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Parental experiences of education at home during a pandemic

Sanna Rehman, sanna_rehman@yahoo.co.uk

 <https://orcid.org/0000-0001-7335-5150>

University of Aberdeen, Scotland

Katherine Gibson Smith, kathrine.gibson.smith@abdn.ac.uk

 <https://orcid.org/0000-0002-7341-4701>

University of Aberdeen, Scotland

Amudha Poobalan, a.poobalan@abdn.ac.uk

 <https://orcid.org/0000-0002-6975-3874>

University of Aberdeen, Scotland

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Parental experiences of education at home during a pandemic

Sanna Rehman, sanna_rehman@yahoo.co.uk

University of Aberdeen, Scotland

Katherine Gibson Smith, kathrine.gibson.smith@abdn.ac.uk

University of Aberdeen, Scotland

Amudha Poobalan, a.poobalan@abdn.ac.uk

University of Aberdeen, Scotland

Abstract

This study aimed to explore parental experiences of home education including the advantages, challenges and coping strategies utilised. An online cross-sectional questionnaire survey was conducted which included: demographic questions, the Perceived Stress Inventory, and open-ended questions. Participants ($n = 152$) were recruited from support groups and social networks. The majority of the participants were female (81.6%), working full time (40.8%), married (79%) and had been home educating since COVID-19 school closures (79.6%). The mean perceived stress score among participants was 20.6 ($SD = 9.7$) which represented a moderate level of stress. The results of this study showed significantly higher levels of perceived stress for parents who had been home educating due to COVID-19 school closures compared to parents who had been electively home educating. Parents who had been electively home educating for less than six months experienced significantly higher levels of stress compared to parents who had been electively home educating for more than six months. Analysis of marital status showed that single parents experienced significantly higher levels of stress compared to those living with their partner. Qualitative analysis identified three themes underpinning the home education experience: positivity in home education; challenges and demands; coping methods. This study provided insight into parental experiences throughout an unprecedented time within society and highlighted the ways in which families with school-aged children were impacted throughout a pandemic environment. The outcomes provide indicators which may be used in developing appropriate interventions to support home educators.

Keywords: psychology, home education, pandemic, parental wellbeing, stress

Introduction

The number of children being educated at home increased exponentially in March 2020 when the United Kingdom (UK) Government announced the nationwide closure of educational settings in an effort to manage the spread of the contagious disease, Coronavirus (COVID-19). Following the initial outbreak of COVID-19 in late 2019, the disease spread globally and national response efforts included evacuations, lockdowns and use of face masks (Koh, 2020). While lockdowns throughout the UK varied, the initial lockdown was implemented on March 26th 2020 and lasted until June 1st 2020. It included curfews, travel restrictions and movement control orders (Miles, Stedman and Heald, 2021). The temporary cessation of face-to-face teaching and shift to online, self-directed or parent-supported teaching significantly disrupted the provision of education and fuelled widespread discussions concerning the likely rise of educational inequality (Grewenig, Lergetporer, Werner, Woessmann and Zierow, 2020). The restrictions imposed to manage COVID-19 had a significant impact on adult wellbeing. This is likely to have affected the home education environment and the children educated within it, given the impact of parental wellbeing on children's wellbeing and behaviour (Duineveld, Parker, Ryan, Ciarrochi and Salmela-Aro, 2017; Spinelli, Lionetti, Pastore and Fasolo, 2020). While it is important to understand the educational consequences that the pandemic has had on students and their education, it is also vital to widen this perspective and consider the experiences of caregivers who delivered home education. This perspective is crucial in light of the many caregivers who experienced additional stressors which challenged their health and economic wellbeing (Brown, Doom, Lechuga-Peña, Watamura and Koppels, 2020). These stressors included parent and child physical health, risk of COVID-19, parents' relationship, unemployment, salary reductions due to being furloughed, requirements to self-isolate, access to childcare assistance, exercise restrictions, working from home, reduced socialising opportunities, and limited information about the consequences of COVID-19 (Morelli, Cattelino et al., 2020). Exploring the impact of COVID-19 on parents and their experiences of educating throughout COVID-19 is important in starting to understand the possible impact of the pandemic on their children. Throughout the course of the COVID-19 pandemic, a variety of research has been published yet research exploring the experiences of home educating parents throughout the UK remains underrepresented. Furthermore, this study includes the unique perspective of parents who did not have a choice about home education and will complement previous research of the experiences of parents who have chosen to educate their children at home, known widely as 'elective home education.'

Previous research on home education has focused mostly on: learning methods and strategies (Gann and Carpenter, 2018; Hanna, 2012); parental motivations to home educate (Collom, 2005; Green and Hoover-Dempsey, 2007; Marchant and MacDonald, 1994; Mazama and Lundy, 2015; Noel, Stark and Redford, 2013; Rothermel, 2003; Van Galen, 1987); the academic performance and outcomes of those who are home educated (Barwegen, Falciani, Putnam, Reamer and Stair, 2004; Cogan, 2010; Garas-York, 2010; Ice and Hoover-Dempsey, 2011; Martin-Chang, Gould and Meuse, 2011); case studies and narrative analyses (Ahi and Sengil-Akar, 2021; Sheng, 2015; Shepherd, 2010). Studies have also focused on views and perspectives of home education as a concept (Harding, 2011; Kendall and Atkinson, 2006; Lines, 1991; Nelson, 2014; Van Galen, 1991) and as a method of educating 'gifted'

children (Jolly et al., 2013) and children with special needs or disabilities (Duvall, 2005; Parsons and Lewis, 2010). Studies have qualitatively explored the home education experience by exploring parental stress experienced by participants from the United States of America (USA) (Myers, 2017; Rathmell, 2012; Windish, 2017). Feelings of stress and loneliness can be a reflection of parental wellbeing which is defined by the extent to which individuals experience positive emotions and satisfaction (Di Fabio and Palazzeschi, 2015). Parental wellbeing can also reflect a parent's coping strategies, caregiving satisfaction and emotional stability which can impact parent and child outcomes (King, King, Rosenbaum and Goffin, 1999; King, Wagener and Benson, 2006; Webster-Stratton, 1990). Aspects of parental wellbeing, such as stress, can have a significant impact on physical and mental health (Mayo Clinic, 2020). Coping strategies and resources reveal the ways in which individuals manage the impact of stressful events. Previous research in the field is limited as it does not represent the home education experience within a pandemic context consisting of stressors which will likely impact parental wellbeing.

In addition, Raja (2012) drew attention to a considerable gap in research concerning home education experiences that go beyond analysing motivation and academic performance. Research on parental perspectives of home educating experiences which detail the difficulties and strategies utilised by parents is lacking. Parents felt that specific challenges concerning home education were not reflected throughout available research (Shepherd, 2010). Globally, countries have undergone second and third waves of pandemic restrictions to curb the spread of the infectious disease. Throughout the UK, there has been a second wave of restrictions and another requirement to revert to home education. It is therefore vital that research explores and shares ways of supporting parents given the possibility of future pandemic related requirements to home educate. This study contributes to the development of understanding experiences in a bid to identify indicators which may be used to support parents educating at home during both pandemic and non-pandemic periods.

Study Purpose

The purpose of this study was to explore parental experiences of home education including advantages, challenges and coping strategies. The main objectives were to: explore the demographics of the home education environment; determine differences between demographics and stress; identify perceived advantages and challenges of home education and ways of coping with home education challenges.

Methodology

Design

An online cross-sectional survey was conducted using a questionnaire developed from a previously validated inventory and informed by existing literature. The survey was activated on May 13th 2020 and was closed on June 22nd 2020.

Participants

Participants included 152 UK parents educating children aged four to 18 years old at home. The majority of participants were female (81.6%), working full time (40.8%), married (79%) (Table 1).

Table 1: Background Characteristics of Parents Educating at Home

Participants	<i>n</i>	%
Gender		
<i>Male</i>	28	18.4
<i>Female</i>	124	81.6
Employment Status		
<i>Full-time</i>	62	40.8
<i>Part-time</i>	44	28.9
<i>Furloughed</i>	10	6.6
<i>Voluntarily Unemployed</i>	30	19.7
<i>Involuntarily Unemployed</i>	5	3.3
<i>Retired</i>	1	0.7
Marital Status		
<i>Single</i>	9	5.9
<i>Married</i>	120	79
<i>Living with Partner</i>	11	7.2
<i>Divorced</i>	9	5.9
<i>Separated</i>	3	2

Inclusion criteria for this study required eligible participants to be: currently residing in the UK, parents to children aged between four and 18, and children were currently being educated at home instead of being educated at a school.

The lead researcher systematically compiled a list of organisations, online support groups, blogs and forums that specialised in parent support and/or home education. Social media and online search engines were searched to identify specific parent support or home education organisation directories, general organisations, and smaller support groups. The organisations and support groups were contacted by email or private messenger with information about the study. The communication also contained a request to share the recruitment materials with parents who engage with the organisations. Participants were also invited via the lead researchers' social networks.

Data collection

The online questionnaire was developed by the research team and delivered using SmartSurvey's online software package. The survey link included a participant information sheet and consent form, which participants were required to complete prior to starting the survey. All responses were anonymous as participants were not required to provide any identifiable information and participants' IP addresses were automatically discarded and not stored after entering the survey link.

Demographic questions included gender, employment and marital status and the contextual home education environment (e.g. length of time educating, their motivation to educate and extent of

involvement). Stress was assessed using the validated 10-item psychological instrument for perceived stress (Perceived Stress Scale (PSS-10)) and permission for use of the instrument is provided publicly by the author (Cohen, 1988; Lee, 2012). Responses were measured using a five-point Likert scale. PSS-10 scores were obtained through reversing scores for questions 4, 5, 7, 8 and totalling the values to generate an overall stress score. Severity levels can be applied to an individual's total score to indicate that an individual is experiencing: low stress (0-10), moderate stress (14-26) or high stress (27-40). Three open-ended questions were included to explore parents' experiences of home education in terms of advantages, challenges and coping strategies.

Data Analysis

A minimum sample size of 130 participants was required based on Type 1 error of 5%, power of 80% and previous research exploring perceived stress in populations of home educating parents. Demographics and perceived stress data was analysed using IBM SPSS Statistics 25. Descriptive statistics were used to summarise the sample demographics and the distribution of the perceived stress variables. Based on the distribution of variables, appropriate inferential statistical analyses were carried out to explore differences between variables.

For all inferential testing involving employment status, participants who were voluntarily unemployed or retired were grouped together as one group: voluntarily unemployed. This allowed for use of Scheffé post hoc analysis as only one participant was assigned to the retired group.

Differences between stress and demographic characteristics were analysed using independent samples, Analysis of Variance (ANOVA) and Scheffé post hoc tests. P-values of ≤ 0.05 were considered statistically significant.

Data from optional open-ended questions were analysed using Braun and Clarke's (2006) reflexive thematic analysis framework. After initially coding 172 individual comments submitted by participants in response to three open-ended questions, the research team reviewed and discussed the generated codes before developing a coding framework which was applied to the full dataset. A semantic and inductive approach was applied and allowed the researcher to analyse and interpret patterns at the explicit surface level content of the qualitative data set. This is compared to a latent approach which looks to interpret underlying ideas and assumptions of datasets.

Ethical Approval

Ethical approval for this study was obtained from the Institution's Ethics Review Board (CERB) - CERB/2020/4/1939.

Results

The majority of participants had been home educating since COVID-19 school closures ($n = 121$, 79.6%) and described themselves as "extremely involved" ($n = 77$, 50.7%) in home educating their children. Most participants home educated full-time ($n = 113$, 74.3%) and on a temporary basis ($n = 110$, 72.4%) due to COVID-19 school closures ($n = 120$, 78.9%) (Table 2).

Table 2: Background Characteristics of Parents' Home Education Experience

Participants	<i>n</i>	%
Are all of your school-aged children home educated?		
Yes	135	88.8
No	17	11.2
Length of Home Education		
<i>Since COVID-19 School Closures</i>	121	79.6
<i>Less than six months</i>	4	2.6
<i>More than six months</i>	27	17.8
Parental Involvement		
<i>Not at all involved</i>	8	5.3
<i>Slightly involved</i>	10	6.6
<i>Moderately involved</i>	18	11.8
<i>Very involved</i>	39	25.7
<i>Extremely involved</i>	77	50.7
Home Education Structure		
<i>Full-time</i>	113	74.3
<i>Part-time</i>	39	25.7
Home Education Future		
<i>Temporary</i>	110	72.4
<i>Permanent</i>	42	27.6
Home Education Motivation		
<i>Personal choice</i>	23	15.1
<i>COVID-19 school closures</i>	120	78.9
<i>To support disability or temporary illness</i>	9	5.9

Perceived Stress and Demographics

Univariate analysis of the PSS-10 ($n=152$) suggested that data was normally distributed. Descriptive statistics applied to the sample's scores on the PSS-10 summarised perceived stress (Mean score = 20.6, Standard Deviation = 9.7) and showed that as parents' involvement with their children's home education increased, mean stress scores also increased.

One-way analysis of variance (ANOVA) identified statistically significant differences (Table 3) between stress and marital status ($p = 0.016$), length of home education ($p \leq 0.001$), parental involvement ($p = 0.002$) and home education motivation ($p \leq 0.001$).

Table 3: Results of differences between Perceived Stress and Demographic Variables using Analysis of Variance

Variable	Mean (SD)	df	F	p
Gender		1, 150	3.13	0.154
Male (n = 28)	18.2 (11.4)			
Female (n = 124)	21.1 (9.2)			
Employment Status		4, 146	1.91	0.096
Full-time (n = 62)	22.8 (10.8)			
Part-time (n = 44)	18.4 (9.3)			
Furloughed (n = 10)	22.0 (7.8)			
Voluntarily unemployed (n = 31)	18.1 (7.6)			
Involuntarily unemployed (n = 5)	24.2 (7.9)			
Marital Status		4, 147	3.14	0.016*
Single (n = 9)	27.7 (8.4)			
Married (n = 120)	20.7 (9.6)			
Living with Partner (n = 11)	12.9 (7.8)			
Divorced (n = 9)	20.2 (7.1)			
Separated (n = 3)	22.7 (15.0)			
Length of Home Education		2, 149	1.59	$p \leq .001^{***}$
Since COVID-19 School Closures (n = 121)	21.8 (9.2)			
Less than six months (n = 4)	29.3 (11.27)			
More than six months (n = 27)	13.7 (8.4)			
Parental Involvement		4, 147	4.53	0.002**
Not at all involved (n = 8)	11.9 (12.2)			
Slightly involved (n = 10)	12.1 (5.6)			
Moderately involved (n = 18)	20.1 (8.2)			
Very involved (n = 39)	21.8 (6.3)			
Extremely involved (n = 77)	22.1 (10.7)			
Home Education Structure		1, 150	0.02	0.904
Full-time (n = 113)	20.6 (10.3)			
Part-time (n = 39)	20.4 (7.7)			
Home Education Future		1, 150	2.75	0.099
Temporary (n = 110)	21.4 (9.2)			
Permanent (n = 42)	18.5 (10.7)			
Home Education Motivation		2, 149	11.93	$p \leq .001^{***}$
Personal Choice (n = 23)	12.2 (8.1)			
Support disability/illness (n = 9)	24.2 (9.4)			
COVID-19 Closures (n = 120)	21.9 (9.2)			

* $p \leq 0.05$, ** $p \leq .01$, *** $p \leq .001$

Scheffé post hoc analysis of marital status showed significant differences ($p = 0.019$) between perceived stress which was higher for single parents ($M = 27.7$, $SD = 8.4$) compared to those living with their partner ($M = 12.9$, $SD = 7.8$). Scheffé post hoc analysis of length of education revealed higher perceived stress scores for parents who had been home educating for less than six months ($M = 29.3$, $SD = 11.3$) compared to ($p = 0.007$) for parents who had been home educating for more than six months ($M = 13.7$, $SD = 8.4$). Scheffé post hoc analysis of home education motivation revealed that mean perceived stress scores were statistically significantly lower ($p \leq 0.001$) for parents who home educated due to personal choice ($M = 12.2$, $SD = 8.1$) compared to parents who home educated due to COVID-19 school closures ($M = 21.9$, $SD = 9.2$).

Thematic Analysis of Open-ended Questions

Analysis of the open-ended questions produced three themes: positivity in home education; challenges and demands; and coping methods. Themes and sub-themes are presented in Figure 1.

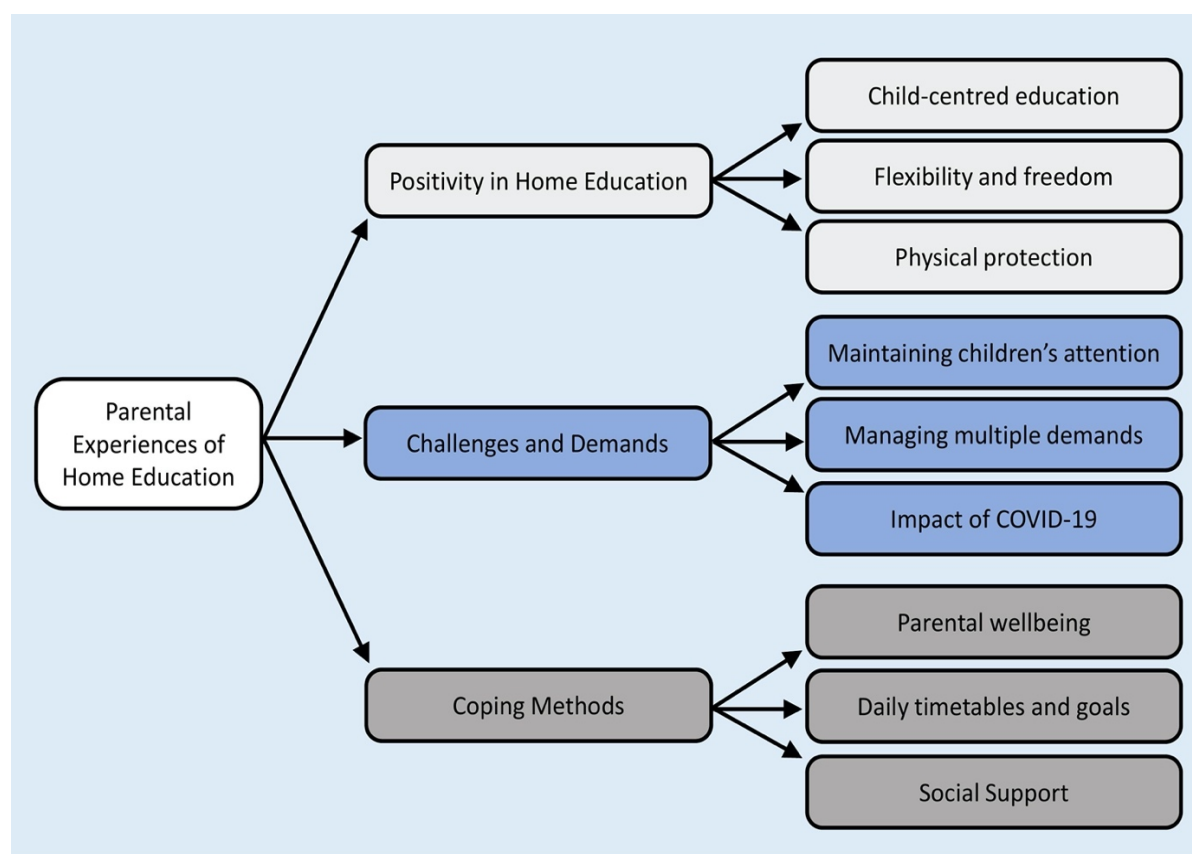


Figure 1: Thematic map of themes and sub-themes generated from analysis of open-ended questions of home education experiences

Positivity in Home Education

This theme represented participants' perceived advantages of home education highlighting sub-themes of: child-centred education; flexibility and freedom; and physical protection. Relevant quotes are presented in (Table 4).

Child-centred education

Participants appreciated a one-to-one format where they could give their children more attention and use learning strategies that were tailored to their children's needs. Participants also felt that they could do this at a pace that suited both parent and child. Participants drew attention to their ability to fulfil their child's specific educational interests and needs, such as those required for children with special educational needs (SEN). Involvement in their child's learning, observing their child's capabilities and spending more quality time together were all considered to be advantages.

Flexibility and freedom

Participants highlighted the ability to provide a flexible approach in choosing learning methods, different subjects, and daily structure. Flexibility included being able to choose different practical learning environments such as utilising an outdoor setting to inspire children. Participants highlighted the emergence of reduced pressure due to increased flexibility and freedom of choice.

Physical and emotional protection

Participants felt that home education protected children from the effects of bullying and negative social experiences including reduced risk of exposure to COVID-19 infections.

Table 4: Example quotations representing sub-themes stemming from the theme: positivity in home education

Sub-theme	Example Quotations
Child-centred education	<p>"Children can learn in their own way, at their own speed, about things that stimulate them. As they are keen to learn they ask, explore, and create, without being made to do the same as 29 others are doing." (<i>Participant 1: male, permanent HE</i>)</p> <p>"Opportunity to explore methods of learning that is relevant and sparking to the student – enabling them to learn." (<i>Participant 2: female, permanent HE</i>)</p>
Flexibility and freedom	<p>"There is a focus and dedication to certain topics that we can have without feeling the need to rush on to the next topic – as is done at school." (<i>Participant 3: female, temporary HE</i>)</p> <p>"Freedom to learn what interests them in depth, at the right time and in the right way for them." (<i>Participant 4: female, permanent HE</i>)</p>
Physical protection	<p>"Children are safe and not exposed to the virus." (<i>Participant 5: female, temporary HE</i>)</p> <p>"Less peer pressure, no bullying." (<i>Participant 6: female, permanent HE</i>)</p>

Challenges and Demands

Perceived challenges of home education were demonstrated in: maintaining children's attention; managing multiple demands; and impact of COVID-19 (Table 5).

Maintaining children's attention

Participants experienced challenges in maintaining children's attention, engagement and motivation. Difficulty was expressed in teaching multiple children and children displaying challenging behaviours.

Managing multiple demands

Balancing and delivering the requirements from roles of being a home educator, an employee and a parent while maintaining a household, emerged as a particular challenge for some.

Table 5: Example quotations representing sub-themes stemming from the theme: challenges and demands

Sub-theme	Example Quotations
Maintaining children's attention	<p>"Child with Special Education Needs struggles to accept doing 'school' work at home." (<i>Participant 7: female, temporary HE</i>)</p> <p>"Engaging my children to listen, and motivating them." (<i>Participant 8: female, temporary HE</i>)</p> <p>"Teen does not always want to listen to the parent." (<i>Participant 9: female, temporary HE</i>)</p>
Managing multiple demands	<p>"As they reach adolescence they need to rebel and grow away from parents. This is healthy, but it makes it difficult to be the inspiring teacher saying "look at this, isn't it fun/fascinating?" if you are also the person making them get out of bed, be kind to siblings, etc." (<i>Participant 10: male, permanent HE</i>)</p> <p>"My husband and I have both been working throughout lockdown so much of my children's learning has been completely unsupported which is recoverable short-term but certainly not long-term." (<i>Participant 11: female, temporary HE</i>)</p>
Impact of COVID-19	<p>"Children have no one to play with, to learn from or to work with." (<i>Participant 12: female, temporary HE</i>)</p> <p>"Insufficient computers despite having three, we don't have enough for three children and work." (<i>Participant 13: female, temporary HE</i>)</p>

Impact of COVID-19

Home education during COVID-19 school closures brought the challenge of lack of facilities, support and resources to adequately teach their children at home. A lack of technological resources, such as individual computers for multiple children within a household, was a clear frustration. Participants voiced concern about costs for online resources and lack of support. Furthermore, participants found fulfilling the SEN of their children, after school closures and the subsequent deviation from typical routines, challenging. Parents who chose to home educate permanently due to personal choice, or to support disability or temporary illness, detailed the negative impact of social restrictions on their children's learning environment.

Coping Methods

Several coping strategies were highlighted by parents focussing on: parental wellbeing; daily timetables and goals; and support groups (Table 6).

Table 6: Example quotations representing sub-themes stemming from the theme: challenges and demands

Sub-theme	Example Quotations
Parental wellbeing	<p>"Mindfulness has kept me sane. Zoom calls and webinars with mindfulness and guided meditations." (<i>Participant 14: female, permanent HE</i>)</p> <p>"Trying to get out for a walk on my own, listening to an audio book or to music." (<i>Participant 15: female, temporary HE</i>)</p>
Daily timetables and goals	<p>"Having a very flexible schedule for the day." (<i>Participant 16: female, temporary HE</i>)</p> <p>"Making sure we have movement or play breaks after each learning activity." (<i>Participant 17: female, temporary HE</i>)</p>
Social Support	<p>"I have joined several online social media groups that focus on how other parents are coping with adjusting to home educating during lockdown. They share a lot of resources, advice and updates on government advice and developments concerning lockdown and school closures." (<i>Participant 18: male, temporary HE</i>)</p> <p>"Networking with local and national home educators and organisations." (<i>Participant 19: male, permanent HE</i>)</p>

Parental wellbeing

Participants commented on the importance of looking after their own wellbeing to manage education related difficulties. Relaxation techniques such as breathing exercises, mindfulness and meditation

were adopted to maintain parental wellbeing. Channelling a positive mindset and attitude helped participants to maintain their wellbeing. A physical approach to maintaining parental wellbeing included both parents and children taking frequent breaks and spending time outdoors.

Daily timetables and goals

Participants used flexible daily timetables and schedules to help prioritise demands, create routine and structure. Reward charts and goals for children were used to keep children engaged and to reinforce positive behaviours.

Social support

Participants spoke of receiving and providing social support to help navigate challenges. Support forms included using technology for socialising, parent group chats, physical and online support groups, talking to family members and socialising with other parents.

Overall, the current study yielded important results concerning participants' demographics and perceived stress levels. Stress scores appeared to increase as parents' involvement with their children's home education increased. Single parents had significantly higher levels of stress compared to parents living with their partner. For parents who were electively home educating, stress levels were significantly higher for parents who had been educating for less than six months compared to those who had been educating for more than six months. Regarding stress and motivation to home educate, parents who were home educating to support COVID-19 school closures had significantly higher levels of stress than those who were educating at home out of personal choice. Finally, the thematic analysis of open-ended questions provided a rich and detailed lens throughout which the perspectives of home educators' experiences were captured and summarised.

Discussion

The COVID-19 pandemic required society, on a global scale, to adapt the ways in which it operated. From June 2020 until March 2021, the UK underwent a variety of local area-specific lockdowns in addition to further national lockdowns. Throughout this period, primary and secondary schools throughout the country re-opened and closed several times in response to local area and national government recommendations. Education represented one of many domains which faced significant disruption with many facing little choice but to educate their children at home (Cattan, Farquharson, Krutikova, Phimister and Sevilla, 2020). Consequently, there was a need to understand the home educating experience during the pandemic and its impact to develop future support structures for both the communities who had opted to home educate prior to COVID-19, and to those who defaulted to home education because of school closures.

This study highlights both positive and negative impacts to parental wellbeing during a global pandemic. Key findings from this study include significantly higher levels of stress for parents who had been electively home educating for less than six months or home educating due to COVID-19 school closures compared to parents who had been electively home educating for more than six months. Going forward, the findings highlight the importance of ensuring parents are well supported in terms of provision of educational resources and the promotion of coping mechanisms to allow them to better manage their

wellbeing. This is particularly important in the current context, where we are beginning to understand the widespread negative impacts of the pandemic restrictions on wellbeing. It is also essential to understand how to support parents in the event of future health pandemics which result in school closures and home education. Interestingly, this study found that 79.6% of the study sample were home educating due to COVID-19 school closures, but only 72.4% of the sample would continue to do so on a temporary basis. This suggests that 6.2% of the sample who home educated because of school closures, planned to continue to home educate their children in the future.

Parents who place significant focus on children's academic performance are more likely to experience the psychological effects of pressure including stress (Deater-Deckard, 2008). Robinson et al. (1995) described a form of childrearing in which parents go to efforts to push their children to "achieve", typically in academia. Educational success is often perceived as vital in providing children and adolescents with an adult future unrestricted of opportunity (Cichy, Lefkowitz, Davis and Fingerman, 2013; Karabanova and Bukhalenkova, 2016; Kärkkäinen, Rätty and Kasanen, 2009) and consequently parents may experience stress as a result of pressures stemming from the perception of academic success as crucial (Ablard and Parker, 1997). This effect may be enhanced for home educating parents who believe that they are directly responsible for the delivery and maintenance of their child's education. While the study's findings concerning the positive relationship between parental involvement and perceived stress could be attributed to many factors – the lead researcher hypothesised that a possible explanation could be the level of support received from different educational institutions. This hypothesis stems from research summarising school approaches throughout COVID-19 which varied from providing daily support to pupils using Zoom classroom sessions to providing worksheets, electronic tablets and encouraging parent supported self-guided learning (Iivari, Sharma and Ventä-Olkkonen, 2020; Oyedotun, 2020; Reimers and Schleicher, 2020). Parents of children attending schools that used Zoom to develop a virtual teaching environment throughout standard school operating hours may have experienced less stress than parents with children who had to rely on self-guided work or parental support. Therefore, children's level of education and ability to self-guide their work may have impacted parents' experiences.

Social support can be critical for the maintenance of wellbeing, physical and mental health (Baqutayan, 2011; Kamarck, Annunziato and Amateau, 1995; Uchino, Cacioppo and Kiecolt-Glaser, 1996) with positive forms of support demonstrating a protective effect concerning stress (Ozby, Johnson et al., 2007). Therefore, the presence of a spouse and the ability to provide a form of social support within the familial household may contribute to a parents' alleviation of stress. This resonates with previous research reporting higher levels of stress among single mothers, who report low levels of social support and social involvement (Cairney, Boyle, Offord and Racine, 2003; Copeland and Harbaugh, 2005). Moscardino et al. (2021) found that parental stress was positively associated with difficulty in managing their children's learning. These differences became non-significant after controlling for family functioning and the authors concluded that supportive and positive resources within the family's network are essential to reducing parental stress. A study from the USA found parental stress to be negatively associated with preparation to educate at home (Lee, Ward, Chang and Downing, 2021). This study

found that perceived stress was significantly higher for single parents compared to those living with their partner. This emphasises the importance of the current study's findings concerning the high stress severity level of single parents and low stress severity level for parents living with their partner which may have been amplified throughout COVID-19 due to pandemic restrictions surrounding access to social support networks.

Positivity in home education, produced as a theme from thematic analysis, closely relates to previous research exploring the benefits of home education which included: personalised learning, increased family time, protection of children, encouraging independence (Franky and Chiappe, 2018; Kunzman and Gaither, 2013) and providing a highly flexible social learning environment (Baidi, 2019; Calderwood, 2013; Williams, 2018). Challenges and demands, a further theme produced from this study, aligns with previous identification of difficulties in balancing competing demands, teaching children of different ages, structuring learning processes and understanding children's learning styles (Fields-Smith and Williams, 2009). A descriptive qualitative study collected data from 19 parents detailing their experiences of home education in Pakistan throughout the pandemic (Bhamani, Makhdoom et al., 2020). Parents felt that traditional in-person school education provides children with a daily routine and discipline by working to schedules which was not easily replicated at home. They also reported the technological challenges of educating more than one child at home in situations where there are not enough resources, such as tablets and computers, at home. Similar challenges were reported by Misirli and Ergulec (2021) who surveyed 983 parents in Turkey using a questionnaire which contained two open-ended questions. In addition to technical and infrastructure related challenges, their study found that parents identified reduced communication amongst students and with their teachers to be challenging. The present study identified a challenge, managing multiple demands, which was established in Garbe et al.'s (2020) study of 112 parents in the USA who were asked to detail their most difficult challenge encountered while home educating. Difficulty in balancing parent-work demands and the educational needs of their children, balancing the needs of multiple children, finding personal balance, and feeling overwhelmed were reported as sub-themes to: balancing responsibilities. Some parents even reported the consequences of this challenge – such as having to implement decisions on which area to spend more time on and feelings of guilt.

Blurred boundaries between being the parent and teacher was a challenge faced by parents based on this study's findings. Parents reported that using their living environments for education was confusing for children as those same environments were usually used to facilitate play (Weaver and Swank, 2021). The current study reported the specific challenge of meeting the SEN of children within the home environment due to a significant deviation from typical routines and daily structures as highlighted by other studies. Greenway and Eaton-Thomas's (2020) study demonstrated that parents struggled to educate children with SEN and disabilities who were home educated during the pandemic. Parents reported feeling unprepared and inadequately equipped to home educate their children, and feared that their children's home learning would have a detrimental and negative impact on both their children's education and mental wellbeing.

In spite of the challenges faced by parents, several benefits were identified in the current study and have been reported in previous literature. This includes personalised learning, increased family time, protection of children, encouraging independence (Franky and Chiappe, 2018; Kunzman and Gaither, 2013) and providing a highly flexible social learning environment (Baidi, 2019; Calderwood, 2013; Williams, 2018). In addition, our study details specific ways in which parents coped with the challenges of home education including: the use of mindfulness, regular exercise, having flexibility in each day's academic timetable and using reward systems to encourage children's good behaviours. Parents also used regular online or telephone communication and socialising with other parents, family members and online support group members as a way to cope.

Strengths and Limitations

This study captured the home education experience within a unique landscape of societal disruption where global attention was focused on the prioritisation of safety and associated restrictions. This study highlights the vital ways in which parents can be affected by school closures and the consequences of the COVID-19 pandemic. It also provides an understanding of home educator experiences in the case of continued waves or future pandemics resulting in further or continued restrictions.

One of the limitations of this study concerns selection bias and the non-probability convenience sampling method employed to recruit participants. Parents who were not linked to any online support groups or social networks were unlikely to have had the opportunity to participate in this study. Given that the very nature of online support groups is to enhance an individual's connectedness and provide support to a community with shared interests, the experiences of parents who were not a part of these groups would not be reflected in this study. Therefore, while social support and use of online support groups and social media emerged as an identifiable way of coping with home education challenges, it should be considered with caution as this form of coping represents the method by which participants were recruited. Study participation required access to an internet enabled device and therefore potentially excluded parents who did not have such access.

Implications

This study furthers the understanding of the experiences and wellbeing of both elective home educators and those who did not have a choice due to the pandemic. This study remains to be one of the first studies to explore and capture the immediate response to home education during COVID-19 throughout the UK. It contributes to the emerging evidence on the educational consequences of the COVID-19 pandemic and provides indicators that can be built on to develop interventions to support parents whilst home educating.

There is evidence that negative aspects of parental wellbeing, such as stress, have been associated with less optimal parenting and child behavioural issues, parents' perceptions of competence in parenting (Huang, Bornheimer, Dankyi and Aikins, 2018; Neece, Green and Baker, 2012) and declines in mental health (Helgeson, Becker, Escobar and Siminerio, 2012). If this stress is exacerbated by the pressures of home educating, then there is a crucial need to support parents, irrespective of the pandemic.

Further research is recommended to explore educator wellbeing with the intention of formulating an evidence-base for developing appropriate interventions with the aim of promoting home educator's wellbeing. This is particularly important to ensure support for the wellbeing of pre-COVID-19 permanent home educators who will continue to educate their children in this format while under pandemic restrictions.

Conclusion

The study's findings provide unique insight into parental experiences and psychological wellbeing throughout an unprecedented time within society by establishing significant differences between perceived stress and demographics such as parental involvement. Analysis of home education experiences added to existing literature concerning advantages and challenges of home education, while illuminating coping methods that had not been previously reported. The study combined a plethora of experiences within the context of education. It mapped out the significant impact to day-to-day life of home educating during a pandemic and highlighted ways in which parents could be further supported in their role as educators. A supportive intervention would promote both temporary and permanent home educators' wellbeing which would provide a beneficial impact to children's cognitive, social, emotional, and behavioural development.

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References

- ABLARD, K.E. and PARKER, W.D., (1997). Parents' achievement goals and perfectionism in their academically talented children. *Journal of Youth and Adolescence*, **26**, pp.651-667.
- AHI, B. and SENGIL-AKAR, S., (2021). Understanding the Initial Stories of Families Preferring Homeschooling: A Narrative Study. *Education and Urban Society*, **53**, pp.515-535.
- BAIDI, B., (2019). The role of parents' interests and attitudes in motivating them to homeschool their children. *Journal of Social Studies Education Research*, **10**, pp.156-177.
- BAQUTAYAN, S., (2011). Stress and social support. *Indian journal of psychological medicine*, **33**, p.29.
- BARWEGEN, L.M., FALCIANI, N.K., PUTNAM, S.J., REAMER, M.B. and STAIR, E.E., (2004). Academic Achievement of Homeschool and Public School Students and Student Perception of Parent Involvement. *School Community Journal*, **14**, pp.39-58.
- BHAMANI, S., MAKHDOOM, A.Z., BHARUCHI, V., ALI, N., KALEEM, S. and AHMED, D., (2020). Home learning in times of COVID: Experiences of parents. *Journal of Education and Educational Development*, **7**, pp.9-26.
- BRAUN, V. and CLARKE, V., (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, **3**, pp.77-101.
- BROWN, S.M., DOOM, J.R., LECHUGA-PEÑA, S., WATAMURA, S.E. and KOPPELS, T., (2020). Stress and parenting during the global COVID-19 pandemic. *Child abuse and neglect*, **110**, 104699.
- CAIRNEY, J., BOYLE, M., OFFORD, D.R. and RACINE, Y., (2003). Stress, social support and depression in single and married mothers. *Social psychiatry and psychiatric epidemiology*, **38**, pp.442-449.
- CALDERWOOD, J., (2013). *The Self-Propelled Advantage: The Parent's Guide to Raising Independent, Motivated Kids Who Learn with Excellence*. New York, NY: Morgan James Publishing.
- CATTAN, S., FARQUHARSON, C., KRUTIKOVA, S., PHIMISTER, A. and SEVILLA, A., (2020). *Trying times: how might the lockdown change time use in families?* IFS Briefing Note BN284, Institute for Fiscal Studies.
- CICHY, K.E., LEFKOWITZ, E.S., DAVIS, E.M. and FINGERMAN, K.L., (2013). "You are such a disappointment!": Negative emotions and parents' perceptions of adult children's lack of success. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, **68**, pp.893-901.
- COGAN, M.F., (2010). Exploring academic outcomes of homeschooled students. *Journal of College Admission*, **208**, pp.18-25.

COHEN, S., (1988). Perceived stress in a probability sample of the United States. In: S. SPACAPAN and S. OSKAMP, eds., *The social psychology of health*. California: Sage Publications.

COLLOM, E., (2005). The ins and outs of homeschooling: The determinants of parental motivations and student achievement. *Education and urban society*, **37**, pp.307-335.

COPELAND, D. and HARBAUGH, B.L., (2005). Differences in parenting stress between married and single first time mothers at six to eight weeks after birth. *Issues in Comprehensive Pediatric Nursing*, **28**, pp.139-152.

DEATER-DECKARD, K., (2008). *Parenting Stress*. New Haven, CT: Yale University Press.

DI FABIO, A. and PALAZZESCHI, L., (2015). Hedonic and eudaimonic well-being: the role of resilience beyond fluid intelligence and personality traits. *Frontiers in Psychology*, **6**, 1367.

DUINEVELD, J.J., PARKER, P.D., RYAN, R.M., CIARROCHI, J. and SALMELA-ARO, K., (2017). The link between perceived maternal and paternal autonomy support and adolescent well-being across three major educational transitions. *Dev Psychol*, **53**, pp.1978-1994.

DUVALL, S., (2005). The effectiveness of homeschooling students with special needs. *Home schooling in full view: A reader*, pp.151-166.

FIELDS-SMITH, C. and WILLIAMS, M., (2009). Motivations, sacrifices, and challenges: Black parents' decisions to home school. *The Urban Review*, **41**, pp.369-389.

FRANKY, A.P. and CHIAPPE, A., (2018). ICT and home-educating families: a qualitative multiple case study. *Ensaio: Avaliação e Políticas Públicas em Educação*, **26**, pp.1324-1346.

GANN, C. and CARPENTER, D., (2018). STEM teaching and learning strategies of high school parents with homeschool students. *Education and urban society*, **50**, pp.461-482.

GARAS-YORK, K., (2010). Overlapping student environments: An examination of the homeschool connection and its impact on achievement. *Education and Urban Society*, **42**, pp.430-449.

GARBE, A., OGURLU, U., LOGAN, N. and COOK, P., (2020). COVID-19 and remote learning: experiences of parents with children during the pandemic. *American Journal of Qualitative Research*, **4**, pp.45-65.

GREEN, C.L. and HOOVER-DEMPSEY, K.V., (2007). Why do parents homeschool? A systematic examination of parental involvement. *Education and Urban Society*, **39**, pp.264-285.

GREENWAY, C.W. and 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**, pp.510-535.

GREWENIG, E., LERGETPORER, P., WERNER, K., WOESSMANN, L. and ZIEROW, L., (2020). COVID-19 and Educational Inequality: How School Closures Affect Low-and High-Achieving Students.

HANNA, L.G., (2012). Homeschooling education: Longitudinal study of methods, materials, and curricula. *Education and Urban Society*, **44**, pp.609-631.

HARDING, T.J.A., (2011). *A study of parents' conceptions of their roles as home educators of their children*. Queensland University of Technology.

HELGESON, V.S., BECKER, D., ESCOBAR, O. and SIMINERIO, L., (2012). Families with children with diabetes: Implications of parent stress for parent and child health. *Journal of pediatric psychology*, **37**, pp.467-478.

HUANG, K-Y., BORNHEIMER, L.A., DANKYI, E. and AIKINS, A.D-G., (2018). Parental wellbeing, parenting and child development in Ghanaian families with young children. *Child Psychiatry and Human Development*, **49**, pp.833-841.

ICE, C.L. and HOOVER-DEMPSEY, K.V., (2011). Linking parental motivations for involvement and student proximal achievement outcomes in homeschooling and public schooling settings. *Education and Urban Society*, **43**, pp.339-369.

IIVARI, N., SHARMA, S. and VENTÄ-OLKKONEN, L., (2020). Digital transformation of everyday life—How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care? *International Journal of Information Management*, **55**, 102183.

JOLLY, J.L., MATTHEWS, M.S. and NESTER, J., (2013). *Homeschooling the gifted: A parent's perspective*. *Gifted Child Quarterly*, **57**(2), pp.121-134.

KAMARCK, T.W., ANNUNZIATO, B. and AMATEAU, L.M., (1995). Affiliation moderates the effects of social threat on stress-related cardiovascular responses: Boundary conditions for a laboratory model of social support. *Psychosomatic medicine*, **57**, pp.183-194.

KARABANOVA, O.A. and BUKHALENKOVA, D.A., (2016). Perception of success in adolescents. *Procedia-social and behavioral sciences*, **233**, pp.13-17.

KÄRKKÄINEN, R., RÄTY, H. and KASANEN, K., (2009). Parents' perceptions of their child's resilience and competencies. *European Journal of Psychology of Education*, **24**, pp.405-419.

KENDALL, S. and ATKINSON, M., (2006). *Some perspectives on home education*, National Foundation for Educational Research.

KING, G., KING, S., ROSENBAUM, P. and GOFFIN, R., (1999). Family-centered caregiving and well-being of parents of children with disabilities: Linking process with outcome. *Journal of pediatric psychology*, **24**, pp.41-53.

KING, P.E., WAGENER, L. and BENSON, P.L., (2006). *The handbook of spiritual development in childhood and adolescence*. California: Sage Publications.

KOH, D., (2020). COVID-19 lockdowns throughout the world. *Occupational Medicine*, **70**, pp.322-322.

KUNZMAN, R. and GAITHER, M., (2013). Homeschooling: A comprehensive survey of the research. *Other Education*, **2**, pp.4-59.

LEE, E.-H. 2012. Review of the psychometric evidence of the perceived stress scale. *Asian nursing research*, **6**, 121-127.

LEE, S.J., WARD, K.P., CHANG, O.D. and DOWNING, K.M., (2021). Parenting activities and the transition to home-based education during the COVID-19 pandemic. *Children and Youth Services Review*, **122**, 105585.

LINES, P., (1991). Home instruction: The size and growth of the movement. *Home schooling: Political, historical, and pedagogical perspectives*, pp.9-41.

MARCHANT, G.J. and MACDONALD, S.C., (1994). Home Schooling Parents: An Analysis of Choice. *People and Education*, **2**, pp.65-82.

MARTIN-CHANG, S., GOULD, O.N. and MEUSE, R.E., (2011). The impact of schooling on academic achievement: Evidence from homeschooled and traditionally schooled students. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, **43**, p.195.

MAYO CLINIC, (2020). Healthy Lifestyle: Stress Management. Stress, depression and the holidays: Tips for coping. Scottsdale, AZ: Mayo Foundation for Medical Education and Research. Available: <https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress/art-20047544>

MAZAMA, A. and LUNDY, G., (2015). African American homeschooling and the quest for a quality education. *Education and Urban Society*, **47**, pp.160-181.

MILES, D.K., STEDMAN, M. and HEALD, A.H., (2021). "Stay at Home, Protect the National Health Service, Save Lives": a cost benefit analysis of the lockdown in the United Kingdom. *International Journal of Clinical Practice*, **75**, e13674.

MISIRLI, O. and ERGULEC, F., (2021). Emergency remote teaching during the COVID-19 pandemic: Parents experiences and perspectives. *Education and Information Technologies*, pp.1-20.

MORELLI, M., CATTELINO, E., BAIOCO, R., TRUMELLO, C., BABORE, A., CANDELORI, C. and 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.

MOSCARDINO, U., DICATALDO, R., ROCH, M., CARBONE, M. and MAMMARELLA, I.C., (2021). Parental stress during COVID-19: A brief report on the role of distance education and family resources in an Italian sample. *Current Psychology*.

MYERS, J.A., (2017). *Parental Stress With Homeschooling K-6 th Grade Children in a South Florida District*. Nova Southeastern University.

NEECE, C.L., GREEN, S.A. and BAKER, B.L., (2012). Parenting stress and child behavior problems: A transactional relationship across time. *American journal on intellectual and developmental disabilities*, 117, pp.48-66.

NELSON, J., (2014). *Home Education: Exploring the views of parents, children and young people*. University of Birmingham.

NOEL, A., STARK, P. and REDFORD, J., (2013). Parent and Family Involvement in Education, from the National Household Education Surveys Program of 2012. First Look. NCES 2013-028. *National Center for education statistics*.

OYEDOTUN, T.D., (2020). Sudden change of pedagogy in education driven by COVID-19: Perspectives and evaluation from a developing country. *Research in Globalization*, 2, 100029.

OZBAY, F., JOHNSON, D.C., DIMOULAS, E., MORGAN III, C., CHARNEY, D. and SOUTHWICK, S., (2007). Social support and resilience to stress: from neurobiology to clinical practice. *Psychiatry (Edgmont)*, 4, p.35.

PARSONS, S. and LEWIS, A., (2010). The home-education of children with special needs or disabilities in the UK: views of parents from an online survey. *International Journal of Inclusive Education*, 14, pp.67-86.

RAJA, C., (2012). A PERSONAL JOURNEY INTO HOME LEARNING. *Journal of Unschooling and Alternative Learning*, 6.

RATHMELL, J., (2012). A heuristic inquiry into the stress that home educators experience. *Doctoral Dissertations and Projects*. 531.

REIMERS, F.M. and SCHLEICHER, A., (2020). A framework to guide an education response to the COVID-19 Pandemic of 2020. *OECD*. Retrieved April, 14, 2020-04.

- ROBINSON, C.C., MANDLECO, B., OLSEN, S.F. and HART, C.H., (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. *Psychological reports*, **77**, pp.819-830.
- ROTHERMEL, P., (2003). Can we classify motives for home education? *Evaluation and Research in education*, **17**, pp.74-89.
- SHENG, X., (2015). Confucian work and homeschooling: A case study of homeschooling in Shanghai. *Education and Urban Society*, **47**, pp.344-360.
- SHEPHERD, D., (2010). Mommy is my teacher: Qualitative case studies of three families' homeschooling experience.
- SPINELLI, M., LIONETTI, F., PASTORE, M. and FASOLO, M., (2020). Parents' Stress and Children's Psychological Problems in Families Facing the COVID-19 Outbreak in Italy. *Frontiers in Psychology*, **11**.
- UCHINO, B.N., CACIOPPO, J.T. and KIECOLT-GLASER, J.K., (1996). The relationship between social support and physiological processes: a review with emphasis on underlying mechanisms and implications for health. *Psychological bulletin*, **119**, p.488.
- VAN GALEN, J., (1991). Ideologues and pedagogues: Parents who teach their children at home. In: J. VAN GALEN and MA PITMAN, eds., *Home schooling: Political, historical, and pedagogical perspectives*. Norwood. NJ: Ablex Publishing. pp. 63-76.
- VAN GALEN, J.A., (1987). Explaining home education: Parents' accounts of their decisions to teach their own children. *The Urban Review*, **19**, pp.161-177.
- WEAVER, J.L., and SWANK, J.M., (2021). Parents' lived experiences with the COVID-19 pandemic. *The Family Journal*, **29**(2), pp.136-142.
- WEBSTER-STRATTON, C., (1990). Stress: A potential disruptor of parent perceptions and family interactions. *Journal of Clinical Child Psychology*, **19**, pp.302-312.
- WILLIAMS, A.D., (2018). *Parents' Perceptions on Negative Experiences in Institutional Schools and Decision to Homeschool in Northwest Arkansas*. Grand Canyon University.
- WINDISH, L., (2017). Homeschooling parent stress levels and its association with the mental and physical health of their children. *The international journal of health, wellness and society*, **7**, pp.11-21.