



## **Parental Self-Efficacy During COVID-19: Parents' Experiences Supporting the Learning of their Child(ren) with Special Educational Needs**

Jess Whitley and Michaella James

### *Abstract*

Schools closed as a result of the COVID-19 pandemic with the expectation that learning continue from home. This presented a unique challenge for parents of children with special educational needs as during this time levels of stress were high and access to supports were low. The purpose of this mixed methods study was to explore and describe the experiences of Canadian parents of children with SEN with at-home learning as it related to their learning-specific parental self-efficacy (L-PSE), perceived stress and perceived support from their child's school. Quantitative analysis revealed that L-PSE was significantly and negatively related to perceived stress. Parents did not differ in their perception of school supports. While qualitative analysis identified many similarities across groups, it also highlighted negative experiences being described more often by parents with low L-PSE. Overall, the findings of this study provide evidence that parents with high and low parental self-efficacy differ in their experiences of supporting the learning of their children with SEN and that efficacy was related to the overall experience that parents had during COVID-19. This study serves to add to the limited body of literature on L-PSE, as well as inform the efforts of schools and other professionals in supporting the parents of children with SEN and their families.

**Keywords:** Parental self-efficacy, COVID-19, children, disabilities, parental stress

**Jess Whitley** is a Professor of Inclusive Education in the Faculty of Education at the University of Ottawa and University Research Chair at *The Crossroads of Inclusion, Mental Health and School Attendance*. Her research interests include home-school collaboration, school absenteeism, and the intersection of mental health and education. Recent Publications include: Whitley, J., Beauchamp, M. H., & Brown, C. (2021). The impact of COVID-19 on the learning and achievement of vulnerable Canadian children and youth. *Facets*, 6(1), 1693-1713. <https://doi.org/10.1139/facets-2021-0096>; Whitley, J. & Hollweck, T. (2020). Inclusion and equity in education: current policy reform in Nova Scotia, Canada. *Prospects*, 49(3), 297-312. <https://doi.org/10.1007/s11125-020-09503-z>; and Whitley, J., Gooderham, S., Duquette, C., Orders, S., & Cousins, J. B. (2019). Implementing Differentiated Instruction: A mixed-methods exploration of teacher beliefs and practices. *Teachers and Teaching: Theory and Practice*, 25(8), 1043-1061. <https://doi.org/10.1080/13540602.2019.1699782>

**Michaella James** completed her M.A. in the Faculty of Education at the University of Ottawa and is a Registered Psychotherapist practicing in Ontario, Canada.

## ***Introduction***

In March of 2020, the world came to a stop with the onset of the COVID-19 pandemic. Most countries implemented public health measures to curb the spread of the virus including the temporary closure of schools. Efforts were made to offer continued education via remote learning and children in many countries, including Canada, were expected to learn from home (Greenlee & Reid, 2020). As a result, parents were required to care for their children throughout the day while also adopting a new role in relation to their child's learning and schoolwork (Bhamani et al., 2020).

Among the parents engaging in distance learning activities were those whose children have special educational needs. The term special educational needs (SEN) refers to a broad, heterogeneous group of students who require a range of resources within schools to be successfully academically and/or socially (UNESCO, 2017). Most have neurodevelopmental disabilities, including learning disabilities, autism spectrum disorder or attention-deficit/hyperactivity disorder. The term SEN was chosen in this study to reflect all students who receive additional supports and services at school. It is a term that considers those with formal identifications or diagnoses but also those with education-related needs who do not have, or have not yet had the chance to obtain, a formal diagnosis. What students with SEN have in common is that they require supports beyond those provided to all or most children, to be successful at school.

Children with SEN experience neurological, emotional, behavioural, and/or physical challenges that can affect the ease and ways with which they learn best (Her Majesty's Government, 2022; Ontario Ministry of Education, 2018). As such, these children typically receive a range of specialized supports such as an individual education/behaviour plan or program (IEP), the allocation of an educational assistant (EA), access to therapists (e.g., occupational) and/or assistive technology (BC Ministry of Education, 2016; U.S. Department of Education, 2017). Considering these supports are typically provided within schools, many parents of children with SEN faced a particularly complex undertaking when schools closed in supporting the learning of their children.

In many decades of research conducted prior to the COVID-19 pandemic, research has documented the key role that many parents play in the academic success of their children with SEN. Parent involvement as a broad construct, has generally been related to more positive outcomes, particularly when definitions include parental expectations and aspirations, academic encouragement, and autonomy-focused homework supports (Boonk et al., 2018; Kim, 2022). Parents are more likely to engage in the types of involvement related to achievement and other academic outcomes if they have a positive sense of their own capabilities in the area, in other words, if they have higher self-efficacy (Bandura, 1977).

Like parent involvement, parental self-efficacy can be understood generally, as well as specifically in relation to support for learning. Bandura (1977) defined self-efficacy as an individual's belief in whether or not they are able to perform a particular task or behaviour. If an individual has high self-efficacy beliefs, they are not only more likely to attempt the task or activity, but to persist in the face of adversity. However, self-efficacy alone is not enough to produce behaviour. Desirable outcomes, encouragement, sufficient skills, among other variables influence self-efficacy to promote an individual's decision to engage in a task or behaviour. On

the other hand, a stressor such as a global pandemic and school closures, failed attempts, lack of support and information can have a negative effect, making behaviours less likely (Bandura, 1977; Coleman & Karraker, 1998).

Research conducted during school closures due to COVID-19 has highlighted the high levels of stress experienced by parents, with higher levels reported overall by those who had children with SEN (Chen et al., 2020; Cheng & Deng, 2023; Greenway & Eaton-Thomas, 2020; Lee et al., 2021). Parental stress was associated with social support, children's emotional/behavioural needs, emotional well-being and supports from school (Alhuzimi, 2021; Corbett et al., 2021; Montirosso et al., 2021). Several studies tested what was termed the 'spillover hypothesis' to describe the relational pathways between parent mental health, child-parent relationships and parent perceptions of their child's stress (e.g. Russell et al., 2020). Concerns have been expressed about the impact of high stress and poor parent mental health on students with SEN during COVID-19 (Eshraghi et al., 2022; Touloupis, 2021).

Parents' capacity to successfully support the learning of their children during the period(s) of at-home learning was influenced by myriad factors, including stress and the dynamic interaction of parent, family, school and child-specific variables (e.g. Cheng & Deng, 2023). Self-efficacy has also emerged as a variable that mediated the relationship between parental stress and distress and children's emotional regulation during the pandemic among families of children without disabilities, as well as parents' involvement in at-home learning (e.g. Morelli et al., 2020; Oppermann et al., 2021). Ample evidence of complex relationships between parent stress and efficacy pre-date the pandemic (e.g. Crnic & Ross, 2017) and bi-directional effects of perceived stress and parental self-efficacy have been found among parents supporting their children during COVID-19 (e.g. Gniewosz, 2022; Oppermann et al., 2021).

While a large body of literature related to parent self-efficacy exists, our interest is in self-efficacy of parents related specifically to their role in at-home learning – what we call learning-specific parental self-efficacy (L-PSE). While not all COVID-specific, a small body of research has explored the efficacy of parents in relation to their child's learning – notably parents of children with ADHD and/or learning disabilities (Becker et al., 2020; Good, 2001; Kosmerly, 2020; Rogers et al., 2009; Wendel et al., 2020). These studies found that parents of children with ADHD felt less efficacious than parents of children without ADHD in supporting their children's learning, were more negative about their interactions with their child's school, and that their perception of their child's ADHD symptoms was related to learning-specific self-efficacy.

Drawing on research conducted pre- and during COVID-19 school closures, it is evident that a complex interplay of L-PSE, stress, and school-provided support exists for every parent. For parents of students with SEN, the importance of these variables is augmented in relation to the stakes at hand – many children with SEN are in greater need of supports from home and school to progress and achieve developmental milestones and learning-related outcomes. The relationships between all three of these variables have seldom been studied together and have yet to be studied within the context of the global pandemic. This study explores how parents of differing levels of L-PSE experience both stress and perceived support from their child(ren)'s school during the COVID-19 pandemic. The following questions were investigated using data from a survey completed by Canadian parents of children with SEN, following school closures in the spring of 2020.

1. Do parents of children with SEN with high or low learning-specific self-efficacy differ in a) their levels of perceived stress and b) how much perceived support they received from school during COVID-19 closures?
2. What are the experiences of parents of children with SEN who have high or low learning-specific self-efficacy in supporting at-home learning during COVID-19 related to self-efficacy, stress and perceived school supports?

### *Methodology*

A sequential explanatory mixed-methods design (quan - QUAL) was chosen to provide both a general overview of the research problem and a more in-depth look into participants' views and experiences (Ivankova et al., 2006). First, a statistical analysis was conducted to explore potential differences between high and low L-PSE groups, then a content analysis of the qualitative data was conducted to elaborate on the quantitative findings.

#### *Procedures*

Participants were recruited to complete the survey through social media channels such as Facebook and Instagram via paid advertisements and through provincial advocacy organizations. Eligibility criteria stated that participants must be a parent or guardian of a child or adolescent enrolled in school (e.g., not normally homeschooled), that had a special educational need, defined as "receives special educational services, has a formal diagnosis or identification, and/or has an individual education or behaviour plan or program". Surveys were completed in either English or French.

#### *Measures*

The survey completed by participants explored various factors related to parenting a child with SEN and learning and living at home during the COVID-19 pandemic. It consisted of 22 closed-ended questions and 8 open-ended questions. Closed-ended questions covered topics such as demographic information (i.e., province, family structure, relationship to child) and child variables (i.e., child age, grade, diagnosis/main identification). The survey also included scales measuring parents' perceptions and experiences of academic and social/emotional support from the school, their child's peer relationships, stress, and learning-specific PSE. The open-ended questions explored parents' general perceptions of at-home learning. For the purpose of this study, three scales and six of the eight open-ended questions were used to answer the research questions.

#### *Parental Involvement Project-Parent Questionnaire (PIPQ)*

The parental self-efficacy scale of the PIPQ assesses parental self-efficacy related to helping children succeed in their learning and academic activities (Hoover-Dempsey et al., 2005). The PIPQ-SE has been shown to have strong psychometric properties, with good internal consis-

tency ( $\alpha = 0.84$ ; Kosmerly, 2020). For the purpose of our survey, 5 of the original 7 items were retained, including “I know how to help my child do well in school”, “I don’t know if I’m getting through to my child”, “I don’t know how to help my child make good grades in school”, “I feel successful about my efforts to help my child learn” and “I don’t know how to help my child learn”. We removed two items that we deemed irrelevant in a pandemic context (one relating to the influence of peers and one to school performance). One pandemic-related item was added, “I feel less confident in helping my child now that schools are closed”. The scale was adjusted from the original 6-point Likert scale to a 5-point Likert scale with the inclusion of a “not applicable” response option, to align with the rest of the survey. The adjusted scale exceeded acceptable reliability levels with a Cronbach’s alpha of 0.90.

#### *Perceived Stress Scale (PSS)*

The 4-item version of the perceived stress scale (PSS-4) was used to assess participants current levels of perceived stress. As Cohen et al. (1983) acknowledged in the development of the measure, while some events can be objectively rated as being stressful, an individual’s perception of how stressful an event or situation is can have a significant effect on how they feel. The psychometric properties of the PSS are generally acceptable (e.g., Warttig et al., 2013). In the present study, we found an internal consistency of 0.78.

#### *Perceived School Supports Scale (SSS)*

The Perceived School Supports Scale (SSS) is comprised of 10 items that capture how supported participants felt by educators during at-home learning/school closures in academic and social/emotional areas. These items were developed by the research team, which consisted of teachers, parents, teacher educators, and researchers in the field. The Perceived School Supports sub-scale yielded a Cronbach’s alpha of 0.92.

#### *Participants*

Of 397 total survey responses, 263 provided complete responses. Participants were divided into two groups based on their overall parental self-efficacy scores: high L-PSE and low L-PSE. There is no agreed upon way of defining what constitutes high or low self-efficacy (e.g., Bandura et al., 1996; Tarning et al., 2019). As such, it was determined that the mean L-PSE score ( $N = 2.96$ ), plus or minus one half of the standard deviation ( $SD = 0.98$ ) would be used to divide the groups, resulting in retention of 69% of the sample.

Using this approach, the high-end cut off score for the low L-PSE group was 2.47, yielding 85 participants. Parents in this group reported an average L-PSE score of 1.84 ( $SD = 0.40$ ) on a 5-point Likert scale. The low-end cut off score for the high L-PSE group was 3.45, yielding 97 participants. Parents in this group reported an average L-PSE score of 3.99 ( $SD = 0.44$ ) on a 5-point Likert scale. Participants who scored between 2.47 and 3.45 ( $N = 81$ ) were excluded from analyses, leaving 182 participants in the overall sample.

Of the 182 total respondents, the majority were mothers (91%) and most lived in Ontario

(58%) with some representation across all provinces, but no territories. The most common diagnosis reported by parents was Autism (39%) followed by Emotional/Behavioural Difficulties (31%), Intellectual/Developmental Disabilities (30%), and Learning Disabilities (27%). The majority of parents reported that their child had only one main identification or diagnosis (51%), while 27% reported two and 13% reported three. The average age of the children was 10.5 with approximately 65% of children in elementary grades (K-8) and 35% in secondary grades (9-12).

### *Data Analysis*

As per the mixed-methods study design quantitative and qualitative analyses were conducted in a sequential fashion before being mixed at the point of the findings. First, two independent-sample t-tests were conducted to determine whether individuals of high and low L-PSE differed in their levels of perceived stress and perceived support from their child(ren)'s school during COVID-19 school closures. Following quantitative analysis, a content analysis was conducted using the responses to the selected open-ended questions. The approach to inductive content analysis used was described by Hsieh and Shannon (2005) as “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (p. 1278). To reduce bias during analysis, the primary researcher was blinded as to the self-efficacy status of the two groups. Each data set was analyzed participant by participant, beginning with the development of individual codes, and moving to revision and organization into groupings and themes. A co-researcher coded approximately 40% of the data independently, after which researchers collaborated in the development of the themes. Once both groups were analyzed and themes were named, the primary researcher was informed as to the identification of each group and engaged in a cross-group analysis, highlighting similarities and differences.

## **Results**

### ***Quantitative Findings***

Two independent-samples *t*-tests were used to test the first research question wherein level of learning-specific L-PSE (high, low) was the independent variable and perceived stress and perceived support from the school were the dependent variables. There was a significant difference in levels of perceived stress between parents with high L-PSE ( $M = 6.45, SD = 2.81$ ) and parents with low L-PSE ( $M = 8.75, SD = 3.01$ ). Parents with high L-PSE reported lower levels of perceived stress than parents with low L-PSE,  $t(180) = -5.33, p < .001, d = -.79$ . Parents with high L-PSE ( $M = 3.17, SD = 0.95$ ) and those with low L-PSE ( $M = 3.08, SD = 0.91$ ) reported similar ratings of perceived support from the school,  $t(180) = 0.66, p = .514$ .

### ***Qualitative Findings***

Through our content analysis, we identified four main themes: a) challenges, b) benefits, c) resources and supports, and d) relationships. Each of these contains several sub-themes.

### *Challenges of COVID-19 School Closures*

While parents reported a variety of significant challenges and concerns they faced during the period of school closures, three sub-themes emerged that captured the majority of parent's experiences: difficulty supporting learning, overall well-being, and general parenting difficulties. The frequency with which these were noted by participants in high and low L-PSE group can be seen in Table 1.

**Difficulty Supporting Learning.** Most parents experienced difficulties supporting and facilitating their child(ren)'s learning during school closures. Parents described challenges having trouble getting schoolwork completed, not having the appropriate learning materials for their child, and not receiving communication or support from the school. Difficulty supporting learning was the most frequently referenced challenge for parents of both high and low L-PSE groups. However, parents differed in the specific barriers they were facing that made supporting their child(ren)'s learning difficult. For instance, the majority of parents in the low L-PSE group indicated that they did not feel adept supporting their children's learning and assisting their children in getting schoolwork completed while parents in the high L-PSE group were more concerned about having necessary materials and resources.

**Well-Being.** The second most common challenge parents experienced was related to their own or their child's well-being. Concerns ranged from a parent's own feelings of exhaustion as a result of a lack of respite care, to their concerns for their child's isolation from peers. Parents of both high and low L-PSE groups reported similar rates of concerns for wellbeing.

**General Parenting Difficulties.** The third sub-theme that emerged was general parenting difficulties. Parents described the challenge of needing to provide constant supervision for their child while they were at home, maintaining a household routine, a general lack of support, and difficulty balancing their multiple roles. While similar proportions of parents in both groups experienced general parenting difficulties, the high L-PSE group were more concerned with balancing multiple roles and the low L-PSE group with specific parenting duties.

### *Benefits and Positive Aspects of COVID-19 School Closures*

The second theme captured the positives of school closures, with four sub-themes identified: family dynamics, overall well-being, flexibility in schedule and an absence of any positive aspects.

**Family Dynamics.** The positive impact of COVID-19 school closures on family dynamics was noted by about half of parents in the high and low L-PSE groups. Parents described being able to spend more time together as a family and strengthening family relationships. Parents also shared that spending vastly more time with their child, including supporting their learning, allowed them to learn more about their child's strengths and needs. Parents of high and low L-PSE described

similar experiences within this sub-theme of the benefits of the COVID-19 school closures.

**Well-Being.** While many participants described the negative impact of COVID-19 school closures on well-being, benefits for family's mental, emotional, social, and physical well-being were also noted. These were generally related to the reduction of school-related stressors and the positive family relationships. Overall, about a quarter of parents from both groups expressed that during this period supporting their children at home they observed improvements in their own and their children's well-being.

**Flexibility in Schedule.** The final benefit noted by parents was in relation to increased scheduling flexibility. As a result of pandemic-related changes like school closures, parents were afforded more control over where they needed to be and when they needed to be there, resulting in a more relaxed approach to the days. Interestingly, the flexibility in schedule sub-theme only emerged in the high L-PSE group.

**Absence of any Positive Aspects.** The final sub-theme observed within the benefits reported by parents was just the opposite, that there were no benefits or positive aspects about this time supporting their children at home. While clearly not a sub-theme that captures benefits, we felt it important to include this 'non' theme in order to highlight the contrasting experiences of participants in the two groups. Only three parents in the high L-PSE group reported *not* identifying any benefits resulting from COVID-19 school closures, in contrast to nearly a quarter of the participants in the low L-PSE group.

#### *Helpful and/or Desired Resources and Supports*

The third theme related to resources and supports that parents either valued or would have liked to be in place. Three sub-themes captured parents' responses: educational materials and delivery methods, educational supports, and well-being supports (see Table 3).

**Material and Delivery.** Within both groups, having the right educational materials and instructional methods was the most commonly valued support. Most parents believed that their children needed to be taught in real time by teachers and educational assistants, whether that be virtually via video conferencing or in-person by opening the schools. While the spread of responses in both groups was even, parents in the high L-PSE group more frequently reported that specific learning programs, materials and books were helpful and/or desired, whereas parents in the low L-PSE group more often reported a value of having face-to-face learning for their child.

**Educational Support.** Parents expressed a need for educational support for themselves and their children, from the school and educators. For parents with high L-PSE, the need for 1-on-1 support for their children was not as common as educator involvement or communication, with about one fifth of parents in the group citing this a wanted resource and support. Conversely, parents in the low L-PSE group were less likely report communication or guidance from the school in comparison to the desire for educator involvement and 1-on-1 support for their children.



**Well-Being Support.** Parents described two domains of supports and resources that helped with their own and their family's well-being. The most common, accounting for over half of the responses in this sub-theme, was professional supports and therapies. This included therapists, social workers, psychologists, autism service professionals, respite caregivers and nurses. Parents also found it helpful to be around and have the support from loved ones, and to feel connected to others, socially. Perceptions and experiences were similar across the high and low L-PSE groups.

### *Relationship Changes during COVID-19 School Closures*

The final theme captured parents' changing relationships with their child(ren) and school staff. Several parents in both groups indicated that their relationships remained the same with their child and their child's school, be that positive or negative to begin with, however the majority indicated that their relationships did, in fact, change (see Table 4).

**Relationship with Child.** Parents in both groups described negative and positive impacts on their relationship with their child. Parents who felt the relationship had worsened recounted several contributing factors such as having to "play the role of teacher's aide" or feeling "significantly less capable as a mother". Parents also described how the negative effects of the pandemic on them had, by extension, negatively affected their child. Alternatively, other families experienced positive changes within their relationships. Parents often felt that having more time together was positive for their relationship with their child. Others expressed improvements related to having more flexibility in their schedule.

The majority of parents felt that their relationship with their child had changed as a result of school closures, however parents in the high L-PSE group reported more positive changes to their relationship with their child, whereas parents with low L-PSE observed more negative impacts.

**Relationship with the School.** Parents who experienced positive changes in their relationship with their child's school described more frequent and effective communication and felt more supported by the school. A few parents in the high L-PSE group described feeling relieved during this time as it gave them a break from negative experiences they were having with the school prior to closures. Parents who felt that their relationship with their child's school changed in a negative way often felt frustrated and disappointed with the school, sometimes referring to poor communication and support.

Parents in the high L-PSE group were, for the most part, evenly split between those that observed changes and those that did not. Conversely, nearly three quarters of parents in the low L-PSE group reported that their relationship with the school had changed, generally in negative ways.

## ***Discussion***

The two aims of this study were to first, identify whether parents differed in their perceived levels of stress and support from the school as a function of their level of learning-specific parental self-efficacy, and second, to describe parents' experiences of the COVID-19 school closures in relation to stress and L-PSE.

In regard to parental stress, it was found that parents of high and low L-PSE differed significantly. Parents with high L-PSE reported lower levels of perceived stress than parents with low L-PSE. This finding confirms previous, largely non-COVID research documenting the relationship between stress and self-efficacy across domains (e.g., Chung et al., 2017; McKay et al., 2014; Ye et al., 2018). In regard to parenting, the relationship between general parental self-efficacy and stress in parents of children with SEN has also been noted (e.g., Jandrić & Kurtović, 2021; MacInnes, 2009). There is currently no literature that examines the relationship between *learning-specific* parental self-efficacy and perceived stress.

One possible explanation for the difference in levels of perceived stress of parents with high and low L-PSE is that self-efficacy buffers against stress (Bandura, 1977). Research has shown that parents' beliefs that they are able to successfully execute certain parenting tasks is, in fact, protective against the negative effects of stress (e.g., Coleman & Karraker, 1997). For instance, Raikes and Thompson (2005) found that parental self-efficacy moderated the relationship between income and stress wherein parents with higher self-efficacy reported less stress than those with lower self-efficacy despite having similar financial hardships.

In general, we found that parents with low L-PSE had a more negative experience of the COVID-19 school closures than parents with high L-PSE. Many did not see any benefits to this time at home with their children and felt that their relationships with both their child and their child's school had worsened. These findings suggest other potential moderators of stress that may have been particularly experienced by parents in the high and low L-PSE groups. For example, other studies have found that the more significant the child's need, the higher a parent's level of stress (e.g., Ben-Naim et al., 2019; Essler et al., 2021; MacInnes, 2009); this relationship may certainly have been exacerbated during school closures when parents took on the additional role of educator and full-time caregiver.

Themes emerging from the qualitative data also confirm findings of multiple COVID-19 studies (e.g. Roy et al., 2022; Shaw & Shaw, 2021) as parents of children with SEN struggled with supporting their child's learning, balancing their multiple roles, and maintaining a sense of well-being for themselves and their families. Moreover, parents from several studies also found it beneficial to have the time at home with their families, appreciated the added scheduling flexibility offered by remote learning/working, and noted the opportunity to learn more about their children. Roy et al. (2022) also found that a "sizable minority" of parents of children with and without SEN noted no benefits of the COVID-19 school closures. While authors did not investigate parental self-efficacy, Shaw and Shaw (2021) did note the importance of parents' perceived lack of understanding/ability, similar to self-efficacy.

In the current study, it was found that most parents reported that their relationship with their child had changed as a result of the school closures. The difference, however, was that parents with high L-PSE more often felt this was a positive change and parents with low L-PSE saw this

change as negative. Tarsuslu and colleagues (2021) found that parents who had a more positive relationship with their child experienced less stress during COVID-19 than parents who experienced more conflict with their child. Similarly, while Essler et al. (2021) did not study parents of children with SEN specifically, they investigated the relationships between children's well-being and behaviour problems, parental stress, parental-self efficacy and the quality of the parent-child-relationship across time during the COVID-19 pandemic. They found that both parental self-efficacy and a more positive parent-child relationship were protective against the negative effect of strict COVID-19 restrictions on children's behaviour. It is possible that parents with high L-PSE were better able to manage the demands of the COVID-19 school closures as they related to their child's behaviour and well-being leading to less strain on the parent-child relationship. As a result, the more positive parent-child relationship of parents with high L-PSE may have also buffered against stress leading to the difference in reported stress levels.

It is also possible that the ability to notice and acknowledge positive aspects of the COVID-19 school closures more generally, affected perceived stress among differing levels of L-PSE. In fact, Herbert and colleagues (2020) discussed how parents who perceived more benefits to the lockdowns as opposed to challenges, tended to report lower levels of stress than parents who identified more of the difficult aspects of lockdowns. In the current study, parents with low L-PSE were largely unable to identify any observable benefits or positive aspects to COVID-19 school closures. It is possible that parents with high L-PSE were more apt to see "silver linings", which may have buffered against the stress of the COVID-19 pandemic measures.

#### *Support and Learning-Related Self-Efficacy*

Interestingly, parents of high and low L-PSE did not differ significantly on their perceived support from the school. As Hoover-Dempsey and colleagues (2005) explain in relation to Bandura's work on self-efficacy, the involvement and support of schools and other important figures in a parent's life "exert significant influence on parent's sense of efficacy for helping their children succeed in school" (p. 109). Studies have shown a positive relationship between support and self-efficacy in non-parenting domains (e.g., Karademas, 2006; Liu & Aunguroch, 2019) and in relation to parenting duties outside of supporting their child's learning (e.g., Leahy-Warren et al., 2011; Razurel et al., 2017). While the relationship between L-PSE and school support specifically has not been directly studied, it has been found that positive parent-school relationships have a significant and positive effect on L-PSE (Liu & Leighton, 2021). Taken together, it was expected that parents with high L-PSE would feel more supported than parents with low L-PSE, but this was not the case.

Both high and low L-PSE groups reported an average score in the mid-point of the range, with as many parents in both groups reporting positive and negative perceptions of provided support. Other studies have also investigated how supported parents felt by their child's school during COVID-19 school closures and found mixed results. For instance, while Thorell and colleagues (2022) found that parents of children with SEN largely felt unsupported by their child's school, Nusser (2021) found that parents of children with SEN felt mostly supported. Greenway-Eaton and Thomas (2020) reported that approximately half of their sample felt dissatisfied with

school supports while the other half felt satisfied. None of these studies, however, looked at school support in relation to L-PSE. Thus, while support from the school may contribute to self-efficacy beliefs, there are likely other factors influencing the relationship between parental self-efficacy and perceived school support, particularly during a pandemic.

One finding that may provide insight into the lack of relationship between L-PSE and school support in this study is that of Harpaz and colleagues (2021). The authors shed light on the fact that the *type* of support matters when it comes to looking at parents of differing levels of self-efficacy. In our study, while parents of high and low L-PSE did not differ in their perceptions of the adequacy of school support in general, and both expressed a value for the support and involvement of educators, they did differ in what types of support they desired and/or found helpful. Parents with low L-PSE more often valued 1-on-1 support for their child, whereas parents with high L-PSE tended to value specific learning programs, books or tools that they could use with their child. It is possible that the desire for educator involvement and individual support signified the parent's need for the educators to maintain the teaching/support role for their child as opposed to themselves, signifying a more dependent help-seeking orientation (Harpaz et al., 2021).

### *Limitations*

There are several limitations of the study. First, parents who participated in the study were resourced in ways that other parents might not be. Participants had access to technology (e.g., devices, internet) as well as the time and relevant skills (e.g., spoke French or English, could navigate the text and virtual survey interface) to complete the survey. Future research would benefit greater recruitment efforts to include a more diverse sample. This study also did not control for demographic variables which may have influenced the similarities and differences found between groups in this study (e.g. socio-economic status). It is recommended that future research include multiple sources of data and take into consideration other variables that may affect the relationships between parental self-efficacy, stress, and school support.

### *Relevance to the Practice of School Psychology*

While pandemic measures have lifted and schools have long since opened, the importance of home-based learning and parental involvement has not lost relevance. Neither has the need to support parents of children with SEN. Parents' involvement in their educational activities has been and will continue to be a beneficial factor for child outcomes, particularly home-based support vs. school-based involvement. As such, for parents of children with SEN, who are at risk of high stress and whose children who face difficulties in their learning by definition, finding ways to foster learning-related self-efficacy and positive and effective learning experiences is critical. Efforts to enhance parents' efficacy can be tailored by context, including the ideal role of the parent in the learning process, the particular needs of the child, and the available resources of the family, to ensure parents do not become overwhelmed or discouraged. Educators and school staff broadly

have a role to play in assessing the capabilities of parents to support their child and disability-related needs in particular, and providing guidance, strategies or even referrals where necessary. These professionals can also serve as essential bridges between families and educators, facilitating communication to ensure that a shared understanding of the needs of the child and how they can be supported at home *and* at school is in place.

### ***Conclusion***

Evident in the discussion of the study findings is the fact that there is no single, or simple, explanation for why and how parents of children with SEN experienced the COVID-19 school closures in the ways they did, particularly relating to their level of self-efficacy. More than likely, perceived stress and school support impact L-PSE, alongside many other contributing factors that were not considered in this study, like socio-economic status, family support, parent mental health or severity of their child's needs. This study serves to add to the limited body of literature on efficacy, stress and supports, as they relate to the learning of children with SEN. Additionally, it offers unique insight into how parents of children with SENs experienced the first wave of COVID-19 school closures as it relates to their self-efficacy. This ultimately provides researchers and educators the opportunity to learn more about how best families of children with SEN can be supported, going forward in a world with and without the COVID-19 pandemic.

### References

- Adams, E. L., Smith, D., Caccavale, L. J., & Bean, M. K. (2021). Parents are stressed! Patterns of parent stress across COVID-19. *Frontiers in Psychology, 12*(626456), 1–12.
- Alhuzimi, T. (2021). Stress and emotional wellbeing of parents due to change in routine for children with Autism Spectrum Disorder (ASD) at home during COVID-19 pandemic in Saudi Arabia. *Research in Developmental Disabilities, 108*, 103822.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review, 84*(2), 191–215.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development, 67*(3), 1206–1222. <https://doi.org/10.1111/j.1467-8624.1996.tb01791.x>
- Becker, S. P., Breaux, R., Cusick, C. N., Dvorsky, M. R., Marsh, N. P., Sciberras, E., & Langberg, J. M. (2020). Remote learning during COVID-19: Examining school practices, service continuation, and difficulties for adolescents with and without attention-deficit/hyperactivity disorder. *Journal of Adolescent Health, 67*(6), 769–777.
- Ben-Naim, S., Gill, N., Laslo-Roth, R., & Einav, M. (2019). Parental Stress and Parental Self-Efficacy as Mediators of the Association Between Children’s ADHD and Marital Satisfaction. *Journal of Attention Disorders, 23*(5), 506–516.
- Bhamani, S., Makhdoom, A. Z., Bharuchi, V., Ali, N., Kaleem, S., & Ahmed, D. (2020). Home learning in times of COVID: Experiences of parents. *Journal of Education and Educational Development, 7*(1), 9–26.
- Boonk, L., Gijsselaers, H. J., Ritzen, H., & Brand-Gruwel, S. (2018). A review of the relationship between parental involvement indicators and academic achievement. *Educational Research Review, 24*, 10–30.
- BC Ministry of Education. (2016). *Special education services: A manual of policies, procedures and guidelines*. [https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/inclusive/special\\_ed\\_policy\\_manual.pdf](https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/inclusive/special_ed_policy_manual.pdf)
- Chen, S.-Q., Chen, S.-D., Li, X.-K., & Ren, J. (2020). Mental health of parents of special needs children in China during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health, 17*(24), 1–14.
- Cheng, S., & Deng, M. (2023). Psychological stress and parenting styles predict parental involvement for children with intellectual disabilities during the covid-19. *Journal of Child and Family Studies, 32*(1), 122–131.
- Chung, M. C., AlQarni, N., Muhairi, S. A., & Mitchell, B. (2017). The relationship between trauma centrality, self-efficacy, posttraumatic stress and psychiatric co-morbidity among Syrian refugees: Is gender a moderator? *Journal of Psychiatric Research, 94*, 107–115.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behaviour, 24*(4), 385–396.
- Coleman, P. K., & Karraker, K. H. (1997). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review, 18*(1), 47–85.

- Corbett, B. A., Muscatello, R. A., Klemencic, M. E., & Schwartzman, J. M. (2021). The impact of COVID-19 on stress, anxiety, and coping in youth with and without autism and their parents. *Autism Research, 14*(7), 1496-1511.
- Crnicek, K., & Ross, E. (2017). Parenting Stress and Parental Efficacy. In K. Deater-Deckard & R. Pianta (Eds.), *Parental stress and early child development* (pp. 263-284). Springer.
- Elder, G. H. (1995). Life trajectories in changing societies. In A. Bandura (Ed.), *Self-efficacy in changing societies* (pp. 46-68). Cambridge University Press.
- Eshraghi, A. A., Cavalcante, L., Furar, E., Alessandri, M., Eshraghi, R. S., Armstrong, F. D., & Mittal, R. (2022). Implications of parental stress on worsening of behavioural problems in children with autism during COVID-19 pandemic: “the spillover hypothesis”. *Molecular Psychiatry, 27*(4), 1869-1870.
- Essler, S., Christner, N., & Paulus, M. (2021). Longitudinal relations between parental strain, parent-child relationship quality, and child well-being during the unfolding COVID-19 pandemic. *Child Psychiatry & Human Development, 52*, 995-1011.
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs: Principles and practices. *Health Services Research, 48*(6pt2), 2134–2156. <https://doi.org/10.1111/1475-6773.12117>
- Gniewosz, G. (2022). A mother’s perspective: perceived stress and parental self-efficacy during the COVID-19 pandemic. *European Journal of Developmental Psychology, 1*-28.
- Good, K. R. (2001). *Parental self-efficacy and educational involvement of parents of children with learning disabilities*. Doctor of Philosophy in Psychology, University of South Carolina. <https://www.proquest.com/docview/250170716?accountid=14701&pq-origsite=primo>
- Greenlee, E. & Reid, A. (2020). *Parents supporting learning at home during the COVID-19 pandemic*. Statistics Canada= Statistique Canada. <https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00040-eng.htm>
- Greenway, C. W., & Eaton-Thomas, K. (2020). Parent experiences of home-schooling children with special educational needs or disabilities during the coronavirus pandemic. *British Journal of Special Education, 47*(4), 510–535.
- Harpaz, G., Grinshtain, Y., & Yaffe, Y. (2021). Parental self-efficacy predicted by parents’ subjective well-being and their parenting styles with possible role of help-seeking orientation from teachers. *The Journal of Psychology, 155*(6), 571–587.
- Herbert, J. S., Mitchell, A., Brentnall, S. J., & Bird, A. L. (2020). Identifying rewards over difficulties buffers the impact of time in COVID-19 lockdown for parents in Australia. *Frontiers in Psychology, 11*, 606507–606507.
- Her Majesty’s Government. (2022). *SEND Review: Right support, Right place, Right time*. [https://assets.publishing.service.gov.uk/media/624178c68fa8f5277c0168e7/SEND\\_review\\_right\\_support\\_right\\_place\\_right\\_time\\_accessible.pdf](https://assets.publishing.service.gov.uk/media/624178c68fa8f5277c0168e7/SEND_review_right_support_right_place_right_time_accessible.pdf)
- Hoover-Dempsey, K. V. & Sandler, H. M. (1995). Why do parents become involved in their children’s education: Why does it make a difference? *Teachers College Record, 97*(2), 310-331.
- Hoover-Dempsey, K. V., Walker, J. M. T., Sandler, H. M., Whetsel, D., Green, C. L., Wilkins, A. S., & Closson, K. (2005). Why do parents become involved? Research findings and implications. *The Elementary School Journal, 106*(2), 105–130.

- Hsieh, H. & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277-1288.
- Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field Methods, 18*(1), 3–20.
- Jandrić, S. & Kurtović, A. (2021). Parenting sense of competence in parents with and without intellectual disability. *Europe's Journal of Psychology, 17*(2), 75-91.
- Karademas, E. C. (2006). Self-efficacy, social support and well-being: The mediating role of optimism. *Personality and Individual Differences, 40*(6), 1281–1290.
- Kim, S. (2022). Fifty years of parental involvement and achievement research: A second-order meta-analysis. *Educational Research Review, 37*, 100463.
- Kosmerly, S. (2020). *The Relationship Between Parental Self-Efficacy, Child Inattentive and Hyperactive/Impulsive Symptoms and Early School Functioning* [Clinical Psychology, University of Ottawa].  
[https://ruor.uottawa.ca/bitstream/10393/41431/1/Kosmerly\\_Stacey\\_2020\\_Thesis.pdf](https://ruor.uottawa.ca/bitstream/10393/41431/1/Kosmerly_Stacey_2020_Thesis.pdf)
- Leahy-Warren, P., McCarthy, G., & Corcoran, P. (2011). First-time mothers: Social support, maternal parental self-efficacy and postnatal depression. *Journal of Clinical Nursing, 21*(3–4), 388–397.
- Lee, V., Albaum, C., Tablon Modica, P., Ahmad, F., Gorter, J. W., Khanlou, N., ... & Weiss, J. A. (2021). The impact of COVID-19 on the mental health and wellbeing of caregivers of autistic children and youth: A scoping review. *Autism Research, 14*(12), 2477-2494.
- Liu, Y., & Leighton, J. P. (2021). Parental self-efficacy in helping children succeed in school favors math achievement. *Frontiers in Psychology, 6*(657722), 1–15.
- Liu, Y., & Aunguroch, Y. (2019). Work stress, perceived social support, self-efficacy and burnout among Chinese registered nurses. *Journal of Nursing Management, 27*(7), 1445–1453.
- MacInnes, L. K. (2009). *Parenting self-efficacy and stress in mothers and fathers of children with down syndrome* [Master of Arts, Simon Fraser University].  
<https://www.proquest.com/docview/1518115545?pq-origsite=primo&accountid=14701>
- McKay, M. T., Dempster, M., & Byrne, D. G. (2014). An examination of the relationship between self-efficacy and stress in adolescents: The role of gender and self-esteem. *Journal of Youth Studies, 17*(9), 1131–1151.
- Montirosso, R., Mascheroni, E., Guida, E., Piazza, C., Sali, M. E., Molteni, M., & Reni, G. (2021). Stress symptoms and resilience factors in children with neurodevelopmental disabilities and their parents during the COVID-19 pandemic. *Health Psychology, 40*(7), 428.
- Morelli, M., Cattelino, E., Baiocco, R., Trumello, C., Babore, A., Candelori, C., & Chirumbolo, A. (2020). Parents and children during the COVID-19 lockdown: The influence of parenting distress and parenting self-efficacy on children's emotional well-being. *Frontiers in Psychology, 11*, 584645.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods, 16*(1), 1–13.



- Nusser, L. (2021). Learning at home during COVID-19 school closures - How do German students with and without special educational needs manage? *European Journal of Special Needs Education, 36*(1), 51–64.
- Ontario Ministry of Education. (2017). *Special education in Ontario: Kindergarten to grade 12*. <http://www.edu.gov.on.ca/eng/document/policy/os/2017/SpecEdFinal2018.pdf>
- Oppermann, E., Cohen, F., Wolf, K., Burghardt, L., & Anders, Y. (2021). Changes in parents' home learning activities with their children during the COVID-19 lockdown—The role of parental stress, parents' self-efficacy and social support. *Frontiers in Psychology, 12*, 682540.
- Razurel, C., Kaiser, B., Antonetti, J.-P., Epiney, M., & Sellenet, C. (2017). Relationship between perceived perinatal stress and depressive symptoms, anxiety, and parental self-efficacy in primiparous mothers and the role of social support. *Women & Health, 57*(2), 154–172.
- Rogers, M., Wiener, J., Martin, I., & Tannock, R. (2009). Parental involvement in children's learning: Comparing parents of children with and without Attention-Deficit/Hyperactivity Disorder (ADHD). *Journal of School Psychology, 47*, 167–185.
- Rossi, R., Socci, V., Talevi, D., Mensi, S., Niolu, C., Pacitti, F., Di Marco, A., Rossi, A., Siracusano, A., & Di Lorenzo, G. (2020). COVID-19 pandemic and lockdown measures impact on mental health among the general population in Italy. *Frontiers in Psychology, 11*(790), 1–6.
- Roy, A. K., Breaux, R., Sciberras, E., Patel, P., Ferrara, E., Shroff, D. M., Cash, A. R., Dvorsky, M. R., Langberg, J. M., Quach, J., Melvin, G., Jackson, A., & Becker, S. P. (2022). A preliminary examination of key strategies, challenges, and benefits of remote learning expressed by parents during the COVID-19 pandemic. *School Psychology, 37*(2), 147–159.
- Russell, B. S., Hutchison, M., Tambling, R., Tomkunas, A. J., & Horton, A. L. (2020). Initial challenges of caregiving during COVID-19: Caregiver burden, mental health, and the parent–child relationship. *Child Psychiatry & Human Development, 51*, 671–682.
- Shaw, P. A. & Shaw, A. (2021). COVID-19 and remote learning: Experiences of parents supporting children with special needs and disability during the pandemic. *Education, 3*(13), 1-15.
- Tarning, B., Silvervarg, A., Gulz, A., & Haake, M. (2019). Instructing a teachable agent with low or high self-efficacy—Does similarity attract? *International Journal of Artificial Intelligence in Education, 29*, 89–121.
- Tarsuslu, B., Sahin, A., Durat, G., & Arikan, D. (2021). An analysis of parents' perceived stress and the parent-child relationship during the COVID-19 pandemic. *Bangladesh Journal of Medical Science, 20*, 97–107.
- Thorell, L. B., Skoglund, C., de la Peña, A. G., Baeyens, D., Fuermaier, A. B. M., Groom, M. J., Mammarella, I. C., van der Oord, S., van den Hoofdakker, B. J., Luman, M., de Miranda, D. M., Siu, A. F. Y., Steinmayr, R., Idrees, I., Soares, L. S., Sörlin, M., Luque, J. L., Moscardino, U. M., Roch, M., ... Christiansen, H. (2022). Parental experiences of homeschooling during the COVID-19 pandemic: Differences between seven European countries and between children with and without mental health conditions. *European Child & Adolescent Psychiatry, 31*(4), 649–661.

- Touloupis, T. (2021). Parental involvement in homework of children with learning disabilities during distance learning: Relations with fear of COVID-19 and resilience. *Psychology in the Schools*, 58(12), 2345-2360.
- UNESCO. (2017). *A guide for ensuring inclusion and equity in education*. Paris: UNESCO. Retrieved from: <http://unesdoc.unesco.org/images/0024/002482/248254e.pdf>
- U. S. Department of Education. (2017). *IDEA: Sec. 300.320 Definition of individualized education program*. <https://sites.ed.gov/idea/regs/b/d/300.320>
- Warttig, S. L., Forshaw, M. J., South, J., & White, A. K. (2013). New normative English-sample data for the short form perceived stress scale (PSS-4). *Journal of Health Psychology*, 18(12), 1617–1628.
- Wendel, M., Ritchie, T., Rogers, M. A., Ogg, J. A., Santuzzi, A. M., Shelleby, E. C., & Menter, K. (2020). The association between child ADHD symptoms and changes in parental involvement in kindergarten children’s learning during COVID-19. *School Psychology Review*, 49(4), 466–479.
- Wittkowski A., Garrett C., Calam R., & Weisberg D. (2017). Self-report measures of parental self-efficacy: A systematic review of the current literature. *Journal of Child and Family Studies*, 26(11), 2960 - 2978.
- Ye, L., Posada, A., & Liu, Y. (2018). The moderating effects of gender on the relationship between academic stress and academic self-efficacy. *International Journal of Stress Management*, 21(S1), 56–61.

**Table 1: Main Challenges of COVID-19 School Closures**

Sub-Themes	High PSE		Low PSE	
	N	%	N	%
Difficulty Supporting Learning	42	40.4	43	43
Difficulty Supporting Child Academically and Getting Work Completed	17	40.5	27	62.8
Insufficient, Inaccessible and/or Inappropriate Materials and Resources Needed to Facilitate Learning	18	42.9	8	18.6
Lack of Communication and Support from the School	7	16.7	8	18.6
Well-Being	36	34.6	35	35.0
General Parenting Difficulties	26	25.0	22	22.0
Balancing Multiple Roles	15	57.7	6	27.3
Difficulties with Parenting Duties	11	42.3	16	72.7

**Table 2: Benefits and Positive Aspects of the COVID-19 School Closures**

Sub-Themes	High PSE		Low PSE	
	N	%	N	%
Academic & Developmental Growth	16	15.1	9	12.7
Family Dynamics	47	44.3	29	40.8
Improved Relationships & More Time Spent Together	23	48.9	16	55.2
Parent's Ability to Learn About and Support Child	24	51.1	13	44.8
Well-Being	26	24.5	16	22.5
Flexibility in Schedule	14	13.2	--	--
No Benefits or Positive Aspects Observed	3	2.8	17	23.9

**Table 3: Helpful and/or Desired Resources and Supports**

Sub-Themes	High PSE		Low PSE	
	N	%	N	%
Material and Delivery	70	41.9	50	38.5
Face-to-Face Learning (e.g., virtual, in-person)	18	25.7	23	46.0
Appropriate and Accessible Materials, Delivery & Expectations	20	28.6	16	32.0
Specific Learning Programs, Materials, Books	32	45.7	11	22.0
Educational Support	50	29.9	45	34.6
School & Educator Involvement and Support	21	42.0	18	40.0
1-on-1 Support for Child	10	20.0	17	37.8
Communication and Feedback from Teachers and the School	19	38.0	10	22.2
Well-Being Support	47	28.1	35	26.9
Professional Supports and Therapies	26	55.3	22	62.9
Being Around and Feeling Connected to Others	21	44.7	13	37.1

**Table 4: Relationships with Child and Child's School**

Sub-Themes	High PSE		Low PSE	
	N	%	N	%
<i>Parents Relationship with their <u>Child</u> during COVID-19 School Closures</i>				
Relationship Has Not Changed	14	18.9	8	13.8
Relationship Has Changed	60	81.1	50	86.2
Positive	36	60.0	16	32.0
Negative	24	40.0	34	68.0
<i>Parents' Relationship with their <u>Child's School</u> during COVID-19 School Closures</i>				
Relationship Has Not Changed	34	54.8	15	27.3
Relationship Has Changed	28	45.2	40	72.7
Positive	11	39.3	13	32.5
Negative	17	60.7	27	67.5