THE IMPACT OF THE FIRST WAVE OF THE COVID-19 PANDEMIC ON PARENTS OF CHILDREN WITH EXTERNALISING DIFFICULTIES IN IRELAND: A LONGITUDINAL COHORT STUDY

ABSTRACT

Background: This longitudinal cohort study aimed to examine the impact of the first wave of the COVID-19 pandemic in Ireland on parents of children with externalising difficulties, in comparison to parents of children without such difficulties.

Method: Parents of 159 children completed online self-report measures at three time points during the first wave of the COVID-19 pandemic; 1) Delay and Mitigation Phase (March 2020 - May 2020), 2) Reopening of Society Phase (June 2020 – July 2020), and 3) Wave 2 Case Acceleration Phase (September 2020 - October 2020). Participants were allocated to the Clinical group if they met the clinical cut off point on the Conduct or Hyperactivity/Inattention subscales of the Strengths and Difficulties Questionnaire at Time 1.

Results: Parents of children with externalising difficulties experienced significantly higher levels of stress, lower levels of wellbeing, and engaged in higher levels of avoidant-focused coping strategies longitudinally. There was a significant difference between outcomes at the different phases of the COVID-19 pandemic, for stress related to parenting, personal/family stress related to the impact of the COVID-19, and type of coping strategies employed. Children with externalising difficulties, in comparison to children without externalising difficulties, showed significantly greater adjustment over time for behavioural and emotional difficulties.

Conclusions: Results provide important information regarding the trajectory of psychological outcomes in parents of children with externalising difficulties over the first wave of the COVID-19 pandemic, highlighting the need for increased parental supports during, and after, the COVID-19 pandemic.

Key Words: COVID-19; externalising, behavioural, parents, stress, wellbeing

What is already known about this topic?: The COVID-19 pandemic has been associated with negative psychological outcomes in the general population. Parents of children with externalising difficulties experience poorer outcomes than parents of children without such difficulties, in pre-pandemic circumstances.

What does this article add?: Over the first wave of the COVID-19 pandemic, parents of children with externalising difficulties experienced significantly higher levels of stress, lower levels of wellbeing, and engaged in higher levels of avoidant-

focused coping strategies. Children with externalising difficulties showed significantly greater adjustment over time for behavioural and emotional difficulties. These results highlight the need for services to support the psychological wellbeing of parents of children with externalising difficulties.

1. INTRODUCTION

The first case of COVID-19 was detected in the Republic of Ireland on 26th February 2020[1], with nationwide public health containment measures announced on 12th March 2020, marking the country's move from the Containment Phase to the Delay Phase, of virus management. Public health measures implemented included closure of schools, colleges, and childcare facilities[2], with further restrictions instigated in late March and April 2020, as confirmed cases of COVID-19 increased[3]. On 1st May 2020, a Five Phase Roadmap[4] was introduced following a decline in COVID-19 cases, which outlined the easing of restrictions. A second surge of COVID-19 cases began in August 2020, resulting in the reimplementation of restrictions in selected regions of the country, with a five level 'Framework for Restrictive Measures'[5] introduced in September 2020. Ireland has since been subjected to second and third waves of surges in COVID-19 cases, which have resulted in the easing and tightening of containment measures based on this framework[5].

The COVID-19 pandemic has been associated with significant increases in levels of depression, anxiety, and stress in an Irish population[6]. During the first week of the implementation of stay-at-home measures in March 2020, 27.7% of adults in Ireland met the clinical cut off point on screening measures for generalized anxiety disorder (GAD) or depression[7], with 17.7% of this sample also meeting diagnostic requirements for COVID−19–related Post Traumatic Stress Disorder (PTSD)[8]. People with an ongoing chronic health condition were also shown to have elevated psychological distress, and reduced wellbeing indices.[9]

With the closure of schools and child-care facilities, and implementation of stay-at-home orders in Ireland in March 2020, many parents had to adjust to increased levels of responsibility in supporting their children to access education through remote learning, and in many cases, simultaneously manage demands of working from home. During a period of stay-at-home orders in Singapore[10], levels of parental stress were found to mediate the impact of COVID-19 on harsh parenting and parent-child relationship closeness, highlighting the importance of considering parental stress during periods of public health restrictions.

Caring for a child with an externalising difficulty, such as behavioural difficulties associated with Attention Deficit Hyperactivity Disorder (ADHD), in pre-pandemic circumstances, has been associated with higher levels of parental stress, depression, and anxiety.[11,12] This is of heightened concern during the COVID-19 pandemic, as there is a risk that additional stressors imposed by the COVID-19 pandemic may exacerbate pre-pandemic mental health difficulties.[13] As a bidirectional relationship has been proposed between parental stress and child

behaviour difficulties,[14] the impact which the COVID-19 pandemic may have on both parents, and their children with externalising difficulties, must be considered.

Externalising difficulties are often prevalent in children who have autism,[15] ADHD,[15] children who have experienced complex trauma[16,17] and/or children who have an intellectual disability (ID)[18]. Several aspects of the COVID-19 pandemic may have had a negative impact on parents of children with externalising difficulties. Restrictions imposed on social meetings are of concern, considering that poorer quality of life in parents of children with autism has been associated with child behavioural difficulties and lack of social support[19] and social support acts to reduce stress appraisals in parents of children with ADHD and autism.[20] For children who experience externalising difficulties, access to services and supports in Ireland have been significantly reduced during the COVID-19 pandemic.[21] This is worrying considering that hyperkinetic disorders, including ADHD, are frequently assigned to Community Child Adolescent Mental Health Service (CAMHS) Teams,[22] as mandated by the Health Service Executive in Ireland due to the high level of parents support needs in managing such externalising difficulties faced by the child. Research conducted in Italy during the COVID-19 pandemic found parents of children with externalising difficulties reported increased intensity and frequency in their children's behavioural difficulties,[23] and parents of children diagnosed with a mental or physical difficulty reported higher levels of parental burnout and less social support[24].

As services adjust to new ways of working, it is essential to consider the impact which the COVID-19 pandemic has had on this cohort of parents to inform paediatric practice and appropriate supports. Our study aimed to determine how the presence or absence of significant levels of child externalising behaviour problems at the outset of the COVID-19 pandemic, and the passage of time from the Delay and Mitigation Phase, through the Reopening of Society Phase following Wave 1, to the Wave 2 Case Acceleration Phase, affected parents perception of (1) sources of stress in their lives, (2) their well-being, (3) their stress responses (4) their coping strategies, and (5) their children's behavioural problems. That is, there were five research questions concerning the effects of externalising behaviour problems and the passage of time on variables in each of five domains.

There were four hypotheses;

1. That parents of children with externalising difficulties, in comparison to parents of children without such difficulties, would have significantly poorer outcomes on variables in all domains.

2. That there would be a significant difference between scores on variables in all domains obtained during the Delay and Mitigation Phase, the Reopening of Society Phase, and the Case Acceleration Phase.
3. That compared to parents of children without externalising difficulties, mean scores on variables of parents of children with externalising difficulties, would indicate poorer adjustment as the COVID-19 pandemic progressed.
4. That compared to children without externalising difficulties, mean scores of children with externalising difficulties would indicate poorer adjustment on parent-rated behavioural difficulties as the COVID-19 pandemic progressed.

2. METHOD

2.1. Recruitment

Study information was disseminated online via Irish charities for children, school information platforms, and social media. Parents provided informed consent to be provided with a hyperlink via email to complete data entry at each time point. Each participant created an individual code to link their data from each time point. Individuals were eligible to participate if they were a parent of a child (4-18 years) and were living in the Republic of Ireland. The term 'parent' in this study referred to any individual who engaged in the act of parenting, e.g., biological parents, foster parents/carers, kinship carers, etc. Participants who completed all time points were entered into a draw to win one of three 50-euro retail vouchers.

2.2. Design

The study design was a longitudinal cohort study with 159 participants, divided into a Clinical and a Non-clinical group. Data were collected at three time points during the COVID-19 pandemic in Ireland. Time 1 data were collected during the Delay and Mitigation Phase (28th March 2020 - 18th May 2020), Time 2 during the Reopening of Society Phase following Wave 1 (10th June 2020 – 19th July 2020), and Time 3 during the Wave 2 Case Acceleration Phase (21st September 2020 - 21st October 2020) (Figure 1,2). Participants were assigned to the Clinical group if they reported a clinical cut-off score of ≥4 on the Conduct Problems scale or ≥7 on the Hyperactivity/ Inattention Problems scale of the Strength and Difficulties Questionnaire (SDQ)[24] at Time 1. These cut off points are based on a population-based UK survey, with 10% of children reaching this clinical cut off point.[25]

2.3. Sample Size

A power analysis, conducted with G*Power 3.1,[26] indicated that for one-tailed statistical tests with *p* values of 0.05 and power values of 0.80 to detect moderate

differences (d = 0.50) between groups, a sample size of 102 study-completers (51 cases per cell) would be required.

2.4. Assessment Protocol

Demographic information was collected at Time 1 (Table 1). Parent-reported measures for assessing dependent variables, described below, were administered at all three time points. Cronbach alpha reliability coefficients of almost all measures at all time points exceeded 0.70, indicating acceptable levels of internal consistency reliability. There were two exceptions, discussed below.

2.5.1. The Strengths and Difficulties Questionnaire – Parent Version (SDQ)[25]. The SDQ is a 25-item screening instrument for assessing emotional and behavioural problems, which has been validated for use with children and adolescents aged 4-17 years of age.[25] Responses are provided on three-point scales. The measure has five subscales; emotional difficulties, conduct difficulties, hyperactivity/inattention difficulties, peer relationship problems, prosocial behaviour, and a total difficulties score. A review of 48 studies has suggested the Hyperactivity/Inattention scale and Conduct Problems subscales have adequate psychometric properties.[27]

2.5.2. The Parental Stress Scale (PSS)[28]. The PSS is an 18-item scale which measures the level of stress associated with raising children within four domains of parenting: rewards, stressors, loss of control, and satisfaction. Responses are provided on a 5-point scale and total scores range from 18 to 90, with higher scores indicating higher levels of parental stress. This measure has been used in recent research examining parental stress during the COVID-19 pandemic (e.g.,29, 30).

2.5.3. The Effect of Covid Questionnaire (ECQ)[6]. The ECQ is a 29-item scale that evaluates perceptions of Covid-related stresses, as well as gratitude arising from the COVID-19 pandemic. This measure was developed for the current study by the authors. Items 1-8 provide a COVID-19 Parenting Stress score, items 9-21 provide a COVID-19 Personal/Family Stress score, and items 22-29 provide a COVID-19 Gratitude score, with responses provided on a 5-point scale. An exploratory factor analysis of an extended version of the ECQ was conducted by Burke et al.[6], which included an additional subscale related to concerns regarding aging parents during the COVID-19 pandemic. Results of Burke et al.[6] suggested that ECQ items produced factors that corresponded to a priori subscales, except for items in the Personal/Family Stress subscale which were loaded on two separate factors, however, the alpha value for this scale was found to be satisfactory. In the current study, Cronbach's alpha for the ECQ Gratitude Scale fell just below an acceptable level of reliability at Time 3 (alpha = 0.694). With removal of item 27, 'In the past

month, how much has your experience of the COVID 19 crisis led you to feel grateful for your job?', the ECQ Gratitude scale exceeded a Cronbach's alpha of 0.70 at all three time points. This item was therefore removed for subsequent analyses.

2.5.4. The Impact of Event Scale – Revised (IES-R)[31]. The IES-R is a 22-item measure which evaluates subjective distress related to a traumatic event. The IES-R consists of three subscales characteristic of PTSD responses; intrusion, avoidance, and hyperarousal. The IES-R has been employed in recent studies measuring subjective distress related to the COVID-19 pandemic (e.g., 32,33).

2.5.5. The World Health Organization Well-Being Index (**WHO-5)[34]**. The WHO-5 is a 5-item scale which assesses subjective psychological well-being. Items are scored on a 6-point scale, with higher scores indicating higher levels of well-being. The WHO-5 has been found to have adequate validity both as a screening tool for depression and as an outcome measure in clinical trials.[34] This measure has been used in research assessing wellbeing during the COVID-19 pandemic (e.g.,35,36).

2.5.6. The Brief Coping Orientation to Problems Experienced Inventory (Brief COPE).[37] The Brief COPE is a 28-item scale which measures how frequently positive and negative behaviours and cognitions are employed when coping with a specific stressful situation. Responses are provided on a 4-point scale, with higher scores suggesting a stronger tendency to utilise the coping behaviour. Two major factors have been found to underlie the Brief COPE scale; avoidant-focused coping and approach-focused coping.[38] The Brief COPE Inventory has been utilised in studies investigating coping during the COVID-19 pandemic (e.g., 39) and has been found to have satisfactory psychometric properties.[37] In the current study, Cronbach's alpha for the avoidant-focused coping subscale at all time points were between .64 and .66, indicating modest levels of internal consistency reliability.

2.5. Data Analysis

Data collected were analysed using IBM Statistical Package for the Social Sciences (SPSS) Version 24.0[40]. Twenty multiple imputations were conducted to manage missing data. Means for the Clinical and Non-clinical groups during the Delay and Mitigation Phase (Time 1), the Reopening of Society Phase (Time 2), and the Wave 2 Case Acceleration Phase (Time 3), were analysed using 2 X 3 Mixed ANOVAs, following MANOVAs (Table 2). Significant effects of ANOVAs were only interpreted where significant effects (Group, Time, or Group X Time interactions) had occurred in MANOVAs, as to avoid type I error. Effect sizes comparing means of the Clinical

and Non-clinical groups, as well as effect sizes comparing the means at three time points for each group were calculated (Table 3). The following criteria for effect sizes was followed; d = 0.20 small, d = 0.50 medium, and d = 0.80 large.[41] The results below confirm the impressions given by the Panels in Figure 3.

3. RESULTS

3.1. Parental Sources of Stress

The first research question concerned the effect of presence or absence of significant levels of child externalising behaviour problems at the outset of the Covid 19 pandemic and the passage of time on variables in the Parental Sources of Stress, as measured by the PSS, the Parenting Stress scale of the ECQ, and the Personal/Family Stress scale of the ECQ. A significant multivariate effect for Group (Wilks' λ =.795, F (3, 155) = 13.289, p = <0.0005, partial eta squared = 0.205) and for Time were identified (Wilks' λ =.802, F (6, 152) = 6.247, p = <0.0005, partial eta squared = 0.198). ANOVA results identified significant main effects for Group on all three variables in this domain, indicating that parents in the Clinical group, compared to parents in the Non-clinical group, displayed significantly higher levels of stress related to being a parent, of large effect *(*d = 0.89 – 0.95), stress related to parenting during the COVID-19 pandemic, of small to medium effect *(*d = 0.40 – 0.51), and stress related to the impact of the COVID-19 pandemic on personal/family factors, of small to medium effect *(*d = 0.29 – 0.50). A significant main effect for Time was documented for both the ECQ Parenting Stress and Personal/Family Stress scales. Pairwise comparisons for the ECQ Parenting Stress scale suggested that the Clinical group exhibited a significant increase in stress related to parenting during the COVID-19 pandemic, of small effect between the Delay and Mitigation Phase (Time 1) and the Reopening of Society Phase (Time 2) (p = 0.006; d = -0.20), followed by a significant decrease in stress of small effect, between the Reopening of Society Phase (Time 2) and the Case Acceleration Phase (Time 3) (p = <0.0005; d = 0.44). The Non-clinical group demonstrated a similar pattern, exhibiting a significant increase of small effect between the Delay and Mitigation Phase (Time 1) and the Reopening of Society Phase (Time 2) (p = 0.038; d = -0.30), followed by a significant decrease in stress related to parenting during the COVID-19 pandemic between the Reopening of Society Phase (Time 2) and the Case Acceleration Phase (Time 3) (p = 0.010; d = 0.43). Pairwise comparisons for the ECQ Personal/Family Stress scale suggested that the Clinical group exhibited a significant downward trajectory of a reduction in stress related to the impact of COVID-19 on the family from Time 1 to Time 3, of small effect (p = <0.0005; d = 0.42).

3.2. Parental Wellbeing

The second research question concerned the effect of presence or absence of significant levels of child externalising behaviour problems at the outset of the COVID-19 pandemic and the passage of time on variables in the Parental Wellbeing domain, as measured by the WHO-5 and the ECQ Gratitude scale. A significant multivariate Group effect was found for this domain (Wilks' $\lambda = 0.931$, F (2, 156) = 5.822, $p = 0.004$, partial eta squared = 0.069). ANOVA results indicated a significant effect for Group on parent wellbeing, as measured by the WHO-5 scale, with the Clinical group experiencing significantly lower levels of wellbeing, in comparison to the Non-clinical group. Effect sizes for the WHO-5 suggest that parents in the Clinical group displayed poorer wellbeing of medium effect size at Time 1 ($d = -0.50$), of small effect at Time 2 ($d = -0.34$), and of medium effect at Time 3 ($d = -0.55$).

3.3. Parental Stress Responses

The third research question concerned the effect of presence or absence of significant levels of child externalising behaviour problems at the outset of the Covid 19 pandemic and the passage of time on variables in the Parental Stress Responses domain, as measured by three IES-R variables. The MANOVA for this domain did not find any significant multivariate effects and therefore ANOVA results were not interpreted.

3.4. Parental Coping

The fourth research question concerned the effect of presence or absence of significant levels of child externalising behaviour problems at the outset of the COVID-19 pandemic and the passage of time on variables in the Parental Coping domain, which consisted of the Brief COPE avoidant-focused coping and approach-focused coping scales. A significant multivariate effect for Group (Wilks' $\lambda = .954$, F (2, 156) = 3.794, $p = .025$, partial eta squared = 0.046) and for Time (Wilks' $\lambda = .814$, F (4, 154) = 8.774, $p < 0.0005$, partial eta squared = 0.186) were identified. ANOVA results identified significant effects for Group for avoidant-focused coping, with the Clinical group engaging in a significantly higher level of avoidant-focused coping strategies in comparison to the Non-clinical group ($p = 0.028$), of small effect, at Time 1 ($d = 0.39$) and at Time 3 ($d = 0.49$). ANOVA results identified significant main effects of Time for both avoidant-focused coping and approach-focused coping. Pairwise comparisons suggested that between the Reopening of Society Phase (Time 2) and the Case Acceleration Phase (Time 3), the Clinical group displayed a significant increase, of small effect, in level of avoidant-focused coping strategies employed ($p = 0.004$; $d = -0.29$) and a significant decrease, of small effect, in level of approach-focused coping strategies employed ($p = 0.046$; $d = 0.20$). Between Time 1 and Time 3, the Clinical group displayed a significant increase in use of avoidant-

focused coping strategies (p = 0.003), of small effect size (d = -0.25) and displayed a significant decrease in use of approach-focused coping strategies (p = 0.001), of small effect size (d = 0.34).

A significant decrease in the use of approach-focused coping strategies was identified in the Non-clinical group between the Reopening of Society Phase (Time 2) and the Case Acceleration Phase (Time 3) (p = 0.012; d = 0.40). Between Time 1 and Time 3, the Non-clinical group displayed a significant decrease in approach-focused coping strategies (p = 0.002), of medium effect size (d = 0.58).

3.5. Child Behaviour

The fifth research question concerned the effect of presence or absence of significant levels of child externalising behaviour problems at the outset of the Covid 19 pandemic and the passage of time on variables in the child behaviour domain, which consisted of four SDQ variables. The MANOVA for this domain yielded a significant Group X Time interaction effect (Wilks' λ = 0.748, F (8, 150) = 6.311, p <0.0005, partial eta squared = 0.252), and a significant effect for Group (Wilks' λ = 0.359, F (4, 154) = 68.718, p <0.0005, partial eta squared = 0.641). ANOVA results indicated that significant Group X Time interactions occurred on the following subscales of the SDQ: Total Difficulties, Conduct Problems, and Hyperactivity/Inattention Problems. The pattern of results was similar for all three subscales. As the Total Difficulties subscale incorporates items from the Conduct Problems, and Hyperactivity/Inattention Problems scales, tests of simple main effects on the Total Difficulties scale are reported. On the SDQ Total Difficulties scale there was a statistically significant difference between groups at all time points. Pairwise comparisons suggested the Clinical group exhibited a downward trajectory of significant reductions in child emotional and behavioural problems, of small effect, between the Delay and Mitigation Phase (Time 1) and the Reopening of Society Phase (Time 2) (p = 0.001; d = 0.24) and between the Reopening of Society Phase (Time 2) and the Case Acceleration Phase (Time 3) (p = 0.007; d = 0.24). A medium effect (d = 0.50) for improvement in scores for child behaviour and emotional difficulties between the Delay and Mitigation Phase (Time 1) and the Case Acceleration Phase (Time 3) (p <0.0005) was identified, indicating that children in the Clinical group demonstrated positive adjustment as the COVID-19 pandemic progressed. The Non-clinical group exhibited a significant increase, of small effect (d = -0.32), in child emotional and behavioural problems between the Delay and Mitigation Phase (Time 1) and the Reopening of Society Phase (Time 2) (p = 0.018).

4. DISCUSSION

The aim of this study was to determine how the presence or absence of significant levels of child externalising difficulties at the outset of the COVID-19 pandemic, and the passage of time over three different phases of Wave 1 of the COVID-19 pandemic, affected parents' perception of their children's behavioural difficulties, sources of stress in their lives, their stress responses, their well-being, and their coping strategies. Results show that, parents of children with externalising difficulties experienced significantly higher levels of stress related to being a parent, stress related to parenting and personal/family factors during the COVID-19 pandemic, significantly lower levels of wellbeing, and engaged in significantly higher levels of avoidant-focused coping strategies, in comparison to parents of children without externalising difficulties. This cohort, however, did not report greater distress, as per the IES-R, than parents of children without externalising difficulties. Of note, over the three time points of the study, parents of children with externalising difficulties reported a reduction in their children's behavioural difficulties. This provided partial support for hypothesis 1: that parents of children with externalising difficulties, in comparison to parents of children without such difficulties, would exhibit significantly poorer outcomes.

There was a significant difference between scores obtained during time points for stress related to parenting during the COVID-19 pandemic, stress related to the impact of the COVID-19 on personal/family factors, and type of coping strategies employed. There were no significant differences however, found between time points for stress related to being a parent, distress responses to the COVID-19 pandemic, psychological wellbeing, or levels of gratitude experienced. This provided partial support for hypothesis 2: that there would be a significant difference between scores on variables in all domains obtained across the three time points of the study.

Parents of children with externalising difficulties did not demonstrate a trajectory of decreasing adjustment over time, in comparison to parents of children without externalising difficulties, for parenting stress, stress related to the COVID-19 pandemic, wellbeing, distress responses to the COVID-19 pandemic, or coping. These results did not support hypothesis 3: That compared to parents of children without externalising difficulties, parents of children with externalising difficulties would report poorer adjustment as the COVID-19 pandemic progressed.

Children with externalising difficulties, in comparison to children without such difficulties, showed significant improvements in adjustment over three time points during Wave 1 of the COVID-19 pandemic. This result did not support hypothesis 4, which predicted that children with externalising difficulties would show poorer adjustment on indices of behavioural difficulties as the COVID-19 pandemic

progressed.

This preliminary research adds to the expanding evidence base of the impact of the COVID-19 pandemic. It has been well established that parents of children with externalising difficulties experience increased levels of stress,[11,12] and the current study suggests that this cohort also experienced poorer psychological outcomes during the COVID-19 pandemic. Similar results have been documented during the pandemic in parents of children with autism[42] and in caregivers of children and adults with ID.[43] Emerging research has identified the negative impact which stress experienced by parents during the COVID-19 pandemic can have on their children, including an increase in the likelihood for child abuse and maltreatment,[44,45] highlighting the need for adequate interventions to support parents manage stress.

In our study, parents in both groups documented a significant increase in stress related to parenting during the COVID-19 pandemic between the Delay and Mitigation Phase (Time 1) and the Reopening of Society Phase (Time 2), followed by a significant decrease in stress of small effect, between the Reopening of Society Phase (Time 2) and the Case Acceleration Phase (Time 3). This may suggest that parents perceived parenting during the easing of restrictions as more stressful, in comparison to parenting during stay-at-home orders, which may reflect an increased level of responsibility in ensuring children's adherence to public health measures, as opportunities for socialising increased. Parental stress and anxiety in response the reopening of schools during the COVID-19 pandemic is an area in which research is emerging (e.g., 46). However, there is no published research yet, to our knowledge, examining parent responses to the easing of restrictions.

The Clinical group, but not the Non-clinical group, exhibited a significant downward trajectory of reduction in stress related to the impact of the COVID-19 pandemic on personal/family factors from Time 1 to Time 3. This may reflect the ability of parents of children with externalising difficulties to adapt over time to the changes in family life brought about by the COVID-19 pandemic, which could be understood in the context of resilience.[47] One hypothesis to explain this is that the experiences in raising a child with an externalising difficulty, has enabled parents to develop the ability to adapt to novel stressful situations experienced within their family systems. Many families of children with neurodevelopmental diagnoses display resilience in response to behavioural, service-based, and societal challenges.[48] Recent research, however, has found families of youth with comorbid ADHD and autism to have significantly lower levels of family resilience than youth with solely ADHD, or youth without autism or ADHD,[49] suggesting that resilience in this cohort is an area requiring further exploration.

Of concern is that parents in both groups in our study, exhibited a significant downward trajectory in use of approach-focused coping strategies from Time 1 to Time 3, and that parents in the Clinical group exhibited a significant increase in use of avoidant-focused strategies from Time 1 to Time 3. In parents of children with externalising difficulties, an avoidant-focused coping style has been found to be involved in a process which predicts increased level of parental depression.[50] Actively engaging in avoidant-focused coping strategies during the COVID-19 pandemic has been associated with mental health difficulties in adults.[51] These associations highlight the need for supports to assist parents in developing sustainable and helpful coping strategies.

An unexpected outcome of the study was that children with externalising difficulties displayed better adjustment for behavioural and emotional difficulties over the course of Wave 1 of the COVID-19 pandemic. Although longitudinal data from the UK found a gradual decrease in child internalising and externalising behaviour during the COVID-19 pandemic, children who had higher levels of externalising behaviour prior to lockdown, experienced more stress during lockdown, resulting in an increase in externalising behaviour,[52] which is not consistent with our findings. The resilience theory discussed above is one hypothesis for our results, whereby children with externalising difficulties exhibited better ability to adjust and adapt as time progressed. Another factor which may have contributed to this finding is that schools were closed in Ireland for the duration of this study. Children with externalising difficulties often experience difficulties in school, such as children with ADHD may have difficulty maintaining concentration or staying seated, or children with autism may struggle with social interactions with peers and may experience distress related to transitions. For children with such difficulties, a break from the demands of an environment which is bound by many rules and social expectations may have been experienced as a relief. Another possibility is that children with externalising difficulties may have benefited from increased time spent with, and availability of, family members. Strengthening relationships and development of skills, such as tolerance, during stay-at-home orders has been reported by Australian families.[53] As parental responsiveness progressively supports the child's modulation, gradation, and containment of strong affect,[54] it is possible that children benefited from increased proximity to caregivers who could support this process.

Limitations and Future Research

Limitations of the current study included that data collected was not compared with data collected in pre-pandemic circumstances, in addition to unequal group sizes. Additionally, a high level of attrition resulted in a reduction in sample size (N=239 to

N = 159) as only participants who provided >50% of data over the three time points were included in analyses, as it has been suggested that when imputing data, if proportions of missing data are very large on important variables, then results may only be considered as hypothesis generating.[55]

Future research is recommended to examine mediating or moderating variables that may have impacted our results, in addition to a qualitative exploration of the experiences of parents of children with externalising difficulties during different phases of the pandemic.

Conclusion

This study provides important information regarding the trajectory of psychological outcomes in parents of children with externalising difficulties over the first wave of the COVID-19 pandemic. Results highlight the need for the provision of adequate supports to assist this cohort to manage stress, improve wellbeing, and to develop sustainable coping strategies. Results also demonstrate the ability of children with externalising difficulties to adjust and adapt during the COVID-19 pandemic.

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