemic?

### Method

**Measures** The Direct Support Workforce 24-month Follow-Up Survey was the fourth of a series of online surveys conducted during the COVID-19 pandemic. The survey was developed inhouse by the University of Minnesota in partnership with the National Alliance for Direct Support Professionals (NADSP). The first survey was conducted in April/May of 2020. The

fourth was conducted in the summer of 2022, about two years into the pandemic. The survey contained 70 items (including some skip patterns) covering respondent characteristics, wages and work hours, staffing, COVID-19 safety measures at the place of employment, vaccination experiences, health and well-being, the experiences of the individuals supported, use of technology during COVID-19, and demographic information and took 25-35 minutes to complete. The survey was anonymous and administered via Qualtrics (an online survey tool). Details about the survey and an access link were circulated on social media and posted on our website. It was also promoted and distributed to staff and disability organizations nationwide and other key contacts.

**Participants.** There were initially 4,049 surveys submitted in Qualtrics. Respondents were removed if they opened the survey link without answering any items, reported being DSPs or FLSs but answered less than 50% of the items or left the survey blank, reported they were not DSPs or FLSs, or if they lived outside the U.S. or its territories. This resulted in a convenience sample of

2,657 respondents covering nearly all U.S. states and the District of Columbia. Participation ranged from 400 respondents in one state to none in three states and the U.S. territories. More than three-quarters of states (76%) had between 1 and 100 respondents. Five percent of respondents did not list the state where they worked.

DSPs were defined as employees whose primary responsibilities included providing support, training, supervision, and personal assistance to people with developmental disabilities who spend at least 50% of their hours in direct support tasks. While they may perform some supervisory tasks, their job focuses on direct support work. FLSs were defined as employees whose primary responsibility (more than 50% of their role) is the supervision of DSPs. They may

perform direct support tasks, but their primary job is supervising employees and managing programs. Those who described themselves as something other than DSP or FLS were excluded from these analyses. The final analytic sample had 2,584 respondents.

Of the respondents in the analytic sample, 78% were DSPs, and 22% were FLSs. As seen in Table 1, over four-fifths (82%) identified as women. The average age was 47 years (SD = 13 years). Three-fourths (76%) identified as white, and 7% reported a Hispanic, Latino, or Spanish heritage. One-quarter (25%) had a 4-year college degree or higher. Almost three-fourths (73%) were the primary wage earner in their households. Over half (51%) had an annual household income of \$40,000 to \$99,999. Over two-thirds (66%) of respondents provided most of their services in agency or facility sites, 24% in a family or individual's home, 8% in community employment or job sites, and 2% in other settings. Over two-thirds (69%) worked for their primary employer for more than 36 months. For this sample, gender and race percentages differ from the National Core Indicators State of the Workforce 2022 Survey where 69.8% of DSPs were female, and 43.6% and 34.1% were Black/African American and white, respectively (NCI-IDD, 2023).

	Insert Table 1	
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### **Variables**

Mental and Physical Health Experiences was a single item with 11 sub-categories:
 depression, anxiety, suicidal ideation, post-traumatic stress disorder, other mental health
 issues, sleep difficulties, physical or emotional burnout, physical health complications,
 loss of a loved one, other, and none. Respondents selected each experience that applied

- to them. An official diagnosis was not required, nor were definitions for terms provided. Each item was dichotomous and coded yes/no.
- Mental and Physical Health Experiences Affected Work was a single item asking how
  much the mental and physical health experiences affected their daily work. There were
  four options: a lot, some, a little, and not at all.
- Employer Support for COVID-19 Mental and Physical Health Experiences was a single item asking if the respondent's employer did anything to provide support to staff struggling with these mental and physical health experiences. There were three options: yes, no, and I don't know.
- Quality of Work Life Since the Beginning of the Pandemic was a single item asking if
  the respondent's work life had changed since the beginning of the COVID-19 pandemic.
   There were five options: much better, better, the same, worse, and much worse.
- Number of Additional Hours Worked Per Week Due to the Pandemic was a single item asking about additional hours currently being worked per week because of the pandemic. There were five options: none, 1-15 hours, 16-30 hours, 31-40 hours, 40+ hours.
- **Pressure to Work More Hours** was a single item asking if the respondent felt frequent pressure to work more hours or pick up additional days. There were three options: yes, no and I don't know.
- Schedule and Responsibility Changes was a single item asking if the respondent's schedule and responsibilities differed from before the pandemic. There were three options: yes, no and I don't know.

### **Analysis**

Analyses were conducted using SPSS version 27 (IBM Corporation, 2020). Descriptive statistics were generated via frequency distributions. Crosstabulation tables with Chi-square tests ( $\chi^2$ ) and t-tests were run to examine differences between DSPs and FLSs. Analyses were evaluated at alpha level ( $\alpha = 0.05$ ).

### Results

Over two years into the pandemic, 35% of DSPs and FLSs reported working an additional 1-15 hours a week, 16% an additional 16-30 hours, 7% an additional 31-40 hours, and 9% more than 40 additional hours a week. Only a third (33%) of DSPs and FLSs reported working no additional hours per week due to COVID-19. Over half (59%) reported frequently feeling pressured to work more hours or pick up additional workdays. And nearly two-thirds (63%) had different work schedules and responsibilities than before the pandemic.

## Impact of COVID-19 Pandemic on Direct Support Professionals and Frontline Supervisors Mental and Physical Health

On top of the work stressors described above, respondents self-reported experiencing mental and physical health impacts of COVID-19 (see Table 2). Over half (57%) reported anxiety, 56% physical or emotional burnout, 44% sleep difficulties, 41% depression, 25% loss of a loved one, 21% physical health complications, 10% had other mental health issues, 9% had post-traumatic stress disorder (PTSD), 4% had considered suicide, and 4% reported another option not listed. Additional concerns noted were worry or heartbreak, weight gain, tiredness or fatigue, stress, restricted life out of work, relationship issues, loss of a client, being less active, isolation or loneliness, catching COVID-19, financial stress, fear, family issues, and anger, frustration or irritation. Sixteen percent of respondents did not report any of these experiences.

Insert Table 2

## Employer Efforts to Deal with COVID-19 Pandemic Impact on Direct Support Professionals and Frontline Supervisors Mental and Physical Health

Those respondents who reported any of these mental or physical impacts of COVID-19 were also asked how much they affected their daily work life. Six percent reported not at all, 17% a little, 44% some, and 33% a lot (see Table 3). Nearly half indicated that their work life was worse (36%) or much worse (11%) since the beginning of COVID-19, with 34% saying it was the same, 15% better, and 4% much better. When asked if their employer did anything to support staff struggling with these issues, 39% said yes, 32% said no, and 29% did not know.

Insert Table 3

Differences Between Frontline Supervisors and Direct Support Professionals Concerning Mental and Physical Health Impacts of COVID-19

Mental and physical health experiences during COVID-19 were compared for DSPs and FLSs. Variables included experiencing a self-reported mental or physical health issue (depression, anxiety, suicidal ideation, post-traumatic stress disorder, other mental health issues, sleep difficulties, physical and/or emotional burnout, physical health complications, loss of a loved one, and/or another experience not listed). Table 4 shows significant differences between FLSs and DSPs in several mental and health experiences. FLSs had a significantly higher percentage (65%) of anxiety than DSPs (54%; p < 0.001). FLSs (69%) also had a significantly higher percentage of physical or mental burnout than DSPs (52%; p < 0.001). There were

significant differences between FLSs and DSPs concerning sleep difficulties (p < 0.001). FLS (54%) had a significantly higher percentage of sleep difficulties than DSPs (41%). FLSs indicated a significantly higher percentage of physical health complications compared to DSPs (25% vs. 19%; p = 0.002). There were statistically significant differences between FLSs and DSPs on other mental health issues (p = 0.005). FLSs had a significantly higher percentage with other mental health issues (12% vs. 9%).

Insert Table 4

Differences Between Frontline Supervisors and Direct Support Professionals on Employer Support for Mental and Physical Health Impacts of COVID-19

Those respondents who indicated they had been impacted by one or more mental or physical health experiences due to COVID-19 were asked how that affected their daily work. As shown in Table 5, there were significant differences between FLSs and DSPs (p < 0.001). FLSs had a higher percentage of reporting "a lot" of impact (39% vs. 32%), while DSPs had higher percentages of "a little" impact (18% vs. 13%) and "not at all" (7% vs. 2%). There were significant differences between FLSs and DSPs in the perceived quality of their work life since the pandemic's beginning (p < 0.001). FLSs had significantly lower percentages of respondents who reported that their quality of work life was "much better" (3% vs. 5%) and "the same" (23% vs. 37%). FLSs also had significantly higher percentages of feeling the quality of their work life was "worse" (43% vs. 34%) and "much worse" (17% vs. 9%). There were also significant differences between FLSs and DSPs on whether they reported their employer-provided support for staff dealing with mental and physical health experiences (p < 0.001). FLSs had a

significantly higher percentage who indicated employer-provided support for staff dealing with mental and physical health experiences (51% vs. 36%). In comparison, DSPs were more likely not to know if their employer provided support for staff dealing with mental and physical health experiences (32% vs. 16%).

Insert Table 5

### **Discussion**

More than 8 of 10 (85%) of DSP and FLS participants self-reported some negative physical or mental health outcome two years into the pandemic. They identified experiences ranging from stress to anxiety, depression, PTSD, and physical and mental burnout, indicating a workforce that was seriously strained by the responsibilities they faced during the pandemic. This is likely one explanation for the number of direct support workers who left the field. The 2021 National Core Indicators State of the Workforce Survey found a turnover rate of 43.3% (NCI-IDD, 2022). Before the COVID-19 pandemic, a workforce study found that FLS turnover rates were 12% (Bogenschutz et al., 2014). The authors could not locate an updated FLS turnover rate from during the pandemic.

While more than half of both DSPs and FLSs self-reported significant mental and physical health effects such as burnout, anxiety, or sleep problems, FLS were much more likely to report these problems. Further, FLSs were more likely than DSPs to report that their work-life quality was worse and that their physical and mental health affected their work. The cumulative effect of high demands likely contributed to FLSs experiencing higher levels of physical and mental health issues during the pandemic. It is likely that FLS continue to be called on to cover

shifts due to the ongoing shortage of DSPs, meaning that they are likely still experiencing stress related to fulfilling their role in addition to covering providing direct supports.

FLS were more likely than DSPs to report that their employer provided some kind of support. Conversely, DSPs were more likely to report that they didn't know if there were supports available. This difference may indicate poor communication with DSPs about employer-provided benefits, or differences could be related to access to benefits between part-time and full-time employees or to salaried and hourly employees. Investigating access to benefits was beyond the scope of this survey. Regardless, the results show that most of the workforce does not have access to support to manage their work-related mental and physical health effects either because they are not offered or because they are unaware of them. Given the high rates of mental and physical health concerns, it is important that employers provide supports to help mediate the effects of these challenges faced by DSPs and FLSs on their work performance and ability to stay in their positions.

It is clear from self-reports of mental and physical health experiences and turnover rates that the pandemic exacerbated the workforce crisis and shortage of DSPs, and attempts to stabilize the workforce need to acknowledge the additional challenges to the workforce since the beginning of the COVID-19 pandemic. The official end of the public health emergency does not mean that the workforce nor the individuals being supported have recovered from the experience. While there was high turnover during the pandemic, significant numbers of DSPs and FLSs still in the workforce worked through the pandemic. Efforts to ensure that they receive appropriate supports to recover from the experience are important. In addition, FLSs are often overlooked but also require support and attention, given the importance of their role. Workforce research

and interventions related to FLSs needs to be improved and is an area that deserves further attention.

### Recommendations

Campbell (2021) noted that an expected 2.8 million job vacancies will occur in the direct support workforce in the next decade from people leaving the field. Addressing the reasons for leaving is crucial to stabilizing the workforce. Lack of pay and benefits have long been identified as an important, if not the most important reason for turnover (e.g., Houseworth et al., 2020). However, there is also an association between job burnout and turnover (Ejaz et al.,2015). The results of this study show that addressing burnout and secondary trauma stress (STS) is imperative to stopping or, at a minimum, slowing down the exit of DPSs and FLSs from the workforce. This study did not examine specific interventions, policies, or practices that have shown some success in reducing stress and burnout. However, a growing body of literature identifies potentially effective practices. These include ensuring that FLSs have the skills they need to provide support to DSPs and identifying practices that build DSP resilience and promote wellness.

### **Improved Support and Supervision**

A study of 323 DSPs had three findings related to reducing stress (Gray-Stanley et al., 2010). Supervisor support and co-worker support both lessened the amount of stress reported. Because supervisors generally assign work roles and tasks, supervisor support was associated with lower workload-related stress (Gray-Stanley et al., 2010). Co-worker support was related to lower client-related stress (Gray-Stanley et al., 2010). When FLSs perform direct support work rather than duties related to their supervisory role, team functioning and communication is

negatively affected (Hall et al., 2022). Ensuring FLSs have the support they need to do their work will ultimately benefit DSPs and those receiving support.

Many FLSs are promoted to this position with little training (Hewitt et al., 2004). Competency-based training for FLS is critical to addressing DSP work-related stress (Pryce et al., 2004). Because self-efficacy is associated with better outcomes related to stress and burnout, increasing skills may also reduce FLS stress and burnout. A study of human services workers found that participatory management practices were beneficial to a feeling of empowerment in the direct service workforce (Wallach & Mueller, 2006). Participatory management styles would give DSPs a role in solving problems and decision-making related to policies and practices, particularly those that affect their day-to-day work roles and expectations.

### **Promoting Resilience and Well-being**

Psychological capital (self-efficacy, optimism, hope, and resilience) increased psychological well-being for DSPs (Manzano-Garcia & Ayala, 2017). Having problem-focused coping strategies, rather than avoidance-focused and maladaptive coping strategies, has been associated with a greater sense of personal accomplishment, less depersonalization, and less stress in DSPs (Couderc et al., 2023; Nevill & Havercamp, 2019) highlighting the need for recognizing the stress related to relationship-focused work (Zapf et al., 2001). In interviews of 10 DSPs identified as resilient by their peers, factors that supported their resilience were identified and included things such as communication, self-worth, having equitable relationships, setting boundaries, embracing change and learning, having an intentional mindset, self-care, spirituality, and having humor and fun (Derosches & Tyo, 2023). Many of the practices identified in this study are skills that can be learned and practiced, providing a possible roadmap to effective tools and interventions to address DSP and FLS resilience and wellness. For example, mindfulness

practices were found to be protective against burnout in the DSP workforce working with individuals with behavioral support needs (Nevill & Havercamp, 2019)

Programs that promote well-being may be beneficial, but addressing the lack of benefits is fundamental to promoting the overall well-being of the direct support workforce. DSPs may benefit from access to support and counseling, as has been recommended for direct support workers in other sectors (Clarke et al., 2020). Health insurance is critical to maintaining physical and mental health. Thus, employers of DSPs and FLSs must ensure that they offer health insurance that provides mental health and wellness support, is affordable to employees in these positions, and is utilized by those who are eligible to participate.

#### Limitations

There are several limitations of this study. While the sample was large, it was a convenience sample which may limit the generalizability of the findings. The participants' tenure was longer than expected, which may affect their experiences, particularly related to mental and physical health outcomes. Study involvement by people of color was lower than anticipated compared to other studies. Participation was mainly by individuals working in group settings; therefore, understanding the experiences of the workforce employed in self-directed or individualized settings is limited. Respondents were not provided definitions of terms for mental health experiences, so there may have been differing perspectives of what these meant as a clinical diagnosis was not required. Lastly, study respondents were not asked to identify specific supports their employer made available to them regarding their mental and physical health experiences. This would have helped to clarify the extent of help from employers.

### Conclusion

The challenging working conditions FLSs and DSPs experienced during the pandemic exacerbated the already present negative effects ineffective supervision and other working conditions had

on the physical and mental health of the direct support workforce. Stress and burnout existed before the pandemic and continues to exist after the pandemic. Despite the pandemic's end, the workforce is still struggling and ongoing efforts need to be made to stabilize the workforce. The promise of full inclusion and participation in one's community is not possible without a robust, well-trained workforce.

Programmatic and policy changes aimed at creating trauma-informed organizations and addressing other factors related to stress and burnout are essential to stabilizing an essential workforce.

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Table 1 Demographic Description of Participants

Gender	N	%
Women	1,732	82.0
Men	341	16.0
Non-binary	23	1.0
Prefer to self-describe	13	<1.0
Total	2,109	100.0
Race		
American Indian/Native American	41	2.0
Asian	37	2.0
Black/African American	276	13.0
White	1,571	76.0
Some other race, not listed	39	2.0
Two or more races	96	5.0
Total	2,060	100.0
Hispanic, Latino, or Spanish Heritage		
Yes	144	7.0
No	1,898	93.0
Total	2,042	100.0
Education Level		
Less than high school	38	2.0
High school diploma or GED	635	29.0
Associate or 2-year degree	365	17.0
Some college	588	27.0
BA/BS or 4-year degree	408	18.0
Post-graduate education	167	7.0
Total	2,201	100.0
Primary Wage Earner		
Yes	1,872	73.0
No	701	27.0
Total	2,573	100.0
Annual Household Income		
\$14,999 or less	72	4.0
\$15,000 to \$21,999	131	7.0
\$22,000 to \$39,999	554	28.0
\$40,000 to \$99,999	1,006	51.0
\$100,000 or more	192	10.0
Total	1,955	100.0
Primary Service Site		

Agency/Facility Site	1,691	66.0
Family or individual home(s)	630	24.0
Community employment/Job site(s)	209	8.0
Other Site	50	2.0
Total	2,580	100.0
Length of employment at Primary Employer		
Less than 6 months	149	6.0
6 months − 12 months	198	8.0
12 months – 24 months	226	9.0
24 months – 36 months	220	8.0
More than 36 months	1,784	69.0
Total	2,577	100.0
Average age 47 years (SD = 13 years)		

Table 2 Direct Support Professionals (DSPs) and Frontline Supervisors (FLSs) Mental and Physical Health Experiences Due to COVID-19

Mental and Physical Health Experiences	N	%
Anxiety	1,409	57.0
Physical and/or emotional burnout	1,380	56.0
Sleep difficulties	1,084	44.0
Depression	1,007	41.0
Loss of a loved one	628	25.0
Physical health complications	509	21.0
Other mental health issues	235	10.0
Post-traumatic stress disorder (PTSD)	223	9.0
Suicidal ideation	97	4.0
Other	97	4.0

*Note:* N=2,482; Respondents could choose more than one option, so percentages add to greater than 100.

Table 3 Work Status and Employer Support for Direct Support Professionals (DSPs) and Frontline Supervisors (FLSs)

Mental and physical issues due to COVID-19		
affect daily work	N	%
Not at all	114	6.0
A little	334	17.0
Some	872	44.0
A lot	660	33.0
Total	1,980	100.0
Work life change since beginning of COVID-		
19		
Much better	109	4.0
Better	349	15.0
The same	800	34.0
Worse	858	36.0
Much worse	268	11.0
Total	2,384	100.0
Employer support for staff with mental and		
physical issues due to COVID-19		
Yes	778	39.0
No	640	32.0
Don't know	565	29.0
Total	1,983	100.0

Table 3. Comparisons between Direct Support Professionals (DSPs) and Frontline Supervisors (FLSs) on Mental and Physical Health Experiences Due to COVID-19

Anxiety         N         %         N         %         χ²           Yes         1,044         54.0         a 365         65.0         b 21.373**           Not selected         879         46.0         a 194         35.0         b           Physical and/or emotional burnout         N         %         N         %         χ²           Yes         993         52.0         a 387         69.0         b 54.300**           Not selected         930         48.0         a 172         31.0         b           Steep difficulties         N         %         N         %         χ²           Yes         785         41.0         a 299         54.0         b 28.248**           Not selected         1,138         59.0         a 260         46.0         b 28.248**           Not selected         1,138         59.0         a 260         46.0         b 28.248**           Not selected         1,138         59.0         a 244         44.0         a 2.834           Total         1,923         100.0         559         100.0         t           Loss of a loved one         N         %         N         %         χ²	Mental or physical health experiences	DS	Ps	FLSs				
Yes         1,044         54.0         a         365         65.0         b         21.373**           Not selected         879         46.0         a         194         35.0         b         -           Total         1,923         100.0         559         100.0         ×2           Physical and/or emotional burnout         N         %         N         %         52.0         a         387         69.0         b         54.300**           Yes         993         52.0         a         387         69.0         b         54.300**           Not selected         930         48.0         a         172         31.0         b         72           Total         1,923         100.0         559         100.0         2         22           Yes         785         41.0         a         299         54.0         b         22.248**           Not selected         1,138         59.0         a         260         46.0         b         22.248**           Yes         763         40.0         a         244         44.0         a         2.834           Not selected         1,160         60.0         a <td>Anxiety</td> <td>N</td> <td>%</td> <td></td> <td>N</td> <td>%</td> <td></td> <td><math>\chi^2</math></td>	Anxiety	N	%		N	%		$\chi^2$
Total         1,923         100.0         559         100.0         γ           Physical and/or emotional burnout         N         %         N         %         χ²           Ycs         993         52.0         a         387         69.0         b         54.300**           Not selected         930         48.0         a         172         31.0         b           Total         1,923         100.0         559         100.0         2           Sleep difficulties         N         %         N         %         χ²           Ycs         785         41.0         a         299         54.0         b         28.248**           Not selected         1,138         59.0         a         260         46.0         b         22.248**           Not selected         1,138         59.0         a         260         46.0         b         2.2344**           Yes         763         40.0         a         244         44.0         a         2.834           Not selected         1,160         60.0         a         315         56.0         a           Total         1,923         100.0         559	Yes	1,044	54.0	a	365	65.0	b	
Physical and/or emotional burnout         N         %         N         %         χ²           Yes         993         52.0         a         387         69.0         b         54.300***           Not selected         930         48.0         a         172         31.0         b           Total         1,923         100.0         559         100.0         2           Sleep difficulties         N         %         N         %         χ²           Yes         785         41.0         a         299         54.0         b         28.248***           Not selected         1,138         59.0         a         260         46.0         b         Total         1,923         100.0         559         100.0	Not selected	879	46.0	a	194	35.0	b	
Yes         993         52.0         a         387         69.0         b         54.300***           Not selected         930         48.0         a         172         31.0         b           Total         1,923         100.0         559         100.0         c           Sleep difficulties         N         %         N         %         N         ½           Yes         785         41.0         a         299         54.0         b         28.248**           Not selected         1,138         59.0         a         260         46.0         b           Total         1,923         100.0         559         100.0         £         22         22           Yes         763         40.0         a         244         44.0         a         2.834           Not selected         1,160         60.0         a         315         56.0         a         2.834           Total         1,923         100.0         559         100.0         £         2.2         Yes         491         25.0         a         137         24.0         a         0.241         Not selected         1,432         75.0         a	Total	1,923	100.0		559	100.0		
Not selected         930         48.0         a         172         31.0         b           Total         1,923         100.0         559         100.0         ***           Sleep difficulties         N         %         N         %         L           Yes         785         41.0         a         299         54.0         b         28.248***           Not selected         1,138         59.0         a         260         46.0         b         28.248***           Not selected         1,923         100.0         559         100.0         ***         72           Yes         763         40.0         a         244         44.0         a         2.834           Not selected         1,160         60.0         a         315         56.0         a         2           Total         1,923         100.0         559         100.0         **         **           Yes         491         25.0         a         137         24.0         a         0.241           Not selected         1,432         75.0         a         422         76.0         a           Total         1,923         100.0	Physical and/or emotional burnout	N	%		N	%		$\chi^2$
Total         1,923         100.0         559         100.0           Sleep difficulties         N         %         N         %         χ²           Yes         785         41.0         a         299         54.0         b         28.248**           Not selected         1,138         59.0         a         260         46.0         b           Total         1,923         100.0         559         100.0         √²           Yes         763         40.0         a         244         44.0         a         2.834           Not selected         1,160         60.0         a         315         56.0         a         36.0         a         26.0         a         1.00.0         559         100.0         1.00.0         2.2834         Not selected         1,160         60.0         a         315         56.0         a         2.834         Not selected         1,923         100.0         559         100.0         100.0         100.0         2.2834         Not selected         1,432         75.0         a         422         76.0         a         2.241         Not selected         1,523         100.0         559         100.0         10.0	Yes	993	52.0	a	387	69.0	b	54.300**
Sleep difficulties         N         %         N         %         χ²           Yes         785         41.0         a         299         54.0         b         28.248**           Not selected         1,138         59.0         a         260         46.0         b           Total         1,923         100.0         559         100.0         2           Perssion         N         %         N         %         χ²           Yes         763         40.0         a         244         44.0         a         2.834           Not selected         1,160         60.0         a         315         56.0         a           Total         1,923         100.0         559         100.0         10.0           Loss of a loved one         N         %         N         %         χ²           Yes         491         25.0         a         137         24.0         a         0.241           Not selected         1,432         75.0         a         422         76.0         a         72         16         10.0         N         %         N         %         χ²         100.0         100.0 <td< td=""><td>Not selected</td><td>930</td><td>48.0</td><td>a</td><td>172</td><td>31.0</td><td>b</td><td></td></td<>	Not selected	930	48.0	a	172	31.0	b	
Yes         785         41.0         a         299         54.0         b         28.248**           Not selected         1,138         59.0         a         260         46.0         b           Total         1,923         100.0         559         100.0           Depression         N         %         N         %         χ²           Yes         763         40.0         a         244         44.0         a         2.834           Not selected         1,160         60.0         a         315         56.0         a           Total         1,923         100.0         559         100.0         10.0           Loss of a loved one         N         %         N         %         χ²           Yes         491         25.0         a         137         24.0         a         0.241           Not selected         1,432         75.0         a         422         76.0         a           Total         1,923         100.0         559         100.0         10.0           Physical health complications         N         %         N         %         χ²           Yes         368	Total	1,923	100.0		559	100.0		
Not selected         1,138         59.0         a         260         46.0         b           Total         1,923         100.0         559         100.0           Depression         N         %         N         %         χ²           Yes         763         40.0         a         244         44.0         a         2.834           Not selected         1,160         60.0         a         315         56.0         a           Total         1,923         100.0         559         100.0         100.0           Loss of a loved one         N         %         N         %         χ²           Yes         491         25.0         a         137         24.0         a         0.241           Not selected         1,432         75.0         a         422         76.0         a         0.241           Physical health complications         N         %         N         %         χ²           Yes         368         19.0         a         141         25.0         b         9.843*           Not selected         1,555         81.0         a         418         75.0         b	Sleep difficulties	N	%		N	%		$\chi^2$
Total         1,923         100.0         559         100.0           Depression         N         %         N         %           Yes         763         40.0         a         244         44.0         a         2.834           Not selected         1,160         60.0         a         315         56.0         a           Total         1,923         100.0         559         100.0         100.0           Loss of a loved one         N         %         N         %         χ²           Yes         491         25.0         a         137         24.0         a         0.241           Not selected         1,432         75.0         a         422         76.0         a           Total         1,923         100.0         559         100.0         100.0           Physical health complications         N         %         N         %         χ²           Yes         368         19.0         a         141         25.0         b         9.843*           Not selected         1,555         81.0         a         418         75.0         b           Other mental health issues         N	Yes	785	41.0	a	299	54.0	b	28.248**
$\begin{array}{ c c c c c c c } \hline Depression & N & \% & N & \% & \chi^2 \\ \hline Yes & 763 & 40.0 & a & 244 & 44.0 & a & 2.834 \\ \hline Not selected & 1,160 & 60.0 & a & 315 & 56.0 & a \\ \hline Total & 1,923 & 100.0 & 559 & 100.0 \\ \hline Loss of a loved one & N & \% & N & \% & \chi^2 \\ \hline Yes & 491 & 25.0 & a & 137 & 24.0 & a & 0.241 \\ \hline Not selected & 1,432 & 75.0 & a & 422 & 76.0 & a \\ \hline Total & 1,923 & 100.0 & 559 & 100.0 \\ \hline Physical health complications & N & \% & N & \% & \chi^2 \\ \hline Yes & 368 & 19.0 & a & 141 & 25.0 & b & 9.843* \\ \hline Not selected & 1,555 & 81.0 & a & 418 & 75.0 & b \\ \hline Total & 1,923 & 100.0 & 559 & 100.0 \\ \hline Other mental health issues & N & \% & N & \% & \chi^2 \\ \hline Yes & 165 & 9.0 & a & 70 & 12.0 & b & 7.852* \\ \hline Not selected & 1,758 & 91.0 & a & 489 & 88.0 & b \\ \hline Total & 1,923 & 100.0 & 559 & 100.0 \\ \hline Post-traumatic stress disorder (PTSD) & N & \% & N & \% & \chi^2 \\ \hline Yes & 167 & 9.0 & a & 56 & 10.0 & a & 0.942 \\ \hline Not selected & 1,756 & 91.0 & a & 503 & 90.0 & a \\ \hline Total & 1,923 & 100.0 & 599 & 100.0 \\ \hline Suicidal Ideation & N & \% & N & \% & \chi^2 \\ \hline Suicidal Ideation & N & \% & N & \% & \chi^2 \\ \hline Suicidal Ideation & N & \% & N & \% & \chi^2 \\ \hline \\ Suicidal Ideation & N & \% & N & \% & \chi^2 \\ \hline \\ \hline \end{tabular}$	Not selected	1,138	59.0	a	260	46.0	b	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total	1,923	100.0		559	100.0		
Not selected         1,160         60.0         a         315         56.0         a           Total         1,923         100.0         559         100.0         Loss of a loved one         N         %         N         %         χ²           Yes         491         25.0         a         137         24.0         a         0.241           Not selected         1,432         75.0         a         422         76.0         a           Total         1,923         100.0         559         100.0         Physical health complications         N         %         N         %         χ²           Yes         368         19.0         a         141         25.0         b         9.843*           Not selected         1,555         81.0         a         418         75.0         b           Total         1,923         100.0         559         100.0         0           Other mental health issues         N         %         N         %         χ²           Yes         165         9.0         a         70         12.0         b         7.852*           Not selected         1,758         91.0	Depression	N	%		N	%		$\chi^2$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Yes	763	40.0	a	244	44.0	a	2.834
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Not selected	1,160	60.0	a	315	56.0	a	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total	1,923	100.0		559	100.0		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Loss of a loved one	N	%		N	%		$\chi^2$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Yes	491	25.0	a	137	24.0	a	0.241
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Not selected	1,432	75.0	a	422	76.0	a	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total	1,923	100.0		559	100.0		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Physical health complications	N	%		N	%		$\chi^2$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Yes	368	19.0	a	141	25.0	b	9.843*
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Not selected	1,555	81.0	a	418	75.0	b	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total	1,923	100.0		559	100.0		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Other mental health issues	N	%		N	%		$\chi^2$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Yes	165	9.0	a	70	12.0	b	7.852*
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Not selected	1,758	91.0	a	489	88.0	b	
Yes       167       9.0 a       56       10.0 a       0.942         Not selected       1,756       91.0 a       503       90.0 a       90.0 a         Total       1,923       100.0       599       100.0         Suicidal Ideation       N       %       N       %       χ²	Total	1,923	100.0		559	100.0		
Not selected       1,756       91.0 a       503 b       90.0 a         Total       1,923 b       100.0 b       599 b       100.0 b         Suicidal Ideation       N % N % χ²	Post-traumatic stress disorder (PTSD)	N	%		N	%		$\chi^2$
	Yes	167	9.0	a	56	10.0	a	0.942
	Not selected	1,756	91.0	a	503	90.0	a	
	Total		100.0		599	100.0		
Yes 70 4.0 a 27 5.0 a 1.633	Suicidal Ideation	N	%		N	%		$\chi^2$
	Yes	70	4.0	a	27	5.0	a	1.633

Not selected	1,853	96.0	a	532	95.0	a	
Total	1,923	100.0		559	100.0		
Other	N	%		N	%		$\chi^2$
Yes	74	4.0	a	23	4.0	a	0.082
Not selected	1,849	96.0	a	536	96.0	a	
Total	1,923	100.0		559	100.0		

Note. \*Indicates p<0.01, \*\* p<0.001; Subscript letters <sup>a</sup> and <sup>a</sup> in a row indicate column proportions do not differ significantly at the 0.05 level. Subscript letters <sup>a</sup> and <sup>b</sup> in a row indicate column proportions differ significantly at the 0.05 level. P-values in bold represent relationships that are significant at the 0.05 level.

Table 5. Comparisons between Direct Support Professionals (DSPs) and Frontline Supervisors (FLSs) on Work Status and Employer Support for Staff

Work Status	DS	SPs	FLSs				
Mental and physical health experiences							_
impact on daily work	N	%		N	%		$\chi^2$
A lot	476	32.0	a	184	39.0	b	23.159*
Some	652	43.0	a	220	46.0	a	
A little	270	18.0	a	64	13.0	b	
Not at all	103	7.0	a	11	2.0	b	
Total	1,501	100.0		479	100.0		
Quality of Work Life Since Beginning of COVID-19	N	%		N	%		$\chi^2$
Much better	93	5.0	a	16	3.0	b	63.448*
Better	275	15.0	a	74	14.0	a	
The same	677	37.0	a	123	23.0	b	
Worse	625	34.0	a	233	43.0	b	
Much worse	173	9.0	a	95	17.0	b	
Total	1,843	100.0		541	100.0		
Employer support for staff dealing with							_
mental and physical health experiences	N	%		N	%		$\chi^2$
Yes	534	36.0	a	244	51.0	b	55.112*
No	482	32.0	a	158	33.0	a	
Don't know	487	32.0	a	78	16.1	b	
Total Note of the control of the con	1,503	100.0		480	100.0	. 114	

Note. \* p<0.001; Subscript letters a and in a row indicate column proportions do not differ significantly at the 0.05 level. Subscript letters <sup>a</sup> and <sup>b</sup> in a row indicate column proportions differ significantly at the 0.05 level. P-values in bold represent relationships that are significant at the 0.05 level.