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Early childhood educators’ psychological distress and wellbeing during the COVID-19 pandemic

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A B S T R A C T

There is growing awareness of the impacts of COVID-19 on children, families, and more recently, early childhood educators. This study aimed to add to this research and explore Australian early childhood educators’ psychological distress and wellbeing in relation to COVID-19. Accordingly, 205 educators (117 early childhood educators, 86 leaders and 2 others) completed the Impact of Event Scale-Revised, measuring levels of post-traumatic distress, and an open-ended question on wellbeing, both in relation to COVID-19. Educators’ responses to the open-ended question were matched to those who scored high, medium, and low on the Impact of Events Scale-Revised. Results demonstrated 66.8% of educators scored in the low range for post-traumatic distress, 11.7% scored in the moderate range, and 21.5% scored in the high range for post-traumatic distress on the Impact of Events Scale-Revised. Participants scoring in the low range on the Impact of Events Scale-Revised provided fewer comments regarding the emotional impacts of COVID-19. There were no differences between the groups in terms of fear of COVID-19 infection, challenges related to increased workload during the pandemic, and frustration with the Australian government response to COVID-19. Educators and early childhood leaders reported comparable wellbeing challenges during the pandemic. This research has implications for the types of support provided to educators during future pandemics.

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1. Introduction

COVID-19 was first reported in December 2019 in Wuhan City, China (World Health Organization [WHO], 2021a). COVID-19 is a highly infectious respiratory illness resulting in symptoms of fever, coughing, and shortness of breath (WHO, 2021b). Since the beginning of the outbreak to the end of July 2021, COVID-19 has resulted in 196,553,009 global cases and 4,200,412 deaths around the world (WHO, 2021c). In addition, people with prior medical conditions and the elderly are known to be more likely to develop serious illness and die because of COVID-19, compared to younger people and people without chronic health conditions (WHO, 2021b). However, people without underlying health conditions, including young children, have become very ill and died as a result of COVID-19, potentially increasing stress and anxiety for early childhood educators and teachers.

In response, the first vaccines for the virus were delivered to older adults and medical professionals in late 2020, in countries with high infection and mortality rates (BBC, 2020a; Guarino et al., 2020). In Australia, which has experienced lower infections and fewer deaths compared to other countries, COVID-19 vaccinations started in February 2021 (Hitch, 2021). Other methods to prevent spread of the virus in Australia and worldwide have included self-isolation, mandatory quarantining, social distancing, face coverings, and school closures (Centers for Disease Control and Prevention [CDC], 2020). However, fear of infection and quarantining increases psychological distress of adults and children in the community (Berger et al., 2021; Brooks et al., 2020).

1.1 Psychological impact of COVID-19

Wang et al. (2020) explored the psychological implications of COVID-19 on adults in China and found the outbreak resulted in moderate to severe stress, depression, and anxiety. In a systematic review, Brooks et al. (2020) reported heightened post-traumatic stress symptoms, confusion, and anger among adults quarantined due to coronavirus. A similar review found children also experience post-traumatic distress, depression, anxiety, stress, and loneliness from coronavirus (Berger et al., 2021). The pandemic has also increased rates of parental mental illness, substance abuse, and fam-
ily violence (Campbell, 2020; Humphreys et al., 2020). This body of research demonstrates the increased stress and anxiety experienced by children and families during COVID-19.

Within Australia, center-based childcare is offered to children from as young as 6 weeks of age. Children can then attend 3-year-old and 4-year-old kindergarten programs facilitated by educators. While kindergarten programs typically run-on set days and between set times, many early childhood education centers integrate kindergarten programs into full-day care programs, which play a significant role in supporting families (Victorian Government, 2021). It is well-documented that the wellbeing of early childhood educators can influence educators’ ability to provide optimal and quality care for the children and families in their programs (Cumming, 2017; McMullen, et al., 2020). Researchers have identified several factors that influence wellbeing of early childhood educators, including workload stress, lack of community recognition of their role, and emotional labor of caring for children and families (Hine et al., 2022; Quinones et al., 2021). However, research on educator wellbeing and levels of mental distress during pandemics is limited.

1.2 COVID-19 and the impact on educators

Across Norway, Sweden, and the United States, Pramling Samuelsson et al. (2020) found educators had difficulty balancing their wellbeing with the wellbeing of families and children during COVID-19, and noted the additional workload of preventing an outbreak in their education setting. Likewise, a study into the effects of COVID-19 for early childhood settings in the Asia-Pacific, including Australia, described the pandemic as causing considerable distress and uncertainty for children, families, and educators, as well as adding to the workload and financial insecurity of educators and services (Park et al., 2021). Park et al. (2021) cited several other challenges for Australian educators during the pandemic, such as their reduced contact with parents, adherence to strict hygiene regimens, and adoption of online teaching, while, at the same time, educators endeavored to provide stable, safe, and predictable routines and care for children.

A recent study of Italian school teachers during COVID-19 found teachers with low levels of baseline resiliency experienced heightened symptoms of anxiety, depression, stress, and burnout during the pandemic compared to teachers with higher baselines of resiliency (Matiz et al., 2020). A further study by Flack et al. (2020) indicated that some primary and high school teachers across Australia and New Zealand experienced anxiety regarding the impact of distance learning on their relationships with students. Teachers held concerns regarding their limited capacity to adequately support the individual learning needs of children during remote learning. They also noted a significant increase in workload under remote learning and challenges associated with balancing the learning and emotional needs of their own children (Flack et al., 2020).

In response to COVID-19 and changes in the early childhood sector, one United States study by Kim (2020) reported numerous adaptations pre-service early childhood educators made while providing online teaching. On one hand, online teaching allowed early childhood educators to remain connected with the children in their programs and continue to develop children’s learning and development. However, engagement in online platforms varied based on educators’ and children’s technological proficiencies and whether children had adult supervision and involvement while learning (Kim, 2020). Educators reported frustration associated with adapting programs based on changes related to the pandemic; however, no further evaluation of the mental health impacts of the pandemic on educators was mentioned (Kim, 2020).

1.3 Dual continuum theory of mental health

The dual continuum theory of mental health was used to frame this research. The dual continuum theory describes the interaction between mental illness and wellbeing and classifies people at any one time into 1 of 4 quadrants. These include: (1) a person with high wellbeing and low level of mental illness; (2) someone with high wellbeing but high level of mental illness; (3) a person with low wellbeing and experiencing mental illness; and (4) a person with low wellbeing but not experiencing mental illness (Suldo & Shaffer, 2008). For example, someone with a mental illness may experience stages of wellbeing, while someone else with a mental illness may experience poor wellbeing. Likewise, a person without a mental illness may experience optimal wellbeing and thrive from adversity (Suldo & Shaffer, 2008). We adopted the dual continuum model using both a measure of mental illness (the Impact of Events Scale-Revised [IES-R]) and a measure of wellbeing (open-ended question) to explore the interaction between these 2 psychological states among educators and leaders in the context of COVID-19. The purpose of this research was to provide recommendations for policies and practices that might promote educator wellbeing and mental health during future pandemics and other adverse events.

1.4 Aim of the study

Based on the impact of COVID-19 on wellbeing of children, parents, and early childhood educators, this study provides a timely contribution by evaluating levels of post-traumatic stress and wellbeing of Australian educators during the pandemic. This study is one of the first to evaluate the mental health and wellbeing impacts of COVID-19 on early childhood educators (of children aged 0–5 years) in Australia, using both quantitative and qualitative data. The current study aimed to quantify levels of post-traumatic distress among educators exposed to COVID-19 using the IES-R. Further, this study explored whether there were differences between the post-traumatic distress levels (using the IES-R) of educators and early childhood leaders (senior staff and management), and between participants with different years of experience in early childhood settings.

Research has consistently shown that less experienced educators are not as equipped to manage adversity experienced by children and families compared to more experienced educators (Alisic, 2012; Davies & Berger, 2019). Thus, less experienced educators were anticipated to experience worse mental health and wellbeing outcomes from COVID-19 related to more experienced staff. This study also explored educator and leaders’ responses to an open-ended question about their wellbeing to understand how the views and perspectives of participants differed between those with low, moderate, and high levels of post-traumatic distress (as measured by the IES-R). It was anticipated that educators with high post-traumatic distress on the IES-R would report poorer wellbeing in response to the pandemic.

2. Method

This study replicated prior research on the psychological impact and experiences of adults following adverse events (e.g., Maybery et al., 2020). Specifically, the quantitative aspect of this study aimed to quantify the post-traumatic impact of COVID-19 for early childhood educators and leaders in Australia, while the qualitative component intended to illustrate educators’ and leaders’ wellbeing related to COVID-19. To the authors’ knowledge, a study examining both post-traumatic stress symptoms and wellbe-
ing of early childhood staff regarding COVID-19 has not been conducted.

2.1 Participants and recruitment

Participants were early childhood educators and leaders working in early childhood educational settings in Australia. Participants were recruited through social media platforms (e.g., Twitter, Facebook) and by using snowball sampling. Participants were asked to complete a survey and/or participate in an interview regarding their experiences during COVID-19. This paper provides the results from the survey component of the study. Survey data were collected during the month of July 2020.

At the time of data collection, there were differences between the states and territories in Australia regarding the types of COVID-19 restrictions in place. The restrictions included only being allowed to leave one’s own home to shop for essential supplies, to access medical care, assume caring responsibilities, or to exercise. Other public health measures included physical distancing, use of facemasks in public, and closure of schools and nonessential businesses (Berger & Reupert, 2020). The state of Victoria was especially impacted, with an outbreak in July 2020 that resulted in further restrictions, including a nighttime curfew, a one-hour limit on outdoor exercise, a ban on travelling more than 5 km from home, and continued closure of schools and nonessential businesses (BBC, 2020b). However, at the time of data collection, there were no differences across the states and territories regarding operation of early childhood services (Australian Government, 2021).

Early childhood educators provided simultaneous face-to-face and online learning to cater for families choosing to send their children to centers (or for children of essential workers) and for other families deciding to keep their children at home.

Most participants were female (n = 202, 98.5%) compared to males (n = 3, 1.5%). The highest qualification of participants was a Diploma (n = 87, 42.4%), followed by a Bachelor degree (n = 51, 24.9%), Postgraduate or Honours degree (n = 32, 15.6%), Masters degree (n = 10, 11.3%), Certificate (n = 7, 3.4%), other degree (n = 4, 2.4%), or year 12 qualification or below (n = 5, 2.5%), and a PhD or Doctorate (n = 2, 1.0%). One hundred and seventeen (57.1%) participants were educators (including assistant educators or casual educators), 86 (42.0%) were center and curriculum leaders, directors or coordinators, and 2 (1.0%) participants did not fall into the category of educator or center leader (listed as approved provider and early childhood consultant).

Participants were aged from 22–66 years (M = 45.51; SD = 10.96) and had worked in early childhood for between one and 47 years (M = 18.13; SD = 10.18). Most participants were born in Australia (n = 154, 75.1%), New Zealand (n = 48, 23.4%), and 3 were born in other countries (1.5%). Two participants (1.0%) identified as Aboriginal and 203 (99.0%) identified as non-Aboriginal. No participant identified as Torres Strait Islander.

2.2 Measures

Demographic questions. The questionnaire included demographic items including participants’ age, gender, country of birth, whether they identified as Aboriginal or Torres Strait Islander, education level and role working in early childhood education.

Impact of events scale-revised. Participants completed the Impact of Events Scale-Revised (IES-R) (Weiss & Marmar, 1997). The IES-R is a commonly used tool to measure post-traumatic distress of adults exposed to potentially distressing events (e.g., Maybery et al., 2020). The IES-R includes 22 items, scored on a Likert scale from zero (Not at all) to 4 (Extremely). Participants were asked to respond to the 22 items after the following prompt: “During the past 7 days, in regard to COVID-19, how much were you distressed or bothered by these difficulties?” The various difficulties reflected in the IES-R represent the symptoms of post-traumatic stress disorder (PTSD) (American Psychiatric Association [APA], 2013), including intrusive thoughts (e.g., having unwanted thoughts about COVID-19), arousal experiences (e.g., being easily startled or on high alert), and avoidance symptoms (e.g., avoiding reminders of COVID-19).

Scores on the IES-R can range between 0–88, with research showing that a score from 24–32 indicates possible risk of PTSD and scores of 33 or more suggest probable PTSD (Asukai et al., 2002; Creamer et al., 2003). In the present study, these cut off points were used to identify participants reporting low or no symptoms of post-traumatic stress (IES-R score below 24), moderate symptoms of post-traumatic stress (IES-R score from 24–32), and high symptoms of post-traumatic stress (IES-R score of 33 or more). Internal consistency of the IES-R was assessed using Cronbach’s alpha. The IES-R total score showed very good internal consistency with Cronbach’s alpha being 0.96 (Cronbach, 1951). Previous research has found the IES-R total score has high internal consistency (i.e., Cronbach Alpha = 0.95) (Beck et al., 2008). Despite strong validation of the IES-R among adult populations and people in helping professions, there has been limited application of this survey with teachers and educators. The IES-R has recently shown high internal consistency (Cronbach alpha = 0.95) in research on the psychological impacts of COVID-19 on health care populations (Ali et al., 2020).

Open-ended question. To explore the wellbeing experiences of participants in relation to COVID-19, and compare these experiences for participants reporting low, moderate, and high symptoms of PTSD (based on IES-R scores), and between educators and early childhood leaders, participants were invited to respond to the following open-ended question in the survey: “How has COVID-19 impacted your emotional wellbeing, if at all?”

2.3 Procedure

Approval for this project was obtained from the Monash University Human Research Ethics Committee (project approval number: 25217). Following social media advertising, interested participants were invited to read the explanatory statement and complete the online questionnaire. The online recruitment process does not allow for tracking of participation rates. The survey was anonymous and participants were encouraged to contact a telephone crisis helpline if they experienced distress as a result of completing the online questionnaire.

2.4 Study design and analysis

Statistical analysis was performed using IBM (2017) SPSS. Missing data on the IES-R were analyzed and the largest proportion of missing data was 2.3% for 4 items of the IES-R (Items 11, 14, 16 and 18). Little’s test for missing completely at random was conducted and was found to be nonsignificant across the IES-R (P > .5) (Little, 1988). As missing data were missing completely at random, and because the percentage of missing data was below 5%, complete case analysis was used when analyzing the IES-R data (Dong & Peng, 2013).

Descriptive statistics were used to analyze participant demographics and scores on the IES-R. Participants’ responses on the IES-R were analyzed through descriptive statistics to explore the percentage of participants who scored in the low, moderate, and high range for post-traumatic distress related to COVID-19. To explore the difference between educators and center leaders (including center directors, curriculum leaders and center coordinators) on scores on the IES-R, an independent samples t-test was conducted. A Spearman’s rho correlation analysis was also conducted.
to explore the relationship between years working in early education and participants’ IES-R scores.

Responses to the open-ended item were analyzed using thematic analysis. Thematic analysis is a useful qualitative analytic approach for organizing and analyzing large data sets, generated from responses to open-ended questions, rather than through prolonged individual interviews (Braun & Clarke, 2006; Ryan & Bernard, 2000). In this study, thematic analysis involved one of the researchers reading and rereading participants’ responses, generating themes and identifying patterns within the data, and developing a final set of themes that represented the views and experiences of participants (Braun & Clarke, 2006). This researcher led the analysis and the remaining researchers collaborated on the final set of themes. Two researchers (including the researcher who developed the initial themes) then coded participants’ responses together based on whether or not participants endorsed each theme. Both of the coders are registered psychologists with the Psychology Board of Australia, experienced qualitative researchers, and of European ancestry. The researchers were not aware of the IES-R scores of participants during the thematic coding process.

The qualitative responses of participants from the open-ended question were then compared between participants based on whether they presented in the low, moderate, and high-risk group for post-traumatic distress (based on scores on the IES-R). Chi square tests were utilized to compare educators and early childhood leaders according to whether participants endorsed the themes generated from the thematic analysis. A series of $2 \times 3$ Fisher’s exact tests then compared the IES-R groups (i.e., low moderate and high post-traumatic stress groups) according to whether participants endorsed the themes from the thematic analysis. A dummy variable was created for the Chi square and Fisher’s exact tests, coded as one (participant mentioned theme) and zero (participant did not mention theme). Fisher’s exact tests were used as an alternative to Chi square tests when cells in the analysis had an expected frequency of less than 5, violating the assumption of Chi square. The combination of qualitative and quantitative data for this study constituted a convergent parallel mixed method approach in which quantitative and qualitative data were collected within the same survey, analyzed separately, and then combined to draw overall conclusions (Creswell, 2014; Creswell & Clark; 2011).

3. Results

3.1 Quantitative results

Of the 205 complete cases on the IES-R, 137 (66.8%) participants were classified in the low-risk group for post-traumatic distress according to the IES-R (IES-R score below 24), 24 (11.7%) participants were classified in the moderate range of risk for post-traumatic distress (IES-R score between 24 and 32), and 44 (21.5%) participants were classified in the high-risk range on the IES-R for post-traumatic stress symptoms (IES-R score of 33 or higher). Scores on the IES-R ranged between zero and 76 ($M = 18.83; SD = 18.24$).

To explore the differences between educators and center leaders on scores on the IES-R, an independent samples t-test was conducted. Results of the t-test found no significant difference between IES-R total scores of educators ($M = 20.87; SD = 18.61$) and center leaders ($M = 16.07; SD = 17.56$); $t (201) = 1.86, P = .06$. The Spearman’s rho correlation analysis between years working in early education and IES-R scores found educators with more experience were significantly less likely to experience post-traumatic stress symptoms ($r = -0.16, P < .05$). This result supports our hypothesis that less experienced educators would experience worse mental health from COVID-19 compared to more experienced educators.

3.2 Qualitative results

Table 1 outlines themes analyzed from participants’ responses to the open-ended question ‘How has COVID-19 impacted your emotional wellbeing, if at all?’ This table is based on themes that appeared for participants in the low, moderate, and high-risk groups for post-traumatic distress on the IES-R. Table 1 is then followed by a description and example quotes for each theme, again with participants being tagged according to whether they belonged to the low, moderate, or high-risk group on the IES-R. The following themes are based on the response of 180 participants who provided a response to the open-ended question.

3.2.1 Theme 1: Emotions of educators

Participants from all groups (low, moderate, and high post-traumatic distress) reported on the impact of COVID-19 on their emotions, including stress, anxiety, worry, fear, anger, and frustration. Overall, the responses of 100 participants reflected this theme. One educator reported: “I’m very tired. It’s mentally exhausting not knowing what your day will look like each day” (Low-risk participant). Another suggested: “It has been an extremely stressful and worrying time. I found myself overwhelmed and anxious when I’m not normally like that” (Moderate-risk participant; Educator).

For some, these emotions were in reaction to a change in everyday practices and routines, such as the lack of social interaction outside of the home, for example: “COVID-19 has impacted greatly on my emotional wellbeing as the isolation has taken away many of the things, I do to reduce stress and enjoy work/life balance” (High-risk participant; Educator).

There was some mention of the emotional strain of the additional workload for participants during the pandemic. A leader stated:

Although I believe that early childhood centers needed to remain open, I do also believe that there has been added stresses with this. I have been working extremely longer hours than I would normally to ensure that my families and my staff have the support they require (Low-risk participant).

There were also some responses particular to the high-risk group. This group described somatic symptoms, panic attacks, tearfulness, hypervigilance, new medications for anxiety, and poor quality sleep from them ruminating and worrying about COVID-19. Examples of responses from high-risk participants included: “I have lost a lot of sleep and my immune system while strong from working with young children for many years is not great right now, mouth ulcers and cold sores...” (Leader) and “I had a month where I hardly slept...I was extremely emotional once at home, and my family had to help support me through this difficult time. I felt out of control. A feeling of hopelessness came through many times” (Educator).

3.2.2 Theme 2: Fear of infection

Fear around contracting COVID-19 and spreading the illness to others was of concern for participants in all groups (low, moderate, and high). Twenty-one participants provided a response related to this theme. One educator stated that this was because they had a chronic health condition. “Diagnosed with a chronic medical condition it has always been on my mind and is still” (High-risk participant).

Participants also stated that because early childhood centers remained open, they felt exposed to the outbreak and did not want to expose their family to possible infection. An early childhood center leader spoke about how they believed they were placing their family and others at risk.

It has been there in the back of my head, my biggest worry was catching and spreading it. I feel the weight of the potential to
Table 1: Themes from the open-ended question across the low, moderate and high-risk post-traumatic stress groups.

| Theme                                           | Group where theme occurred | Number (%) reporting theme |
|-------------------------------------------------|-----------------------------|----------------------------|
| Theme 1: Emotions of educators                  | Low, moderate, high         | Low = 57 (41.6); Moderate = 16 (66.7); High = 27 (61.4); Overall sample = 100 (48.8) |
| Theme 2: Fear of infection                       | Low, moderate, high         | Low = 13 (9.5); Moderate = 2 (8.3); High = 6 (13.6); Overall sample = 21 (10.2) |
| Theme 3: Increased workload                      | Low, moderate, high         | Low = 30 (21.9); Moderate = 5 (20.8); High = 8 (18.2); Overall sample = 43 (21.0) |
| Theme 4: Anger with government response          | Low, moderate, high         | Low = 11 (8.0); Moderate = 1 (4.2); High = 4 (9.1); Overall sample = 16 (7.8) |
| Theme 5: Impact of the media                     | Low, moderate               | Low = 2 (1.5); Moderate = 1 (4.2); Overall sample = 3 (1.5) |
| Theme 6: Resilience during COVID-19              | Low, high                   | Low = 11 (8.0); High = 3 (6.8); Overall sample = 14 (6.8) |

Note: The total number of responses (n = 197) is higher than the total number of participants who responded to the open-ended question (n = 180) because some participants provided multiple responses to this question.

* Low, moderate, and high refers to the categories of groups based on participants’ IES-R scores.

harm others by catching this. I was the only family member working away from home and exposed to others. I was a risk to my family (Low-risk participant).

An educator mentioned their concern about spreading the virus from one early learning center to another. “I work across 2 centers and two very different communities. I have been totally overwhelmed and stressed in case I took infection from 1 to the other” (High-risk participant).

3.2.3 Theme 3: Increased workload

This theme was identified in the responses of participants in the low, moderate, and high-risk post-traumatic stress groups. A total of 43 educator responses reflected the theme of increased workload. Educators and leaders reported that their workload increased due to COVID-19. “I’m having to juggle a lot at the moment. Work full time, create remote learning packs and still deal with home life” (Low-risk participant; Educator).

For those who were leaders, additional tasks included managing staff morale and supporting staff, keeping centers financially viable and ensuring that staff remained employed, applying for grants to obtain cleaning supplies and thermometers, and finding substitute educators when other educators were absent. For example, a leader reported: “The extra work that has had to occur from behind the scenes with staffing and rostering and children’s numbers lowering, ensuring staff morale is maintained and anxieties are addressed. It’s all been overwhelming at times” (Low-risk participant). Another leader reported: “My staff are continuously unwell, then require testing, and then having to isolate until they get their results. This causes huge down time and we have increasing demand” (High-risk participant).

However, educators and leaders reported other additional tasks, including searching for updates and guidelines to prevent COVID-19 contagion in their setting, reengaging children and families after children had a period of absence from the center, upskilling and planning for delivery of both online programs and face-to-face learning, offering support to colleagues and families, and additional cleaning and cleansing responsibilities to keep children and families safe. An educator reported regarding providing counselling to staff: “I am also counselling colleagues through this time, so too families. The last 6 weeks have been quite a challenge emotionally” (Moderate-risk participant), while a participant in the high-risk group was concerned about their additional responsibilities:

We have had to be running programs with different staff members and yet act as if everything was the same in order to provide security and predictably to the children and parents. In order to run the program, we have been expected to take on so much cleaning and sanitizing of equipment (High-risk participant; Educator).

3.3.4 Theme 4: Anger with government response

Another theme reported by participants across all risk groups was frustration, anger and confusion with the Government around their response, or perceived lack of a response, to the needs of early childhood settings. Sixteen participants reported experiencing anger with the Government. Specifically, a leader cited issues around obtaining financial support from the Government. “We do not want to make any of our staff redundant so we are trying very hard to stay afloat with the little the government is allocating to us” (Low-risk participant).

Educators and leaders reported frustration around the lack of information provided by the Government, and feelings of being unsupported, undervalued, and not respected by education departments. This lack of support caused one educator to feel that they wanted to leave the profession. “I am at a point where I feel I no longer want to work in this continually undervalued, unsupported and disrespected profession” (Low-risk participant).

The free childcare scheme introduced by the Australian Government between April and July 2020 was seen to devalue the sector and increase stress and anxiety for educators.

I have been a bit stressed and anxious about how to manage such small numbers and then all of a sudden to have them all come back when free childcare was announced, especially in terms of trying to program and keep them on track for their educational goals and learning (Low-risk participant; Educator).

However, one center leader noted that the free childcare scheme reduced their financial concerns. Anger towards the Government extended to the contradictory restrictions for educators at home compared to their restrictions at work. One participant reported:

As an older worker, I was told it was safe to work but as a grandmother, I wasn’t able to look after my grandchildren. So I looked after up to 30 children who I had no idea of where they had been or who they had been in contact with and wasn’t able to see my grandchildren who had been home and travelled nowhere…this made me angry at times… and very confusing (Moderate-risk participant; Educator).

One high-risk participant summed up these sentiments when she said, “[The Government] took away any worth of us as professionals. We were only needed as babysitters to keep the economy alive at times” (Educator).

3.2.5 Theme 5: Impact of the media

Only participants in the low-risk and moderate-risk group indicated that the media and constant exposure to information about COVID-19 had an impact on their wellbeing. Three participants provided responses related to this theme. Participants felt they needed to stay informed about COVID-19 but also felt that exposure to information about the pandemic was detrimental for their wellbeing. One participant stated: “Constant media output was draining at times… we needed to be informed due to our role and exposure to the community” (Low-risk participant; Educator).

Others argued that educators were not appropriately acknowledged through the media for their work during COVID-19.

We as educators haven’t been acknowledged as much as others in the media. Each night we hear about the ‘heroes’ of the pan-
demic, such as medical personnel... cleaners and now even courier drivers... And the attention that primary/secondary teachers have also received, again very well deserved, but we are also teacher... It would be nice to be acknowledged and celebrated as much as our primary/secondary counterparts (Low-risk participant; Leader).

3.2.6 Theme 6: Resilience during COVID-19

A distinct result from participants showing low symptoms of distress and those showing high levels of distress was in relation to their sense of resilience or opportunities for growth as a result of the pandemic. A total of 14 participants indicated experiences of resilience related to COVID-19. A participant in the low-risk group acknowledged that initially COVID-19 was challenging but that they were able to draw on strategies they had used in the past during adverse events. “I experienced initial fear and anxiety but was able to move through this relatively quickly using strategies that I have learned when I have been placed in previous challenging times. I feel very grateful for this” (Leader).

A participant from the high-risk group described how they were able to see the positive sides of COVID-19 in relation to their mental wellbeing. “COVID-19 has provided me with time and opportunities to stop and smell the roses. It taught me to appreciate the things around me that I have taken for granted day to day” (Educator).

Support from others was reported as helping an educator to manage any uncertainty and stress resulting from the pandemic. “Increased workload has caused some tiredness; however, our staff have been very well supported by colleagues, management and parent committee” (Low-risk participant)

3.3 Quantitative and qualitative results

We conducted a series of Chi square tests to explore differences between educators and early childhood leaders regarding their endorsement of the previously mentioned themes, and several Fisher’s exact tests to explore the relationships between group membership (low, moderate, and high post-traumatic distress on the IES-R) and endorsement of the earlier mentioned themes. For the Chi square analyses, there were no differences found between educators and early childhood leaders and their endorsement of any of the 6 themes ($P > .05$). For the Fisher’s exact tests, only one significant relationship was found between IES-R group membership and the first theme of ‘emotions of educators’ ($P < .05$; two-sided). Post hoc comparisons using adjusted residuals and Bonferroni correction alpha value of 0.0083 revealed participants in the low-risk group on the IES-R were less likely to endorse the theme of ‘emotions of educators’ ($P = .0080$). There was a trend toward participants in the high-risk group being more likely to endorse the theme of ‘emotions of educators,’ however this comparison did not reach statistical significance. Thus, the hypothesis that participants with high post-traumatic distress on the IES-R would report poorer wellbeing in response to the pandemic was not supported.

4. Discussion

This study aimed to identify post-traumatic stress symptoms of Australian early childhood educators and leaders, and their self-reported wellbeing experiences during COVID-19. The results of this study revealed 66.8% of participants scored in the low range for post-traumatic distress, 11.7% scored in the moderate range, and 21.5% scored in the high range for post-traumatic distress on the IES-R. A score in the moderate range on the IES-R indicates that an individual has symptoms of PTSD and may be at risk of developing the disorder, while a score in the high range on the IES-R suggests that an individual is showing several symptoms of PTSD in line with a possible diagnosis of PTSD (Asukai et al., 2002; Creamer et al., 2003). Although it is difficult to establish what participants’ scores were pre-COVID-19, and these results are from one moment of time, these findings are of concern. The findings highlight that approximately two-thirds of early childhood educators and leaders in this study experienced moderate to high post-traumatic distress and symptoms of PTSD (scoring in the moderate to high range on the IES-R) during the COVID-19 pandemic. Further, the results show that experiences of distress were equally experienced between early childhood educators and center leaders. While the nature of educator and leaders’ roles vary, the results indicate that post-traumatic stress was pervasive across early childhood education staff.

The qualitative data further confirms these results, through survey responses that depict educators’ and leaders’ feelings of anxiety, stress, anger, hypervigilance, and/or intrusive thoughts (described as rumination and problems sleeping) during the pandemic. Negative emotions, hypervigilance, and intrusive thoughts are 3 of the 4 symptom categories for PTSD in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association [APA], 2013). It is important to acknowledge that rates of post-traumatic stress symptoms among participants in the current study were lower compared with the prior literature. Sprang and Silman (2013) reported 25% of adults were at risk of PTSD and 28% met diagnostic criteria for PTSD after exposure to the Influenza H1N1 or SARS pandemic. These rates are higher than rates found for educators and leaders in the current study (21.5% scoring in the high range for post-traumatic distress on the IES-R). Nonetheless, any comparisons between the current results and prior literature should be interpreted with caution because of differences between study samples and measures used to evaluate PTSD symptomatology. Further, both the quantitative and qualitative outcomes of this research suggest that the educators and leaders sampled experienced both post-traumatic stress symptoms and reduced wellbeing during COVID-19. Participants with more years of experience in early childhood experienced lower post-traumatic stress compared to participants with less years of experience. Although the strength of this relationship was small, this result supports the findings of prior literature that educators with more years of experience are more resilient when managing adverse events (Alisic, 2012; Davies & Berger, 2019).

According to those surveyed, educators’ and leaders’ emotional reactions were influenced by an increased workload, their experience of feeling undervalued by the Government and the media, and the pressures they experienced to support colleagues, parents, and children at the expense of their own mental health. In many ways, Cumming’s (2017) framework on factors that decrease educators’ wellbeing, including individual, contextual, relational, discursive, and systemic factors, align with findings of this research. For instance, participants in this study reported COVID-19 impacted their wellbeing on an individual level because they were unable to engage in self-care and leisure activities. The wellbeing of early childhood staff was also affected by contextual factors, such as the increased workload they experienced at the time. Relational challenges included the support that educators and leaders provided to families, children, and colleagues during COVID-19. Finally, participants reported systemic and discursive wellbeing concerns during COVID-19, such as the systemic change to free childcare offered to families by the Australian Government between April and July 2020, and the lack of media discourse about the challenges of early childhood educators during the pandemic. The COVID-19 pandemic appeared to accentuate educators’ concerns of being undervalued and not appreciated (Otten et al., 2019), and these components were found to affect the wellbeing of educators at this time.

This comparison between the prior educator wellbeing literature and the findings of this study suggests COVID-19 may have
amplified the factors known to decrease wellbeing of early childhood educators. It is in this way that COVID-19 represents a unique opportunity to implement policies and procedures to better support early childhood educators’ wellbeing and mental health generally and in response to pandemics and other adverse global challenges in the future. In particular, the results of this study may have implications for educators and leaders in countries more heavily impacted by the COVID-19 pandemic. Australia was ranked among the top 10 countries of 98 countries based on their pandemic response in a report in 2021 (Yosufzai, 2021). Thus, it is possible that educators and leaders in other countries have experienced higher levels of post-traumatic distress and lower wellbeing compared to educators in Australia, though further research is needed. A study in the United States reported that the COVID-19 pandemic exacerbated ‘preexisting shortcomings’ in the early childhood sector and that educators faced significant financial strain, job losses, and the closure of centers because of the lack of Government support and because families were unable to pay (Hashikawa et al., 2020). Hashikawa et al., (2020) called for development, dissemination, and integration of health, development, and social-emotional policy in the early childhood sector in response to COVID-19.

One notable area of difference in the open-ended responses of participants in this study was those who scored in the low-risk range and high-risk range on the IES-R reported on how COVID-19 had increased their resilience and sense of wellbeing. A prior review of the literature found that while some people experience negative psychological health from pandemics, some people also experience growth and learn something about their capacity to cope during challenging circumstances (Berger et al., 2021). Normalizing these varied reactions, monitoring changes in people’s mental health, and providing people with psychological support when needed has been identified as crucial in response to COVID-19 and future pandemics (Berger et al., 2022).

The results of this research support the dual continuum theory of mental health. Specifically, educators and leaders in both the low-risk and high-risk groups on the IES-R reported experiences of both positive and negative wellbeing in response to the pandemic. However, participants at low-risk of post-traumatic stress on the IES-R were less likely to report negative emotional impacts on their wellbeing from COVID-19. According to the dual continuum model, these educators and leaders reporting low mental illness and fewer wellbeing concerns are less in need of support compared to other groups. On the other hand, educators and leaders at high risk of mental illness and reporting poorer wellbeing may require the greatest level of support in response to COVID-19. Individuals reporting lower levels of mental illness, while also experiencing a lower sense of wellbeing, may be at-risk and require support. Educators and leaders found to be at high risk for mental illness, but who report good wellbeing, may also be at-risk and requiring support based on this model. However, because the open-ended question used in this study did not specifically enquire about positive and negative changes in educators’ wellbeing in response to COVID-19, further research is warranted.

Overall, the findings of this research revealed that development and evaluation of wellbeing interventions for educators is required in response to the current pandemic. A recent systematic review of wellbeing interventions for school teachers and early childhood educators found mindfulness-based interventions are the most frequently delivered interventions designed to improve the wellbeing of educators (Berger et al., 2022). Schussler et al. (2018) found self-implemented mindfulness-based activities were correlated with increased resilience, distress tolerance, and self-efficacy among educators, as well as reduced emotional reactivity. Protective factors, such as self-care practices and community support, further contributed to educators’ capacity to cope under stress (Schussler et al., 2018). More recently, Matiz et al. (2020) explored the impact of an 8-week mindfulness-oriented meditation program with teachers in Italy. It was concluded that mindfulness-based training could mitigate negative mental health consequences of COVID-19, including symptoms of stress, depression, and anxiety in teachers (Matiz et al., 2020).

Ultimately, there are several mindfulness-based resources being used to promote psychological wellbeing of early childhood educators. However, the review by Berger et al. (2022) and research by Hine et al. (2022) argued that interventions to improve educator wellbeing fall short because they focus mainly on self-care practices of educators and less on making changes to education system structures, policies, and leadership to improve wellbeing of educators. Trauma-informed practice may be one such intervention that involves a whole-setting approach to teach educators about adverse life experiences, such as pandemics, how to recognize the signs that they or someone else is experiencing post-traumatic stress, and how to care for themselves, colleagues, and students after adversity (Dorado et al., 2016). Research is growing around use of trauma-informed practice in early childhood settings, and researchers have argued for trauma-informed practice to support children exposed to the COVID-19 pandemic (Griffin, 2020). Early research on trauma-informed practice in early learning has found that these approaches increase educators’ knowledge and confidence to manage children’s exposure to adversity and trauma (Holmes et al, 2015; McCommico et al., 2016).

5. Limitations

A limitation of this study, which used an anonymous online survey, was that it was not possible to determine the response rate and representativeness of the sample. Random sampling of early childhood education staff may have achieved greater generalizability within the results. Replication of the current study with a random sample of educators and leaders may help address this limitation. Second, this study was not able to identify the long-term impact of the pandemic on participants, nor compare their responses to pre-COVID-19 times, or with other professional or community groups. Third, it is possible that participants in the moderate-risk group on the IES-R did not feature under certain themes because this group contained the smallest number of participants (n = 24) compared to the other groups (low: n = 137; high: n = 44). The nature of questionnaire responses does not allow for rich, thick data, and follow up interviews are required. Finally, while this study aimed to evaluate the experiences of early childhood educators across Australia, the survey did not include an item on the state or territory in which participants reside. It may have been that Victorian educators were more impacted by the pandemic compared to educators in the other states because Victoria experienced the longest lockdown and highest cases of COVID-19 in Australia in 2020. Nonetheless, this study provides a glimpse into Australian educators’ reactions following the COVID-19 pandemic and the urgent need to support this critical workforce group.

6. Conclusion

Both the quantitative and qualitative data from this study support the assertion that early childhood educators in Australia have experienced emotional distress from the COVID-19 outbreak. As a result, investment, planning, and delivery of approaches to help educators to manage their own mental health, the wellbeing of colleagues, and the health and safety of children and families during COVID-19 is required. Specifically, delivery of policies and wellbeing initiatives for the early childhood sector in response to COVID-19 and future pandemics are needed, as well as professional learning for educators regarding self-care and trauma-informed
practice. This research also indicates that Governments and policy-makers need to make swift changes to acknowledge the central role of early childhood education and care in Australia with regard to pandemics.

Author contributions

Emily Berger: Conceptualization, methodology, formal analysis, writing - original draft, writing - reviewing and editing, project administration. Gloria Quinones: Conceptualization, methodology, writing - reviewing and editing, project administration. Melissa Barnes: Conceptualization, methodology, writing - reviewing and editing, project administration. Andrea Reupert: Writing - reviewing and editing.

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