Investigating the impact of the pandemic on teacher's and parent's health and wellbeing in SEN

Research

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Audience   Welsh Government policymakers; practitioners responsible for supporting children with Additional Learning Needs; local authorities; regional consortia; , national and local bodies in Wales with an interest in promoting and supporting children and young people's emotional/mental health.

Overview   This report analyses the impact of the pandemic on the health and wellbeing of children with SEN and their families, and staff in special schools in Wales. It also suggests ways to recover from COVID-19 and limit the impact on individual and group wellbeing.

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Action required   The findings and recommendations have been fed back to the Welsh Government for their consideration.

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This document is also available in Welsh.

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1. Executive summary

- **Review**: The research literature provided an initial understanding of (1) the impact of the pandemic on the health and wellbeing of children, teaching staff and parents/family carers in SEN contexts and (2) what interventions already exist to help those populations manage psychological distress.

- **Survey**: Information about the psychological impact of the pandemic on teaching staff and family carers in SEN contexts across Wales was gathered through online-surveys. 90% of respondents indicated that the Covid-19 pandemic has had a negative impact on their psychological health and wellbeing. 66% of respondents reported a decrease in their overall enjoyment of life and 45% of respondents said that they felt more stressed and anxious because of the pandemic.

- **Focus group**: From analysis of the data, five core themes emerged from the discussions with parents/family carers during the focus group: 1. the exacerbation of existing difficulties, 2. the creation of new problems arising from Covid-19, 3. psychological distress, 4. positive coping mechanisms, and 5. ideas for future adverse events. From the staff interviews, four core themes were identified; 1. psychological adjustment / altered states, 2. additional burdens, 3. maintenance and positive coping, and 4. ideas for the future.

- **Recommendations**: to further develop and co-produce an accessible e-learning package to help families and schools develop a shared understanding of the impact of stress in their lives and inform them of the evidence-based options available to them should they wish to develop school-based initiatives. A prototype e-learning package has been developed by the first author and is ready to trial with parents.

2. Introduction

The impact of the COVID-19 outbreaks and the associated lockdown measures to reduce the contagion has been felt across the globe (Agarwal, 2021). Since the pandemic, researchers have turned their attention towards investigating the range of consequences that school closures had on social development, educational performance, and the health and wellbeing of children across Wales (Marchant et al., 2021). Over 1.5 billion children from 188 countries were impacted by Covid-19 (UNESCO, 2020). Parents and caregivers attempted to work remotely or were unable to work while caring for children, with little clarity on how long the situation would last. Given this context, it is no surprise that many struggled with their mental health during this period (O'Connor et al., 2021).

However, some struggled more than others. Preliminary findings on the impact of COVID-19 on the mental wellbeing of children with an intellectual disability (ID) / autism suggests a significantly worse outcome compared to typically developing children, with sedentary, anxious, and aggressive behaviour all increasing (Theis et al., 2021). The disruption brought increased challenges for learners with additional learning needs (ALN). Many were used to receiving extra support in the classroom, and this was often not available or was not possible in the same way when learners worked from home. Providers continued to look for innovative ways to help these learners continue with their learning, although learners with ALN often found it difficult to engage in online, remote learning. Families caring for children with ALN also experienced a greater negative impact, given their reliance on carefully established routines and relationships, as well as professional and informal support, specialist equipment and professional support that is only available in schools (Toseeb et al., 2020). Additionally, as a result of the pandemic, teachers of ALN children have reported higher levels of stress and burnout than teachers of typically developing children (Ueda et al., 2020), due to restrictions, changes in routines, risk of placement breakdown and worries about health vulnerabilities.

This study was part of the Collaborative Evidence Network (CEN) research which sought to investigate the impact of the coronavirus (COVID-19) pandemic on the education system in Wales. This research, via survey and focus group interviews, investigates the impact of COVID on the wellbeing and mental health of school staff in special school settings and family carers of the children with ALN. It further aims to discover whether there is a need for an evidence-based intervention, based on the principles of psychological flexibility (Hayes et al., 2013). These are ideas that have been developed in research and therapy to explain the shift from positive mental health to the experience of psychological distress.

The report will introduce the topic through a literature review. To help understand the impact of COVID on parents and teachers of children with ALN, data was collected via a survey and focus groups. The report will attempt to show how psychological flexibility maybe a helpful way to understand the data and offer some innovative ideas for developing training and support. The final chapter suggests how this training and support could be offered via a special school acting as a community hub.

3. Review of the literature

3.1 The Incidence of Intellectual Disability

Intellectual disability (ID) describes children and adults who have significant difficulties in their ability to learn at an expected level and function independently in daily life. It is characterised by impairments in age related intellectual abilities as well as in adaptive functioning across conceptual, social, and practical domains that occur during the developmental period (American Psychiatric Association, 2013). The education of these learners has traditionally been met within a Special Educational Needs (SEN) context. Recent policy in Wales now defines the needs of such learners under the new Additional Learning Needs (ALN) strategy, as set out in the Additional Learning Needs and Education Tribunal (Wales) Act (2018). This unified legislative framework emphasises a more person-centred approach to assessing, identifying, and monitoring learners with ALN across the broader age range of 0–25 years (Welsh Government, 2019).

It is estimated that 2.5% of children in Wales have an intellectual disability (ID) and 1% are autistic. Although this may be a relatively small number, these children and young people have an increased risk of (1) experiencing mental health problems (2) developing behaviours that others may find challenging (Hastings et al., 2013; NICE, 2015) and (3) experiencing stressful interactions with caregivers (Crnic et al., 2017).

3.2 Challenging Behaviour and its Impact

For children with ID, the risk of developing behaviours that challenge others is three to four times that of typically developing children (Emerson & Hatton, 2007; Emerson et al., 2010). In fact, it has been calculated that approximately 10–20% of adults and children with ID display behaviours that challenge (Bowring et al., 2017; Lundqvist, 2013). A recent study on the prevalence of challenging behaviours (CB) in special schools in the UK (Nicholls et al., 2020) found that 53% of pupils displayed at least one CB; 36% presented with self-injurious behaviour, 30% displayed aggressive/destructive behaviour and 26% engaged in stereotyped behaviour. High prevalence of CB is related to restrictive and aversive responses that result in exclusion in special education settings (DoE, 2018; DoH, 2014), and a growing body of research indicates that the presence of behavioural problems in children with ID may be more predictive of poorer adaptive outcomes than the presence of the core difficulties in learning (Baker et al., 2003; Woodman et al., 2015). Children and young people with an ID are therefore an especially vulnerable subset of the ALN population but will be referred to as children with ALN within the rest of this report to help link any recommendations with new Welsh Government policy.

Much of the literature on how CB leads to stress in employed carers has been undertaken in adult residential services (Hatton et al., 1999; Hastings, 2002; Robertson et al., 2005; Rose and Rose, 2005); this research suggests that regular exposure to CB may result in stress, burnout and mental health problems and high staff turnover. For example, Flynn et al. (2018) found that the degree of exposure to CB impacted staff wellbeing, with higher levels being associated with greater psychological distress. The limited studies in special education schools suggest that CB can have a negative impact on teachers, support staff and other pupils (Hämeenaho, 2016; Brittle, 2020). Teachers are reported to express significant concerns about CB, with approximately one fifth experiencing anger and exhaustion when dealing with incidents (Male, 2003). Special educators who have had prolonged exposure to CB report increased burnout, and this has been associated with increased staff sickness, which in turn reduces the stability of the learning environment

(Hastings and Brown, 2002). There is evidence that working in special education settings may bring additional issues to those already mentioned. For example, it has been argued that special educational settings can lack role clarity and administrative support (Bettini et al., 2017) and that feelings of isolation and loneliness and minimal collaboration with colleagues are likely to elevate stress levels even more (Albrecht et al., 2009; Cancio and Conderman, 2008; Kaff, 2004; Katsiyannis et al., 2003; Prather-Jones, 2011; Schlichte et al., 2005).

Whilst the impact of CB on the stress levels of those in ALN settings is well documented, it is important to explore the distinction between stress and burnout. Stress is used to describe the immediate effect of specific stressors, for example, a challenging student, (Cancio et al., 2018). The cognitive reappraisal model has been dominant in understanding how this happens (Lazarus and Folkman, 1984). This describes a two-stage process. The first is an appraisal of the stressful demand. The second, which happens immediately, is a review of personal resources available to meet that demand. Lazarus and Folkman's (1984) model helps to explain how individuals might respond differently to the same stressors occurring in the same environment. Certain environments may make stress more likely, but each individual has a different threshold in how they are able to cope.

Over time, repeated exposure to stress can lead to burnout (Wong et al., 2017). This is especially well-documented in the caring services and has been reported in the special education literature. For example, literature has suggested those in special educational settings are likely to report burnout in the following ways:

- Decreased feelings of accomplishment. For example, not meeting the needs of pupils, feeling less successful in dealing with crisis interventions (Embich, 2001; Pullis, 1992; Zabel and Zabel, 1982).

- Difficulty with personal or professional relationships. For example, teachers choosing to isolate themselves due to work overload, not collaborating with colleagues, not socialising with colleagues in or outside work (Maslach and Jackson, 1984; Pullis, 1992; Sweeney et al., 1993; Wrobel, 1993).

- Neglect of other responsibilities. For example, not finding time to complete paperwork, their structure and consistency diminishes (George et al., 1995; Zabel and Zabel, 1982).

- Emotional exhaustion. For example, being extremely tired after work, not participating in hobbies, not socialising with friends after work. When teachers do not find sufficient coping resources to deal with their stress, they may experience a loss of enthusiasm and motivation and may no longer find meaning in their work (Matheny et al., 2000).

3.3 Interventions to manage psychological distress

Given the psychological challenges of living and working with children with ALN prior to the pandemic, many interventions have been developed over the years (Crnic et al., 2017; Guralnick, 2017; 2011). A growing evidence-base has emerged for the effectiveness of interventions that draw upon mindfulness processes and acceptance principles (often referred to as mindfulness-based interventions or MBI's), on psychological distress and wellbeing in staff in services for adults with ID. Although a recent study found a large-scale

school wide, mindfulness-based intervention to be ineffective in reducing pupils stress (Montero-Marin et al., 2022), the study demonstrated this was largely due to a failure of the project to help pupils to practice mindfulness—those that engaged in regular practice did benefit. Many of these interventions aim to increase a person's ability to be more 'psychologically flexible'. The concept of psychological flexibility originated in the field of behavioural psychology and refers to a persons' ability to manage and cope with difficult and stressful situations and has been associated with positive wellbeing (Burton and Bonanno, 2016). It has been defined as "the ability to contact the present moment more fully as a conscious human being and to change, or persist in, behaviour when doing so serves valued ends" (Hayes et al., 2006, p.7). Several studies have identified the role of psychological flexibility in reducing burnout (Hayes et al., 2004; Masuda et al, 2007; Lloyd et al., 2013), as well as mediating the relationship between psychological distress (Kurz et al. 2014) and mood disorders (Kashdan et al., 2006). Similarly, several studies have utilised Acceptance and Commitment Therapy (ACT) to target staff psychological flexibility in adult care settings, reporting reductions in psychological distress and burnout (Noone and Hastings, 2009, 2010; Bethay et al., 2013) and reduced stress (Smith and Gore, 2012).

Mindfulness-based interventions have been successful in helping teachers be more effective at shaping the behaviour of their pre-school learners (Singh et al., 2013). Work has also been conducted showing that ACT can improve the wellbeing of caregivers of children with ALD (Lunsky et al., 2018; Magnacca et al., 2021). Yet to date, little work has been undertaken to examine mindfulness-based interventions or the psychological flexibility model with school staff wellbeing or family carers of children with ALN. Additionally, there have been no empirical studies of this approach conducted with these populations post-pandemic.

3.4 Conclusion

Regular exposure to children with ALN who present with behaviours that challenge can result in higher levels of stress, burnout and staff turnover. There would appear to be a direct link between the degree of exposure to student challenging behaviour and its impact on wellbeing with greater exposure being associated with greater psychological distress. The pandemic is likely to have exacerbated this distress and therefore signals, with greater urgency, the need for evidence-based interventions.

This research investigates, via survey and focus group interviews, the impact of COVID on the wellbeing and mental health of school staff in special school settings and family carers of the children with ALN. It further aims to discover whether there is a need for intervention, and if so, whether a psychological flexibility intervention would be appropriate.

Research questions:

1. How has the pandemic impacted on the wellbeing of family carers and teaching staff of children attending special schools in Wales?
2. Can psychological flexibility help to understand the well-being of family carers and teaching staff of children attending special schools in Wales?
3. How feasible would it be to deliver a school-based intervention that would promote better wellbeing in family carers and school staff using evidence-based approaches?

4. Methods

4.1 Online Survey

Measures

To answer the first research question, an online survey was devised to measure the impact of the pandemic on the wellbeing of family carers and members of staff in SEN schools. The survey was made available online from 21st March 2022 and remained open until 30th June 2022. The first section of the survey served to capture participant demographics (see Table 5). Section one of the survey also included a three option Likert scale on the impact of the pandemic on health and wellbeing (a lot, somewhat and not at all) and two open-ended questions about the psychological impact and what had been most helpful to promote coping.

The second section of the survey combined three self-report questionnaires on psychological health, the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS), the Core-10 and the Acceptance and Action Questionnaire (AAQ-II). See Table 1 below for a summary of the survey structure.

Table 1. **Details of the survey structure with number of questions in each section.**

Section	Name of the section / Questionnaire measure	Number of questions
1	Participant demographics and response to pandemic	10
2	The Warwick-Edinburgh Mental Wellbeing Scale	14
	The Core-10	10
	The Acceptance and Action Questionnaire (AAQ-II)	7
	Total number of questions	**41**

Impact on psychological health and wellbeing: Open-ended question outcomes
The two additional open-ended questions added to the survey were:

1. In your own words, tell us how has the COVID-19 pandemic impacted on your psychological health and wellbeing?
2. In your own words, tell us what have you found to be helpful in supporting your psychological health and wellbeing during the pandemic?

In order to undertake a thematic analysis (Braun and Clarke, 2006) the qualitative data was transferred into an Excel spread sheet. The first author read through all the responses and highlighted significant points and identified emerging patterns of responses. A separate column, adjacent to participants' responses was added and entitled, 'Themes'. In this column, responses were grouped under broad themes of how the COVID-19 pandemic was reported to have impacted on participants' psychological health and wellbeing.

The Warwick-Edinburgh Mental Wellbeing Scale

The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) (Tennant et al., 2007) is comprised only of positively worded items relating to different aspects of positive mental health. Although the WEMWBS was not developed to measure mental health and should not be used for screening purposes (Taggart et al., 2015), the scale was used to provide a picture of mental wellbeing. The measure began as a 7-item scale but was expanded by the original authors to14 items to provide a better balance of feeling and functioning items. The overall score for the WEMWBS is calculated by totalling the scores for each item, with equal weights. The following scores are used as a guide to indicate the different levels of wellbeing: low = (14 – 44), medium (45 – 57) and high = (58–70). Higher WEMWBS scores indicate a higher level of mental wellbeing.

The Core-10

The Core-10 (Barkham et al., 2013) is a shortened version of the 34 item CORE-OM (Evans et al., 2000). The Core-10 is a well-established measure for assessing low level mental health problems, for example, anxiety, depression, trauma, physical problems, functioning and risk to self. Participants are asked to rank 10 statements about how they have been within the last week. For example, I have felt tense, anxious or nervous. Participants rank 10 symptoms between 0 – 4, total scores range from 0 to 40. Higher scores on this measure indicate higher levels of general psychological distress, a total score of 10 or below is regarded to be within the non-clinical range. Scores between 20 – 24 indicate moderate-to-severe psychological distress. A score of 25 or above indicates that the participant is experiencing severe psychological distress.

The Acceptance and Action Questionnaire (AAQ-II)

The Acceptance and Action Questionnaire (AAQ-II) (Bond et al., 2011) is a well-used measure of psychological flexibility / inflexibility (Hayes et al., 2013) and is a revision of the 10-item version of its predecessor. The present study examined the item-response characteristics of the 7-item version of the AAQ-II. All items are negatively framed, for example, "My painful experiences and memories make it difficult for me to live a life that I would value". Items are rated on a 7-point scale ranging from 0 = never true to 6 = always true. Total scores range between 0 – 42, with higher scores indicating lower levels of psychological flexibility. Preliminary evidence suggests that the AAQ-II has adequate reliability and validity in the measure of psychological flexibility / inflexibility both clinical and non-clinical samples (Bond et al. 2011; Flefferus et al. 2012).

To test whether the three questionnaires (the WEMWBS, Core-10 and AAQ-II) have good internal consistency, which means that each of the questions within each questionnaire can be shown to measure what it is intended to measure, a Cronbach's alpha was conducted. All scales scored good to excellent (see Table 2). Cronbach's alpha values of 0.7 or higher indicate acceptable internal consistency.

Table 2. Internal consistency for the WEMWBS, The Core-10 and the AAQ-II as measured using Cronbach's alpha.

Scale	Cronbach's Alpha	*N* of items
WEMWBS	.933	14
Core-10	.852	10
AAQ-II	.911	7

4.2 Focus Groups

Two separate focus groups took place in a large SEN school in north Wales. One with a group of staff and one with a group of parents. Each focus group was audio recorded and transcribed. The transcriptions were subjected to a thematic analysis (Braun and Clarke, 2006). The original plan had been to repeat the process with other schools in other parts of Wales, but it had to be abandoned after problems with recruitment. This of course places some restrictions in generalising findings.

Ethics
Ethical approval was submitted as part of a larger ethics application that combined four other research projects within the Collaborative Evidence Network (CEN). The five projects that were included were all investigating the impact of the coronavirus (COVID-19) pandemic on the education system in Wales. Informed consent was given by all participants for the study. Participants were informed that the final transcripts would not include any identifying information, all names would be given pseudonyms and verbatim quotes from the interview sessions would be anonymised.

Participants were notified on the information sheet, and just prior to the interview commencing, that they were able to withdraw from the study at any time. Participants were also informed that they could request for their data to be withdrawn from the study up until analysis has been finalised.

4.3 Procedure

Survey procedure
Study recruitment involved two separate stages. Given the small number of SEN schools in Wales (N=40), all SEN schools were initially invited to take part in the study. A bilingual email invitation letter was sent to school headteachers via regional educational consortiums in Wales. Included in the email was an invitation letter explaining details of the survey and focus group for SEN teachers and family carers.

The target population were: (1) primary, middle, secondary and special educational needs (SEN) schools maintained by the local authority in Wales. The inclusion criteria for members of school staff were: (2) staff at the selected primary, middle, secondary and SEN schools. The inclusion criteria for family carers were: (3) parents and primary family carers of children with ALN who attended the selected SEN schools. There were no age or gender exclusions.

Once the headteacher had accepted the invitation, stage two involved the headteacher forwarding the information to teachers and family carers via schools' communication systems. Researchers liaised with the headteachers and an appointed member of staff, to forward electronic survey links to the relevant people in the school, through the school's network. Paper copies of the survey with prepaid (stamped) envelopes were also made available for those wishing to complete a paper-based version of the survey. Out of the 40 schools approached, 20 responded to the invite.

Focus group procedure
An invitation to take part in the focus groups was sent to the headteachers of two SEN schools. One in North Wales responded and agreed to take part. The headteacher

identified a member of staff to work with the research team to help recruit parents of the children who attended the SEN school to participate in the study.

Two focus groups were held with a total of 12 participants, one with a group of four parents and one with a group of eight staff. Parents and school staff were asked questions about their health and wellbeing related to the impact of COVID. The interview schedule for parent and school staff can be found in Appendix A and Appendix B respectively.

Parent-Carer focus group
Participants: Four parents of children with ALN who attend an SEN school accepted the invitation to take part in the focus group. All 4 participants were female and had at least one child who attended the SEN school. Their children had a variety of different diagnosis and levels of need. This information is summarised in Table 3 below. Participant names and the names of their children and spouses have been anonymised.

Focus groups were conducted in person on school premises. Details of the study aims, and procedures were outlined in the information sheets provided. In addition, the principal investigator explained verbally how the focus group would be conducted prior to the focus group commencing.

Table 3. Background information on the child and family characteristics for each participant

Participant (P) Number	Participant information
P1	The participant has two daughters. Lora, (13 years) has ID* and attends an SEN* setting. No challenging behaviour reported. Lora's older sister Katie (15 years) attends a mainstream setting but was recently diagnosed with ADHD* and ODD*. Katie presents with CB*.
P2	They have two sons, Ben (13 years) has a rare genetic disorder and attends an SEN setting. No CB reported. Ben has an older brother, Luke, who attends mainstream setting. Luke struggled with anxiety around passing on the virus and harming Ben. Ben did contract Covid-19 and experienced complications. Luke continues to receive counselling for this.
P3	The participant has three daughters. Flo (13 years) has a genetic disorder, no CB and attends a SEN setting. Flo has two older (TD*) sisters. During lockdown, Flo became anxious about the virus getting into the house and engaged in a number of obsessive behaviours to make the home safe (checking and closing windows and curtains).
P4	They have twin daughters, Hollie and Marie (14 years). Both have a genetic disorder and attend a SEN setting. Hollie also recently diagnosed with autism and arthritis. CB reported. The sisters no longer get on following lockdown.

* ADHD = Attentional Deficit Hyperactivity Disorder, CB = Challenging Behaviour, ID = Intellectual Disability,

ODD = Oppositional Defiant Disorder, SEN = Special Educational Needs, TD = Typically Developing

Both the written and oral information emphasised that, in reporting the data, answers will be treated anonymously and will not name their school. Participants were then given the opportunity to ask questions and consider their participation in the focus group.

The headteacher and participating members of the school team were fully aware of the aims and procedures of the focus group. A member of the school staff team were present for the duration of the interviews to overlook the interview being conducted.

Focus groups were audio recorded and all data that was gathered is stored securely on a password protected university server that only the research teams will have access to. In line with Bangor University's Research Data Management policy, data will be retained for a minimum of 5 years after publication.

Staff focus group
Eight members of staff from an SEN school in North Wales accepted the invitation to take part in the focus group. The group included five teachers, and three teaching assistants. Seven of the eight participants were female. The same procedures as documented for the parents above were followed for the staff focus groups.

Qualitative data analysis
The parent focus group lasted approximately 90 minutes and the teacher focus group lasted just over one hour. Both sessions were audio-recorded using a dictaphone and recordings were sent away to be transcribed. Analysis of the data was undertaken in a systematic fashion. Analysis of the transcripts from the parent group was completed before starting analysis of the staff group. Researchers followed the six stages of thematic content analysis outlined by Braun and Clarke (2006). The first step in the process involved reading through transcripts at least twice before matching and attaching the supplementary notes to the corresponding prose. Once the researcher had familiarised themselves with the data, initial codes were identified. Codes have been described by Boyatzis (1998) as "the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon" (Boyatzis, 1998, p63). The generation of initial codes is the second step in Braun and Clarke's process. At this point, researchers were able to cross check codes using a process known as intercoder reliability (ICR). ICR strengthens the trustworthiness of the analysis process (Kurasaki, 2000) by examining the categories and decision processes made by the first researcher. ICR was calculated on all of the codes, dividing the number of agreements by the total number of agreements plus disagreements. The total score was calculated to be 88.1%. Although there is no universally agreed threshold for an ICR score, Miles and Huberman (1994) suggests a standard of 80% agreement on 95% of codes. The third step involved the researcher organising the codes into separate thematic categories. A theme is defined as a 'patterned response of meaning' with data items and across the entire data set. Braun and Clarke (2006) state that the 'keyness' of a theme is not necessarily dependent on quantifiable measures – but rather whether it captures something important in relation to the overall research question'. The fourth and fifth steps involved reviewing, labelling, and defining the final set of sub-themes. The sixth and final stage in the thematic content analysis involved producing the final thematic report which is included in the results section below and a 'thematic map' can be found in Appendix C and D which illustrates the theme categories for both the staff and parent-carer focus group.

5. Findings

5.1 Survey outcomes

Ninety-four respondents, made up of 59 teaching staff and 31 parents and family carers across Wales completed the survey; 93 participants completed the English version of the survey, and one respondent completed the Welsh version. Two respondents completed only the first section and were therefore discounted from the final data analysis, leaving 92 eligible responses. Tables 4 and 5 present details for the general regional information and respondent demographic information respectively.

Participants provided information regarding the schools' county (either where they work or the school where their children attend), their age, and whether they are based in the classroom or not.

Table 4. **Regional split between sample participants across Wales**

Region	*N*	%
North Wales	71	76
Mid Wales	3	3
South Wales	19	21
Total	**92**	

As can be seen from Table 4, there was a very strong bias in the data with participants from north Wales. This may reflect the geographical base of the lead researcher and the opportunities to visit two schools in the north to discuss the project and generate interest in the research.

Table 5. **Participant demographics**

Participant demographics	N	%
County		
Anglesey	1	1.1
Conwy	50	54.3
Denbighshire	8	8.7
Flintshire	10	10.9
Gwynedd	1	1.1
Glamorgan	2	2.2
Powys	3	3.3
Swansea	17	18.5
Total	**92**	
Age group		
18–24	4	4.4
25–34	18	19.8
35–44	33	36.3
45–54	21	23.1
55–64	15	16.5
School based	59	65.5
Family carer	31	34.4

Impact of the COVID-19 pandemic
Overall, 91% of respondents indicated that the Covid-19 pandemic had a negative impact on their psychological health and wellbeing (see Table 6).

Table 6. The impact of the COVID-19 pandemic on the psychological health and wellbeing of respondents.

Response category	N	%
A lot	19	20.9
Somewhat	63	69.2
Not at all	9	9.9

Impact on psychological health and wellbeing: Open-ended question outcomes

In the first open-ended question in section one of the survey, participants were asked how the COVID-19 pandemic had impacted on their psychological health and wellbeing. In total, 74 of the participants completed this question. Responses were coded using the same thematic content analysis procedure as documented in the focus group procedure section above. This elicited four separate themes: one related to stress and worry, one to a disturbed mood and mild depression, one about missing family and friends and one around specific worries around finances. A fifth theme, called 'other', captured several miscellaneous responses that did not fit into either of the earlier four. Table 7 shows the frequency and percentages of each of the five themes for which the codes were categorised.

Table 7. **Themes identified from the analysis of open-ended survey question that asked about how the COVID-19 pandemic has impacted psychological health and wellbeing.**

Theme	N	%
Stress/anxiety, fear & worry	33	45.2
Low mood	22	30.1
Missing family and friends	7	9.6
Financial worries	3	4.1
Other	7	9.6

It is important to note that several participants reported a number of different responses to this open-ended question, and these are recorded in the different themes.

To understand whether participants had used personal coping skills during the pandemic a second open-ended question asked what they had found to be helpful in supporting their psychological health and wellbeing. 73 of the participants completed this question. These answers were again analysed using thematic analysis and four distinct themes emerged. Table 8 shows the number of times these themes occurred.

Table 8. Themes identified from the analysis of open-ended survey question about what participants found to be the most helpful in supporting psychological health and wellbeing.

Theme	*N*	%
Connection/support	34	47
Exercise/outside	25	33
Self-care	12	15
Feeling safe	5	7

Below are some examples taken from direct quotes for each of the categories in Table 8.

47% (*n* = 34) of respondents reported answers that were categorised under the theme 'connection and support:

> "*Speaking to colleagues going through similar working life struggles, knowing I wasn't alone. Staying in touch with friends.*"
> "*Being able to connect with family and friends via facetime etc.*"
> "*Other parents and fantastic support from my youngest's SEN school, throughout the whole time. Phoning, video chats etc weekly as well as whenever required.*"

33% (*n* = 25) of respondents reported answers that were categorised under the theme of 'Exercise and Outdoors':

> "*Being able to access outdoor spaces*"
> "*Getting out of the house and walking*"
> "*Walking my dog*"
> "*Gardening*"
> "*Riding my horses*"

16% of respondents (n = 12) reported answers that were categorised under the theme of having Self-Care routines:

> "*Using breathing and meditation exercises*"
> "*Listening to music*"
> "*Painting*"
> "*Baking*"
> "*Watching movies*"

It was noted that participants who reported having three or more coping strategies during the pandemic had a lower mean score on the AAQII (M = 12.9) which equates to a higher psychological flexibility. Those who reported only one or two coping strategies over the pandemic had a higher mean score on the AAQII (M = 21.7) which indicates a lower psychological flexibility.

Measures of psychological wellbeing

To measure the psychological health and wellbeing three formal measures were used. The Warwick-Edinburgh Mental Wellbeing Scale to measure general wellbeing, the Core-10 to measure signs of mental health difficulties and the Acceptance and Action Questionnaire to measure the level of psychological flexibility (see later for more detail). Table 8 shows the mean scores and standard deviations for each of the three measures.

Table 9. Mean scores for the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS), The Core-10 and The Acceptance and Action Questionnaire (AAQ-II).

	Mean	Std
WEMWBS	42.4	9.0
Core-10	13.8	6.9
AAQ-II	20.5	9.7

Warwick-Edinburgh Mental Wellbeing Scale

Results from the Warwick-Edinburgh Mental Wellbeing Scale demonstrates that on average, respondents reported moderate levels of mental wellbeing (n= 92, *M*= 42.4, *SD*= 9.0). Higher WEMWBS scores indicate a higher level of mental wellbeing.

The Core-10

The sample outcomes on the Core-10 indicate that on average, respondents scored mild to moderate levels of psychological distress (n= 92, *M*= 13.78, *SD*= 6.9). 28% (n= 26) of the sample scored at a level deemed to be a moderate to severe level of psychological distress. 34 % (n= 31) were in the healthy low range and 38% (n=35) were in the mild to moderate range. Higher scores on the Core-10 indicate higher levels of general psychological distress.

The Acceptance and Action Questionnaire (AAQ-II)

The sample outcomes on the AAQ-II found that respondents had moderately high scores (n= 92, *M*= 20.5, *SD*= 9.7). Higher scores on this measure indicate lower levels of psychological flexibility.

The Pearson correlation coefficient was computed to assess the relationship between the Acceptance and Action Questionnaire (AAQ-II) and the Warwick-Edinburgh Mental Wellbeing Scale and the Core-10. See Table 10 for the summary of output

Table 10 shows that there was a moderate to strong positive correlation between the Core-10 and AAQ-II and a moderate to strong negative correlation between the WEMBWBS and the AAQ-II.

Table 10. **Correlation of AAQ-II to other scales**

Scale	Correlation α
Core-10 and AAQ-II	0.77
WEMBWBS and AAQ-II	-0.637

Using correlations helps to show if there is a relationship between how respondents scored on different questionnaires. Figure 1 illustrates the positive correlation between the Core-10 and the AAQ-II in a graph. It shows that those participants with higher scores on the Core-10, indicating greater levels of psychological distress, tended to have higher scores on the AAQ-II, suggesting that they also had lower levels of psychological flexibility (high scores on the AAQ-II indicate psychological inflexibility).

The negative correlation between the WEMWBS and the AAQ-II suggests the opposite. Those respondents who registered greater wellbeing on the WEMWBS tended to score low on the AAQ-II – indicating greater psychological flexibility.

A standard linear regression analysis was performed to assess the ability of the AAQ-II to predict outcomes from the Core-10. It was found that the AAQ-II significantly predicted outcomes of the Core-10 ($\beta = \beta$-1.068, $p < [.001]$).

These data suggest that those who have low psychological flexibility also tend to score high in the Core-10 (indicating they are more at risk of depression and associated issues).
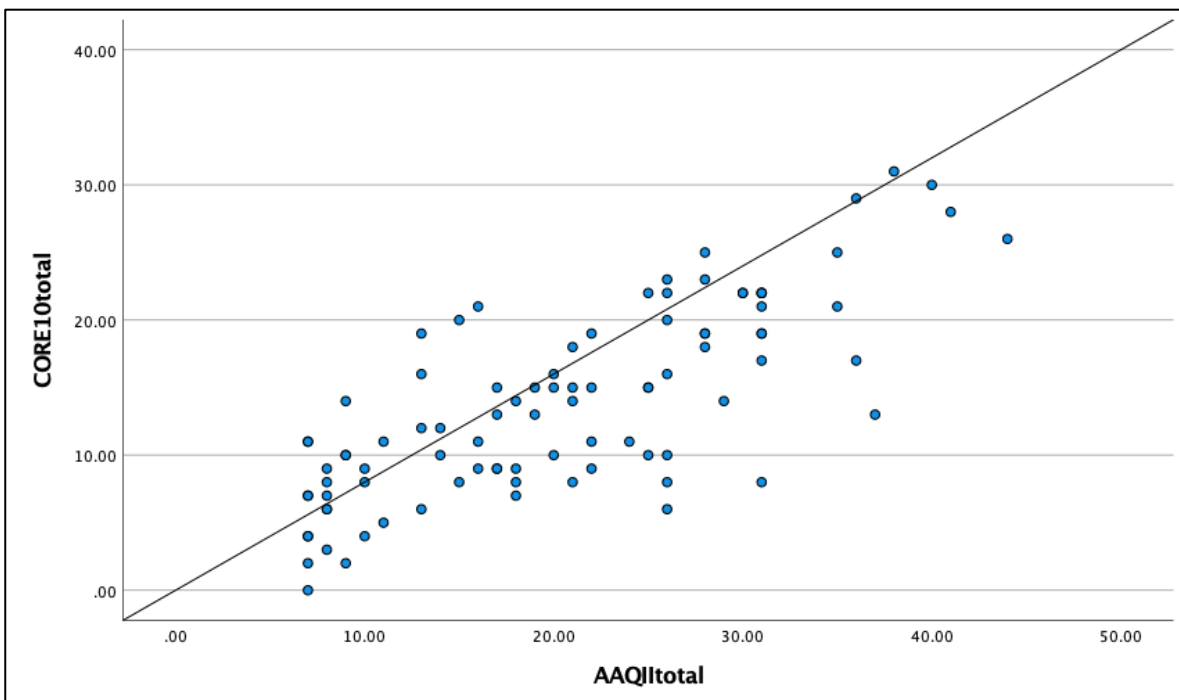

Figure 1. Pearson correlation coefficient between the Core-10 and the Acceptance and Action Questionnaire (AAQ-II).

Summary
The survey data suggests that there is considerable psychological distress amongst the participants. The higher scores on the Core-10 indicate that a good proportion of people have experienced some form of recent psychological distress and the lower scores of the WEMBWBS indicate low levels of wellbeing. The strong negative correlation between the WEMBWBS and the AAQ-II indicate that those people who were psychologically inflexible (high scores on the AAQ-II) were more likely to have low wellbeing scores (low scores on the WEMBWBS). Those people who showed signs of mental health difficulties (high scores on the Core-10) were also more likely to be psychologically inflexible (high score on the AAQ-II).

The implications of this are that if we can help people become more psychologically flexible it may act to make them more resilient and more able to experience better wellbeing.

5.2 Focus group outcomes

Parent focus group
From analysis of the data, five core themes emerged, each with several sub-themes, from the discussions with parents during the focus group. The themes are categorised in Table 11 below and illustrated on a Thematic Map (see Appendix C).

Table 11. **Themes and subthemes from parent focus group**

Themes	Sub-themes
1. Exacerbates existing difficulties	1.1 Magnifies demand of care practice 1.2 Increased parental fatigue 1.3 Deterioration in statutory support 1.4 Magnifies random occurring problems
2. Creation of new problems	2.1 Impact on child with ALN 2.2 Home schooling 2.3 Additional housework 2.4 Disconnect from previous supportive habits
3. Psychological distress	3.1 Surprise at psychological impact 3.2 Increase in aversive sensations 3.3 Disturbed behaviour patterns and thoughts
4. Positive coping	4.1 Goals 4.2 Humour

	4.3 Caring role:
	4.4 Reduced pressure
5. Ideas for future	5.1 Access to psychological therapies
	5.2 Supportive Network

Examples for each are provided below.

Theme 1: Exacerbates existing difficulties

1.1 Magnifies demand of care practice

> P4: *"Marie and Hollie no longer get on as a result of COVID, as a result of lockdown. They're getting there. We are working bloody hard to get there, but it's been awful."*
>
> P2: *"On paper, you've had a carer's assessment. The outcome was direct payment, but you can't use direct payments. But the paper trail looks good. The reality is, you've got greyer hair and you're losing the plot."*

1.2 Increased parental fatigue

> P3: *"Oh, I'm fed up of shouting.*
>
> P1: *"And in a way, it's quite exhausting 'cause we've had two years of holding it together, and now I'm like out there trying to do everything I possibly can. I'm knackered, knackered."*
>
> P4: *"You know how you say you fall into a hole; I think I'm in the hole now, not at the start. I'm feeling it now."*

1.3 Deterioration in statutory support

> P2: *"You couldn't see anybody anyway."*
>
> P3: *"Flipping cars are falling apart and everything else. All the services have gone to pot, your mobility. All that lot have gone to pot, everything."*

1.4 Magnifies random occurring problems

> P3: *"My husband's disabled because a big shedload of wood fell on his leg and snapped it in two places, which that was in September 2019. And four weeks ago, he's had to have it all re-broke again because it wasn't healing. So I'm still doing it. But we just get on with it."*

This theme suggests that the problems that families have always had to face became even greater as a consequence of the pandemic.

Theme 2: Creation of new problems

2.1 Significant impact on child with SEN

> P1: *"…she stopped talking. Oh, that was quite -- yeah, she doesn't talk at school anymore, so she's got social anxiety."*
>
> P1: *"My lovely little girl's back, but the damage is done, isn't it. So, yeah, we've got to work really hard in rebuilding the sibling relationship."*
>
> P2: *"…she prefers to be home. I suppose it's had a major effect on her as well because wherever I go, she comes with me, doesn't she."*

2.2 Burden of home schooling for children with SEN

> P1: *"...this is what people didn't get, so you'd have schoolwork sent home, and you'd have that burden of bloody schoolwork. I don't know about you."*
>
> P3: *"And there's the guilt: I don't do speech and language. And I'm a nightmare. I'm a nightmare. I have to do things. And you just get knackered, don't you."*

2.3 Additional housework

> P1: *"So you've got cooking with my two …they'd put bowls on their heads. Well, one time it had flour in it, for Christ's sake. So, there's Marie with a bowl of flour on her head, thinking this is the funniest thing. We're all laughing. But who's tidying up? So I was doing. I'm still getting them dressed. I'm still doing their personal hygiene. You know, they're 14."*
>
> P3: *"Well, that's the thing now, I hate the shops now. I can't stand it. I used to love shopping. I'd be there all the time. I can't stand it now."*

2.4 Disconnect from previous supportive habits

> P4: *"It's like you were saying you wanted to go out; I wanted to stay in, so I think I'm a bit different that, oh, I couldn't be bothered going out. Still can't now, and I think that's my problem now that, oh…"*
>
> P2: *"I got very lonely, okay, because working in a group with loads of people around you, it stopped, didn't it. I did get lonely."*

This theme shows that besides the old problems being magnified the pandemic brought new additional difficulties that required participant to utilises all their resources.

Theme 3: Psychological distress

3.1 Psychological surprise at its impact

> P1: *"and then I'd fallen in, and I just thought, I don't know how to get out of here 'cause I've never been in this hole. It's not an easy life anyway."*
>
> P3: *"because I felt I couldn't cope anymore... (I use to think) I can do this, I can crack on it 'cause I'm like get on with everything. I can do anything. I'm superwoman."*
>
> P2: *'my husband, says, "Is this Mary?" because I've changed so much. I've gone, I just prefer to be at home really."*

3.2 Increase in aversive sensations

> P1: *"'Cause that was the other thing that was big on me was guilt… I'm not doing enough. I'm not doing good enough. I'm not doing enough."*
>
> P3: *"And it was things like that feeling of nobody really giving a damn. I really thought -- and if I swear, I apologise."*
>
> P2: *"Yeah, working from home, it's lonely. It is."*

3.3 Disturbed behaviour patterns

> P3: *"Absolutely exhausts you. And then when you go to bed, you can't sleep 'cause your brain doesn't switch off."*
>
> P1: *"Yeah, I never had that before, never. We didn't have a sleep problem, but we do now."*
>
> P4: *"I didn't leave the house for three months."*

As to be expected this theme reports evidence of psychological disturbance at the level of mood, an increase in negative thinking and unpleasant physical sensations associated with increased autonomic arousal that accompanies high levels of stress.

Theme 4: Positive coping

1.1 Goals

P2: "And that was doable. *So, when I had something, a focus, I managed my stress really very well*. So that wasn't too bad."

P1: "*I would go out at 7 o'clock in the first bit. So, I didn't mind it then, you know, in the beautiful weather, and it would be out and on my bike.*"

1.2 Humour

P1: *"Bloody hell. Liz's humour has at times really helped. She doesn't always know it, but your humour is…"*

1.3 Caring role

P2: *"I quite enjoyed aspects of the activities I did with them both. Some of them were fun. There was a lot of laughter. And I think you forget that we did have a lot of laughter. And I think the lack of stress of having to engage with the world around us."*

1.4 Reduced pressure

P1: *"And we were seen on time, without the nightmare of an hour waiting with Marie going through the roof. So, yeah, when it worked…"*

P2: *"Something I noticed as well, and it was a lot less stressful, your appointments, hospital appointments."*

This theme shows that no matter how much stress parents experience, they are also capable of finding positives in their predicament.

Theme 5: Ideas for future

5.1 Access to psychological therapies available for parents and siblings

P4: *"I truly, truly believe in CBT. And I do think everybody should be offered it, regardless of whether they want it or not."*

5.2 Supportive networks

P3: "*If you're going to sit and chat to people, you need to have friends there and other people that you can always lean on again if you need to.*"

> P3: "*I'd do something like that if it was in a field, couple of tents, couple of families around all sat around a field. Let's do it that way. At least then it's nice instead of just sitting in a room like this, chit-chatting about crap that's never going to change.*"

Finally, this theme shows that the parent group had some very useful ideas for future developments to help other parents and family carers.

Staff focus group

From analysis of the data, four core themes, each with their own sub-themes, emerged from the discussions with staff during the focus group. The themes are categorised in Table 12 on the next page and illustrated on a Thematic Map (see Appendix D).

Table 12. **Themes and subthemes from staff focus group**

Themes	Sub-themes	
1. Psychological adjustment/ altered states	1.1	Disconnect
	1.2	Exacerbation
	1.3	Mood and motivation
	1.4	Worry
2. Additional burden	2.1	Workload
	2.2	Colleague inconsistency
	2.3	Challenging behaviour
	2.4	Forced change
3. Maintenance and positive coping	3.1	Interaction with pupils
	3.2	Nourishing activities
	3.3	Family
	3.4	Change of focus
4. Ideas for the future	4.1	Developing accessible tool kit
	4.2	Guidance

Theme 1: Psychological adjustment/ altered states

1.1 Exacerbation: (When a teacher referenced old problems becoming even bigger ones)

> P1: "*… but because when the pandemic all started, but then 'cause of a health condition, I wasn't allowed to work, so that just knocked me.*"

1.2 Mood and motivation: (This refers to change in mood and a loss of motivation)

P2: "*But I think my sense of who I was as a teacher has... And I think I've been in a fog; I'll be honest with you. I think I've been in a fog for the last two years.*"

P3: "*Yeah, for me with the confidence thing, if we're talking about actually teaching, it was that struggle of actually all of a sudden we were expected to do.*"

P2: "'*Cause I do wonder how much longer am I going to go on, you know, having wobbly days and feeling very flat.*"

P5: "*But you couldn't grieve in the same way because you couldn't have a proper funeral. I think all that is still kind of going around in my head, if I'm honest, yeah. So, it was a tough time.*"

1.4 Worry: (This covers unhelpful self-judgments and anticipation of problems)

P4: "*And again, what L said about starting to compare yourselves with other teachers. Some teachers are flying with it and doing all this and Team Live lessons, and I'm thinking, you know, what are the expectations here? How much am I meant to do?*"

P3: "*When we came back in September, there was quite a lot of people that had gone or planning to go. I felt quite insecure. I felt really insecure.*"

P5: "*I'm in a completely different class, and they're in your face, basically. So, you know, it's having to manage all that as well. You know, there is a worry there all the time.*"

P4: "*...'cause there's nothing I can do about whatever the situation is that's worrying me in the class.*"

P2: "*Yeah. And I'm standing there in class and thinking, I can't do that, I can't do that, I can't do that. There was no point me being there. It was crazy.*"

P5: "*And you sort of felt like here in particular and for us TAs, (teaching assistants) for some of us because we're sort of perhaps in some respects, and I'm not saying you're not, but a bit more hands-on with the children when you talk about toileting, wiping noses, all the stuff that you are at more risk.*"

P4: "*...my parents were elderly, and that was my biggest worry. And, okay, we were off for ages, and then we came back in in dribs and drabs, didn't we, and it was really quite scary because I couldn't go and see them. I couldn't do anything for them.*"

This theme captures a wide range of experiences all related to psychological distress and problems with adjustment.

Theme 2: Additional burden

2.1 Workload: (Having to take on more things)

> P3: "*So, we were doing that, but then we were expected to do the technology side as well, so it was like double workload. And it was just so draining because I am not a techy person, and I really struggled with that.*"
>
> P2: "*And the week before, maybe your class would have closed down, but this week, it might have changed, it's different. So, you're always like, oh, okay. But last week, it meant something, but this week, it doesn't. What's the difference, you know?*"
>
> P6: "*I think just parents' expectation. So, I think at the beginning, it was a massive grey area of what parents were asking teachers and teaching staff to do. So, you'd hear about teachers getting phone calls at 9 o'clock at night because that's the only time the parents could get hold of you.*"

2.2 Colleague inconsistency: (new staff need training/ who then contribute to inconsistencies)

> P4: "*And then the impact of those inconsistencies in staff if you've got different staff coming in.*"
>
> P5: "*And, yes, people have to be trained, but it was a lot of people, so it takes a while. And then you sort of feel like you'll take it on, won't you, 'cause you can't put them into new situations, if you see what you mean...*"

2.3 Challenging behaviour: (children presenting with increased CB and emotional distress)

> P5: "*And at the same time, the numbers of children coming in are going up and up and up. So, you know, that itself is quite stressful.*"
>
> P6: "*And then when things sort of got a bit more normality, then the behaviours were spiking.*"

2.4 Forced change: (Loss of valued colleagues and informal support structure and Impact of PPE)

P6: "…*just seeing the word "grief", I think that's probably the right word, actually, the certain for loss for some of the colleagues that we've all worked with that have left.*"

P3: "*the practicality of having to wear one of these (face masks). And when you've got a child that's got a severe HI, and most of your face is covered up. And what they rely on looking at is your expression on your face.*"

This theme captures the increase and variety of demands placed on teachers during the pandemic.

Theme 3: Maintenance and positive coping

3.1 Interaction with pupils: (Benefits of working with the children)

P3: "*But, you know, I still had the day to day with the young people, which was the bit that I love, and that's why I do the job I do.*"

3.2 Nourishing activities: (e.g. Things outside of school that helped)

P3: "*Yeah, exercise for me as well.*"

P4: "*Big add for exercise. Fresh air, exercise, and family, you know, time with your own family. We're always outdoors, walking the mountains.*"

P6: "*'Cause I kind of was flagging towards the tail end of... before we broke up for the summer holidays. So for the first time, I had a focus. And we were every week, weren't we.*"

P3: "*Singing. I'm a great advocate of singing. Yeah, sorry. Anybody that works in my class or has worked in my class knows.*"

P5: "*No, I agree. I sing a lot more now with my new class. It's great. I love it.*"

3.3 Family (having greater access to one's family)

P4: "…*you know, time with your own family. We're always outdoors, walking the mountains.*"

3.4 Change focus: (change the focus of thinking from being class focused to home life)

P4: "…*we all care so much about the pupils that at night sometimes, I'll wake up, and the first thing I think of is something that's happening in the class. I'm trying now to have different strategies and start thinking of something positive, you know,*

something that my own children are currently doing and trying to switch that head on when I wake up in the middle of the night."

This important theme lists examples of things individuals used to help them cope.

<u>Theme 4: Ideas for the future</u>

3.4 Develop accessible toolkit (suggestion to develop a new resource)

> P3: "*And it would be nice to have something in your toolkit that said, right, if I can just turn to this as (a) reference, and maybe… this would help me to work through how I'm feeling. 'Cause it's just been such a muddle. And, you know, people who've been doing the job years or people that have been doing the job a couple of years or whatever, they all feel in a muddle, yeah.*"

1.1 Guidance: (More structured guidance in how to teach / navigate pupils through the problems they face).

> P3: "*But then there was some families where you didn't see the child for months and months and months, and then you knew that they were struggling… but that was difficult, I think, the fact that the provision was very limited.*"
>
> P2: "*And I think their needs are increased. I think COVID has had an impact on the way some of the children behave, you know.*"
>
> P6: "*Well, there was less demands for a long time. And then when things sort of got a bit more normality, then the behaviours were spiking. So, it's been very up and down, I think, the whole way through.*"

This theme offers two practical ideas for supporting teachers in the future. Although these ideas emerged from the pandemic, they are relevant for promoting wellbeing and have a wide applicability.

Summary of focus group findings
The advantage of using qualitative data is that it offers a way of capturing the experience of participants. Figure 2 summarises the themes and sub-themes under four main headings that capture the purpose of the focus groups: (1) to investigate the personal impact of the pandemic (2) to describe the stressors that developed as a consequence of the pandemic (3) to investigate whether there was evidence of positive coping and (4) to identify ideas to promote recovery and growth in the future. The themes from the parent groups are written in blue and the themes from the staff groups are written in red. Each theme is surrounded by its sub-themes.
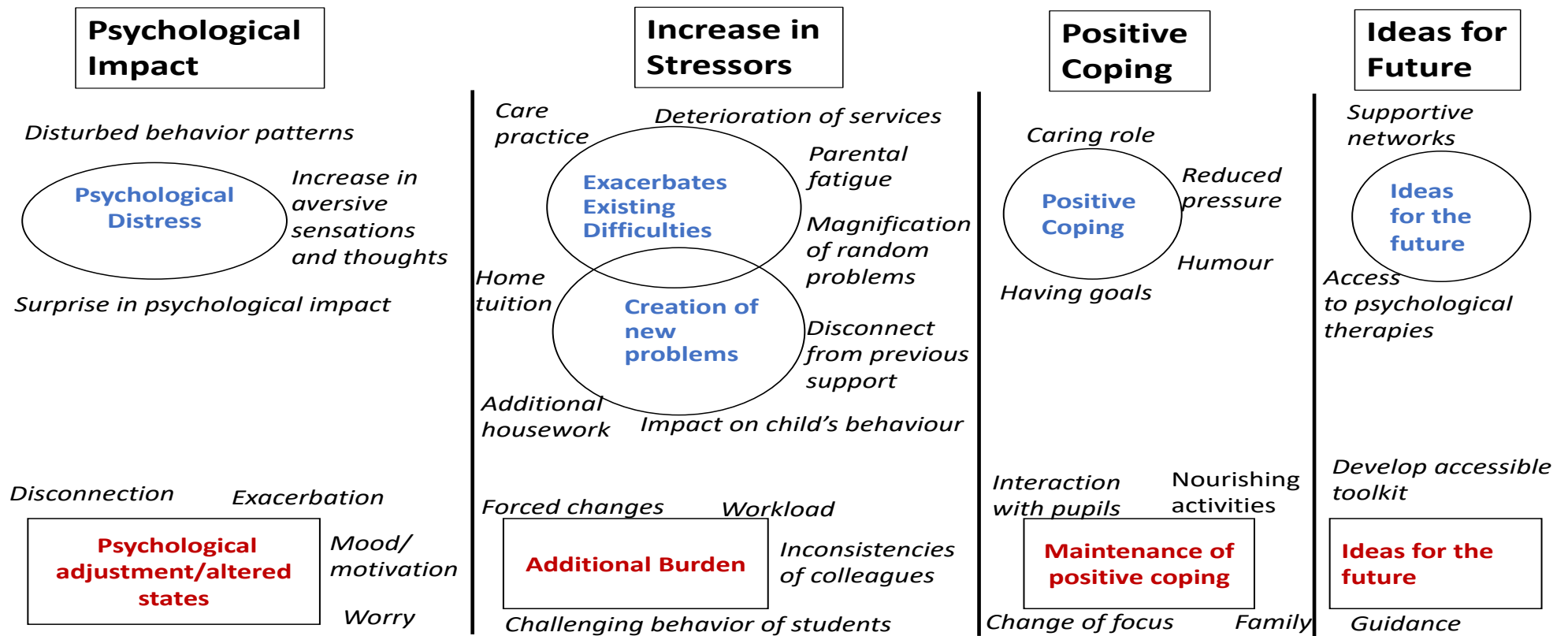
Figure 2. *Themes and sub-themes for parent and school staff group*

In column 1, Psychological Impact, it can be seen that both groups are describing recognisable distress but there would appear to be a difference in degree. The parents group report an increase in distressing physiological sensations and negative thinking, reporting a sense of 'guilt' and thoughts of 'not ever doing enough'. There were also reports of disturbance in resilient behaviour such as lack of sleep and not leaving the house for three months. The final sub-theme for the parent group captures the surprise and shock of the impact of lockdown. Many parents are highly active in their support of their family, so the surprise of not being able to fulfil this role to a previous standard must be extremely unsettling. This is captured perfectly by *P3 who had described herself as* "*superwoman… I can do anything*" *but was left thinking* "*I felt I couldn't cope anymore*".

The school staff on the other hand report less impactful but nevertheless, still unsettling experiences. They report feeling an increased sense of worry and self-doubt about meeting this new challenge and in making unhelpful comparisons with themselves against colleagues.

The second column in Figure 2, Increase in Stressors, captures the aggregate of additional demands caused by COVID. A key feature for the parent group was fatigue, which appeared to be rooted in multiple sources. These include services failing to help, increased workload of offering home tuition, and the additional housework that resulted from running homebased classes in subjects such as cooking and painting etc. There was an additional care burden in responding to their child's challenging behaviour on top of having to deal with daily care practices and unpredictable extra emergencies that occurred from time to time. The school staff had to accommodate an additional workload and change, due to valued colleagues leaving and being replaced by new staff who required induction time before they were able to help. In the meantime, there were additional challenges of inconsistencies in the staff team which had a negative impact on the children's behaviour. Inevitably there was more disruptive and challenging behaviour from some of the children.

Both groups were able to describe examples of positive experiences during lockdown that helped them to cope, captured in the third column in Figure 2, titled Positive Coping. Both the parent and school staff groups identified time spent with the children as important and positive which reflects studies that highlight the benefits of caring for a child with a disability (Griffith and Hastings, 2013). Parents deployed a range of personal strategies such as having goals and drawing on their own, and other parents', sense of humour. It was also agreed that lockdown had some unexpected benefits for those who require regular and frequent medical appointments. For example, clear roads and not having to wait for appointments.

The school staff were able to make investments in a range of nourishing activities, such as exercise, accessing the outdoors, and singing. There was also an opportunity to reinvest time with close family. There was even a sub-theme described as 'change of focus' which described a switch in thinking and attention, as teachers moved the focus of their concerns from their work in school to the welfare of their own family.

 Finally, both groups were able to offer several ideas for promoting resilience, listed in column four in Figure 2, titled Ideas for the Future. The parent group offered an interpersonal perspective and the need to generate and protect networks of support created through the school. This suggestion was voiced in opposition to the second suggestion which advocated offering family carers access to psychological therapy. The opposition came because such therapies focus on talking when, it was argued, parents need practical and social support.

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The school staff also suggested the need for help. They proposed the development of clear instructions to help them understand the psychological process of losing one's motivation or 'mojo' and practical information about what to do with the children in similar circumstances.

6. Conclusions and limitations

6.1 Summary of findings

This report offers an opportunity to describe the impact of COVID on a group who provide the care and education of children with ALN by addressing three questions.

1. How has the pandemic impacted on the wellbeing of family carers and teaching staff of children attending special schools in Wales?

The survey data suggests that the wellbeing of participants may have been compromised with some people displaying signs of low-level mental health problems, poor levels of wellbeing and both focus groups provide examples of personal experience of psychological distress. By itself this is unremarkable, given that a UK survey in 2014 found one in six adults (17 per cent) met the criteria for a common mental disorder (McManus et al., 2016). The benefit of using qualitative data is that participants were asked about how COVID had impacted their lives, and it was clear from their answers that it had done so in a negative way.

2. Can psychological flexibility help to understand the wellbeing of family carers and teaching staff of children attending special schools in Wales?

The current data did find a relationship between psychological flexibility and positive wellbeing. Positive wellbeing scores, as recorded on the WEMWBS, correlate with psychological flexibility and scores that indicate mild mental health problems, as recorded on the CORE-10, correlate with low psychological flexibility. This supports previous findings (Hayes et al., 2004; Masuda et al, 2007; Lloyd et al., 2013) of the relationship between positive mental health and psychological flexibility. There are also ad hoc findings that suggest that those participants who were able to describe three activities that promote coping were more likely to be more psychologically flexible.
Although individuals may have found the experience of lockdown difficult, there were clear examples of adaption and positive coping. Time spent with the young person, setting personal goals, and drawing on humour were examples shared by both groups of positive experiences.

3. How feasible would it be to deliver a school-based intervention that would promote better wellbeing in family carers and school staff using evidence-based approaches?

To help understand the implications of the data, Figure 3 sets out a process model to describe the experience of family carers and school staff. Both focus groups report challenging and enriching experiences. The model therefore proposes that all experience can be categorised as one of three alternatives, either values based and enriching or challenging and demanding or alternatively, something that has a neutral impact. The question is, is it possible to respond to challenging events and not be depleted?
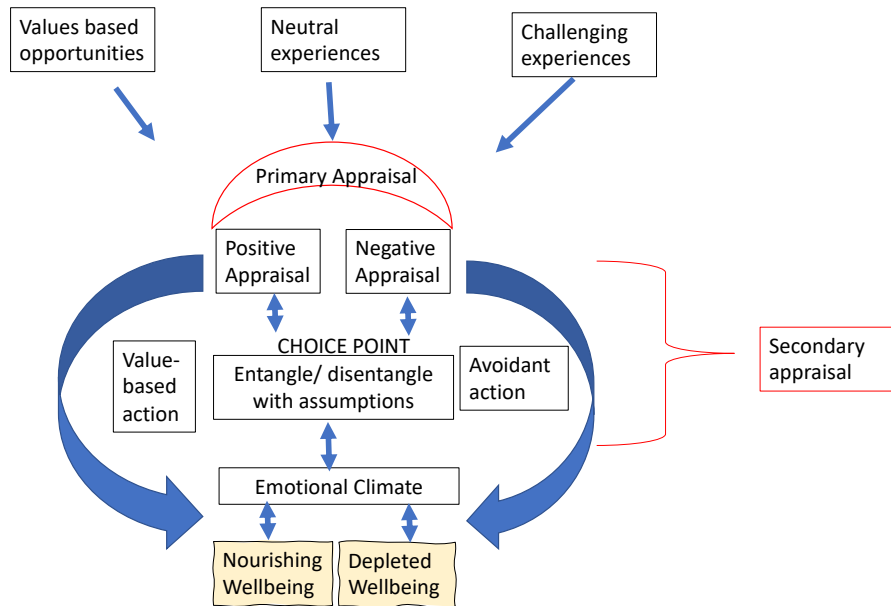
Figure 3. **Process model of psychological options to different levels of stressful demands**

The model is an integration of the Transactional Model of Stress (Lazarus and Folkman, 1984) and Psychological Flexibility (Hayes et al., 2006). The Transactional Model describes how an individual interacts with their experience via a primary appraisal of whether something is deemed threatening, neutral or potentially nourishing. Whether something is ultimately considered stressful is dependent on a secondary cognitive appraisal as to whether the event will exceed personal resources and endanger wellbeing (Lazarus and Folkman, 1984).

In Figure 3, the secondary cognitive appraisal stage has been expanded to include core processes that accompany psychological flexibility and an opportunity for positive change, sometimes referred to as a choice point. Whether the impact of a negative event produces a prolonged negative response or a shorter more resilient one, therefore comes down to two things. The first is to do with thinking. If after a negative event a person starts to believe negative assumptions about themselves, such as, "it never works out for me", or "I'm usefulness at this", they have become entangled with their thoughts and may act as if they are a true representation of the world. On the other hand, if a person is able to step back and view any thought as a temporary occurrence and not a true picture of how things are, then they have disentangled from their thoughts and are not burdened by the disadvantages of such a negative outlook.

The second step is whether a person ends up choosing to avoid their experience or actively seeks out opportunities that bring them into contact with valued activities. This is illustrated in Figure 3 by the two large arrows. Avoidance, whether it be of one's own unpleasant emotions or actions, can take up resources that take a person away from activities that are needed to replenish them. For example, after a difficult day at school, a teacher may be left believing that they are not very good at their job and feel that they don't want to meet up with friends that evening. Yet it is these friendships that are a source of renewal and energy. If the teacher ends up avoiding this opportunity and stays at home rerunning memories of negative events that reconfirm their beliefs about themselves, they miss the opportunity of a

value-based activity and end up in a worst state. In the morning they may be more depleted and less likely to be available to positive things that may happen in school.

Psychological flexibility (Hayes et al., 2006) shares the perspective of all modern Cognitive and Behavioural Therapies (CBT) that a habit of appraising events negatively, together with avoidant behavioural strategies can create a toxic mix that can lead to a negative narrative about one's life (Hayes and Hoffman, 2018; Hayes, 2019). Thoughts such as "*I'm not happy" or "Life's always hard"* are often accompanied by a subjective, adverse emotional climate (such as sadness or agitation or both). This creates a harmful combination where negative emotions promote more negative thinking and negative thinking generates more negative emotions. A psychological flexibility model brings the additional focus onto the importance of living a life in accordance with core values. In particular, how some coping strategies that have short term benefits may end up reducing opportunities to invest time in value-based activities ultimately leave a person worse off. Besides being an empirically supported theory, psychological flexibility offers pragmatic ideas for promoting positive change (Hayes et al., 2006).

Considerable agreement now exists regarding what is required for a person to achieve a sense of wellbeing. Appraising things in a way that leads to positive emotions and offers meaning and a sense of achievement has been identified by Seligman (2011) as a core part of flourishing and most authors agree of the importance of a lifestyle that connects people with their values (Heapy, et al., 2018; Vyskocilova et al., 2018; Twohig and Crosby, 2008). Figure 3 captures this as part of a virtuous cycle that can lead to a more positive narrative about one's life and a positive emotional climate and sense of wellbeing.

The purpose of presenting such a model is to describe the normal psychological dynamic that would have existed before the pandemic took its toll. Figure 4 (see below) is an attempt to show what may have happened to that dynamic with the impact of COVID. The data from this study is clear that one big impact was the reduction in the availability of activities that had previously been a source of psychological nourishment and, at the same time, there was an increase in challenging experiences. Both focus groups describe either additional burdens (the school staff group described increased workload, problems of inconsistencies from the new staff, more challenges from the children and the heavy burden of having to use PPE) or the creation of new problems (the parents group described a wide range of extra demands due to home schooling, including greater demands around housework, the loss of important supports and a deleterious impact on their child).

The dotted red box in Figure 4 denotes processes implicated in psychological inflexibility. Although it seems reasonable to assume that the period of COVID correlates with an increase in negative appraisal of events, this may only be part of the story. Within the dotted red box, the two main contributors to psychological inflexibility, becoming entangled with thoughts and avoidant action have been highlighted in bold. There was evidence that participants in the focus groups had become entangled with their thoughts. This was both at the level of appraising external events, as P3 put it: "*Flipping cars are falling apart and everything else. All the services have gone to pot, your mobility. All that lot have gone to pot, everything*", or at a personal self-evaluation, as expressed by P2: "*'Cause that was the other thing that was big on me was guilt… I'm not doing enough. I'm not doing good enough. I'm not doing enough.*"
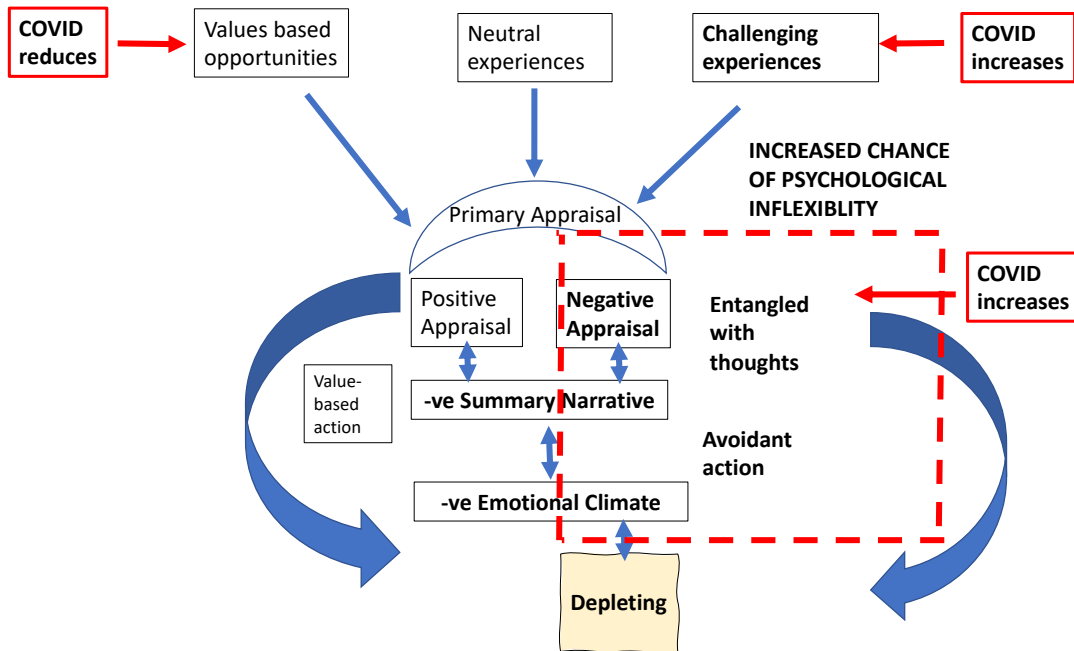
Figure 4. Possible psychological dynamic during COVID pandemic

In these examples, both parents express generalities that imply extensive and excessive problems. The first depicts services that no longer operate effectively and the second represents continuing failure. Both examples, if taken literally, could generate a sense of hopelessness and even despair if they are believed to be true. Yet if the parents learn to view these thoughts as a representation of a temporary situation or the product of a temporary emotional account, then the result could be different and allow greater flexibility in how they might respond. This is one of the benefits of mindfulness, where school staff and parents could acquire practical techniques to disentangle from unhelpful thoughts.

The second key component of psychological inflexibility is the attempt to avoid experience. This may lead to avoiding external events and inadvertently miss out on nourishing activities. An example of this was expressed by P1: "*Well, that's the thing now, I hate the shops now. I can't stand it. I used to love shopping. I'd be there all the time. I can't stand it now*" and by P4 *"I didn't leave the house for three months.*"

Figure 4 helps to show that failing to invest in activities and events that replenish psychological resources, such as social contacts or hobbies that bring a sense of accomplishment and satisfaction, will likely contribute to being depleted. The development of avoidant habits and preoccupation with unhelpful thinking may act to diminish motivation and drive for such activities.

6.2 Limitations

The greatest limitation of this study was sample size. The target population were teachers from primary, middle, secondary and special educational needs (SEN) schools across Wales with a matched number of family carers of children with ALN who attended the SEN schools in Wales. The proportion of parents and family cares was considerably lower than teachers. In total, there are 40 SEN schools across the whole of Wales, and all were invited to take part in the study. Although there was not an option for participants to identify their specific school's name in the survey, participants could report which county their school is in. Regionally, there was a disproportionate split between the north, south and mid-Wales, accounting for n=71, n=19 and n=3, respectively.

In spite of our best attempts to recruit a representative sample of teachers and parent carers from across Wales to take part in focus groups, we only achieved a subsample of participation from north Wales. The focus groups comprised of n=12 teachers and n=4 parent/carers. There was also a strong gender bias, and it remains to be seen whether a more representative sample of male teachers and parents would have produced different conclusions. However, despite the small sample size, we collected a range of experiences from participants that provided a wealth of rich information.

6.3 Recommendations

What can be done to help school staff and family carers of children with ALN? An obvious plan is to invest in education and support that helps both groups become more psychologically flexible to the challenges that occur in their life. This might involve sharing information about evidence-based principles for promoting wellbeing. A review undertaken by the New Economics Foundation (2008) of the wellbeing literature, identified five key activities that related to promoting psychological health. Since that publication these ideas have been further developed into six behaviours (see, Baskarod, 2019) that can be summarised as follows:

(1) Connecting with others – having healthy social relationships.

(2) Challenging oneself – making personal investment to continually improve via learning.

(3) Giving to others – spending time and resources helping our fellow human beings and being caring towards our planet.

(4) Exercising –engaging in physical activity.

(5) Embracing the moment - mindfully interacting with our thoughts and feelings without judgement.

(6) Self-care – looking after oneself, through basic things such as healthy eating and improved sleep quality.

Figure 5 is an attempt to show the different levels of intervention that may be necessary to influence change to promote greater psychological flexibility in a school community of children with ALN. Many schools already provide opportunities for family carers to meet and

gain informal support. One proposal is to help schools to frame and expand this current practice to take on the role of a community hub where information could be shared and learning opportunities could be coordinated. Existing activities that require family carers to give up their time, to collaborate with each other in such things as coffee mornings, walking groups, electric bike sessions, etc., would fulfil half of the six ways to wellbeing (giving, interacting with others and being active). There is clearly a platform to build upon. As a community hub, the school would be able to coordinate existing activities and frame them as opportunities for investing in the six ways to wellbeing.
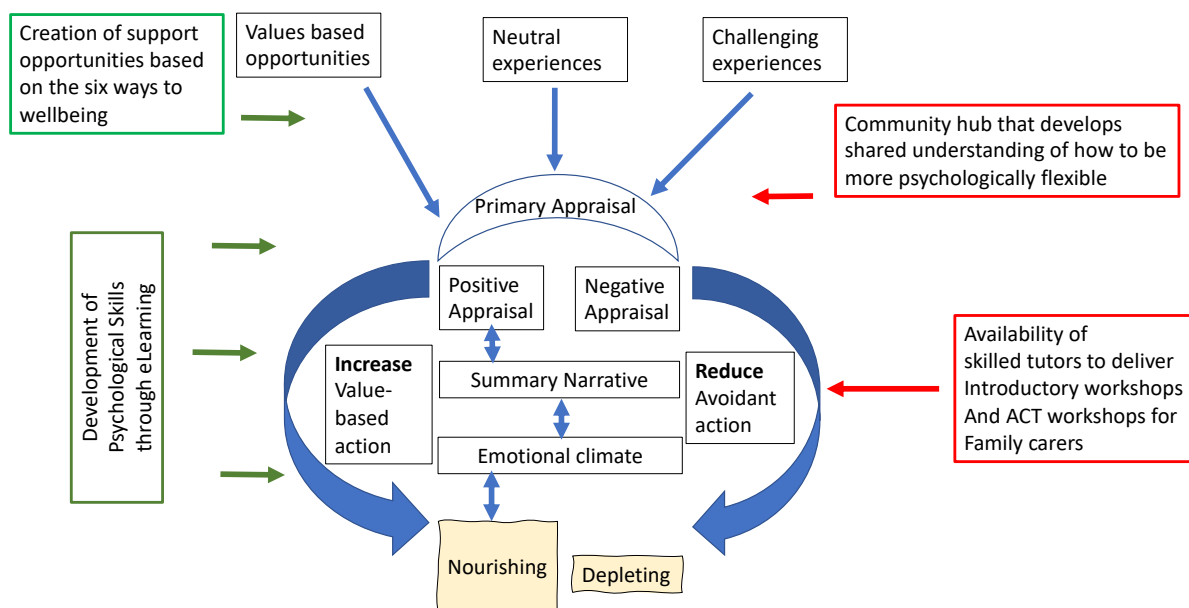

Figure 5. **Possible levels of intervention to promote greater psychological flexibility in a school community of children with ALN**

We propose that wellbeing should be addressed at a systemic, community level with a school acting as a hub, utilising available structures and resources. To do this would require three steps that could be piloted in one or two schools
.
The first is a coordinated communication strategy that would help everyone understand the basic principles of self-care. One way to achieve this would be through the development of a co-produced, highly interactive, eLearning course that sets out, in a clear and practical way, how to foster better psychological wellbeing. The eLearning would use multi-media and be accessible on a smart phone. It would offer practical examples and invite each participant to reflect on how psychologically flexible or inflexible they are and what they may choose to do about it. If salient information was broken into accessible chunks, it could be completed at a convenient time within a manageable timeframe. This would provide a shared understanding of the psychological processes of stress to a whole community with the shared goal of creating a more nurturing environment (Biglan et al. 2012). A key feature of a nurturing environment as defined by Biglan et al. (2012) is to create a functioning system that promotes the development of each individual and attempts to remove toxic events (such as stress) that inhibit personal growth. A prototype of these ideas is currently under development by the authors.

For an example of the current prototype under development click on the following link:

Link to prototype

The second step would be to supplement the eLearning with the offer of introductory, face to face workshops. This would help to cement motivation for the project and clarify core concepts. It would be an opportunity to distribute additional materials, such as a workbook, that could be used in addition to the eLearning, to aid self-reflection, personal goal setting and self-monitoring – for those who wished to. Once established the authors would advocate the development of a training the trainers' model so a lead person within the school could deliver the workshops.

The third step is an investment in training a group of family carers to become trainers of other parents in how to become more psychologically flexible through Acceptance and Commitment Therapy (ACT). Several studies have shown that it is possible to reduce the levels of stress in parents of children with ALN through the delivery of ACT workshops (Fung et al., 2018; Gould et al., 2018). A group in Toronto have demonstrated that parents can operate effectively as co-facilitators to deliver these workshops to other parents (Fung et al., 2018). This has the potential for generating co-production projects that recognise the expertise of family carers and support the school as a community hub.

ACT works by helping to clarify the core values that an individual believes is necessary for a meaningful and fulfilled life. It offers skills to become better at noticing the transitory nature of thoughts and how to disentangle from those that are domineering and unhelpful. Such an investment may help to disseminate important skills to a wider audience. It would also help to make an investment in those family carers who already have a wide range of skills and who are experts by experience.

These recommendations link with a number of important Welsh Government policy documents. For example, the overarching premise to strengthen the psychological flexibility of staff and family carers within a school community links well with Priority 1 of *Review of the Together for Mental Health Delivery Plan 2019-2022 in Response to Covid-19* (Welsh Government, 2020): to improve mental health and well-being and reduce inequalities through a focus on strengthening protective factors (p.12). Equally, the proposal to develop a co-produced, eLearning course to foster psychological wellbeing and a 'train the trainer' model of delivery and dissemination across a school community aligns closely with objective 2: 'strengthening co-production and supporting carers' (p.6). More broadly, the aim of this project aligns with the Well-being of Future Generations (Wales) Act (2015) (WFG Act), which aims to sustainably improve the social, economic, environmental, and cultural well-being of Wales. In particular, with the seven '*well-being goals'* and the '*five ways of working':* collaboration, integration, involvement, long-term, and prevention (p.6).

In conclusion, for all the negative impact of COVID it also provided an opportunity to develop a shared understanding about human vulnerability and the challenges facing family carers and school staff of children with ALN. It is very easy for anyone to ''fall into a hole'', as one of the parents so eloquently put it. Yet there is a rich literature waiting to be applied in school settings about what can be done to create a more nurturing environment (Biglan et al., 2012) that stops people falling into the hole, as well as offering practical ways of getting out. Cultivating a shared understanding of what stress is and what we can do about it, across the whole of a community attached to a school, would seem to be worthy of further investigation.

Appendix A

Parent interview schedule

1. In your own words how would you describe the impact of COVID on your own wellbeing?

2. Have you been more stressed since the start of the pandemic?

3. What was the impact on family members?

4. What have you found to be helpful during this period?

5. What do think would have helped you during this time?

6. Do you make any investments into you own health and wellbeing?

7. Could you provide some detail?

8. How would you explain what stress is?

9. What do you think people need to do to help them become more resilient to stress?*

10. Would you be interested in investing some time in learning new ways to help cope better with stress?

11. Practically speaking, how much time would you or could you be willing to give to learn how to deal with stress better? *

12. What practical support might you need to be able to achieve this? *

13. Have you got any thoughts, comments or questions based on anything you have heard so far?

* These questions were not asked because parents had addressed these issues without prompts.
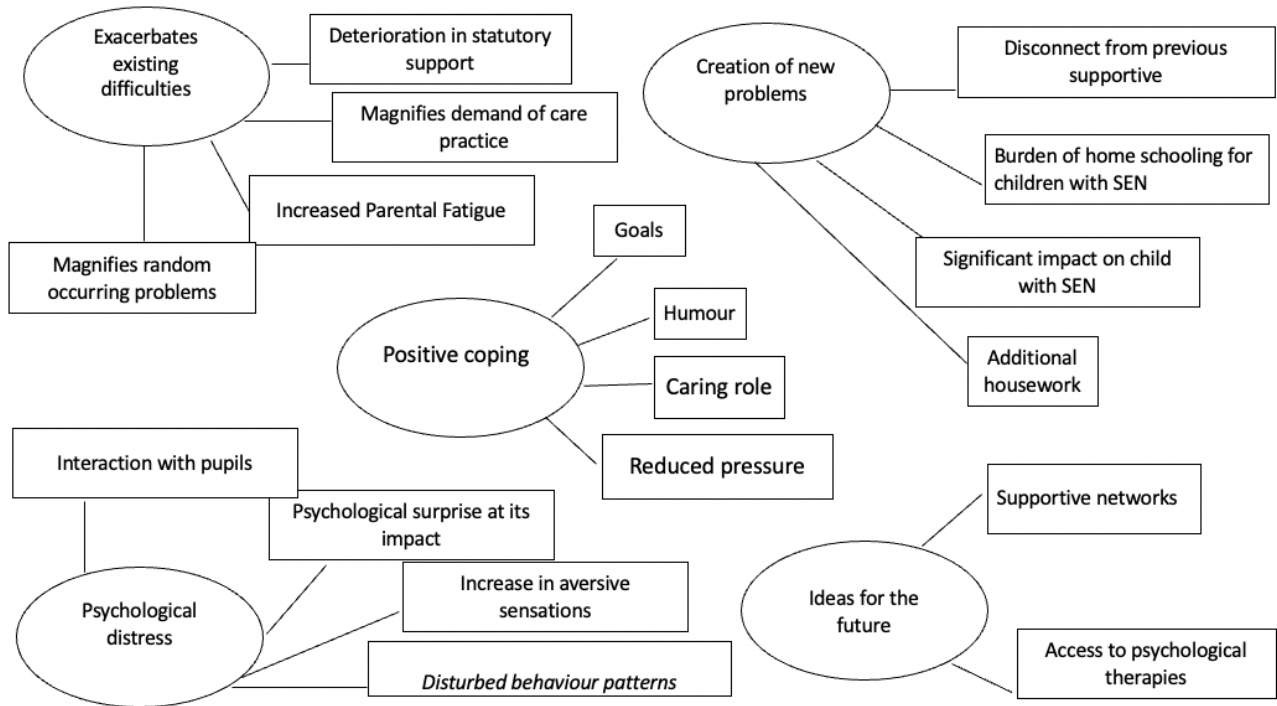
Appendix B

Staff interview schedule

1. In your own words how would you describe the impact of COVID on your own wellbeing?

2. Have you been more stressed since the start of the pandemic?

3. What was the impact on family members?

4. What have you found to be helpful during this period?

5. What do think would have helped you during this time?

6. Do you make any investments into you own health and wellbeing?

7. Could you provide some detail?

8. How would you explain what stress is?

9. What do you think people need to do to help them become more resilient to stress?

10. Would you be interested in investing some time in learning new ways to help cope better with stress?

11. Practically speaking, how much time would you or could you be willing to give to learn how to deal with stress better?

12. What practical support might you need to be able to achieve this?

13. Have you got any thoughts, comments or questions based on anything you have heard so far?

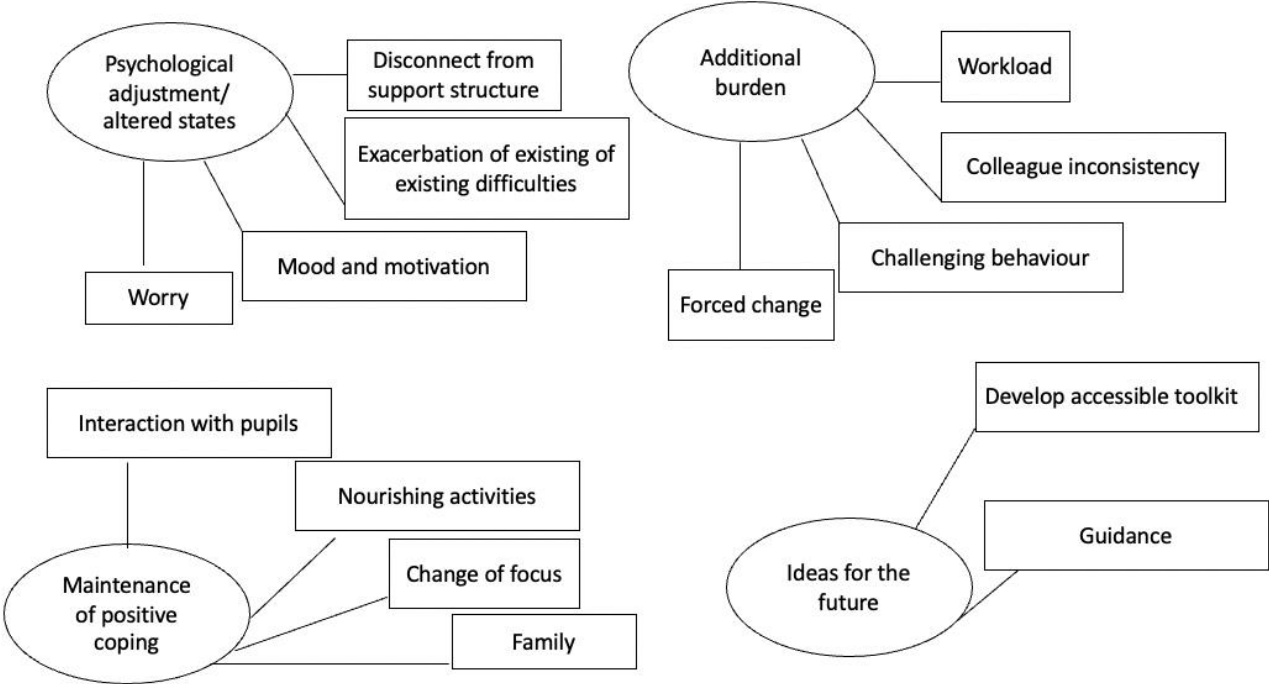All questions were asked in this order

Appendix C

Parent Thematic Map

Appendix D

Staff Thematic Map

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