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Abstract

The main purpose of this study was to explore the mental health and subjective wellbeing of staff working with adolescents with severe and profound multiple learning difficulties (SLD and PMLD). The participants were 19 teachers and 25 teaching assistants working in an inner London, local authority, specialist day provision. A demographic questionnaire, the Hospital Anxiety and Depression Scale, the Connor-Davidson Resilience Scale, the Positive Affect Scale, and the Satisfaction with Life Scale were used as data collection tools. The inferential statistical tools used were *t*-tests and correlational analyses. The study brought to light a high number of borderline and abnormal anxiety scores among all staff. The study also found a significant difference in the resilience scores of teachers and teaching assistants, with teaching assistants scoring higher on the resilience scale. The results, alongside findings from previous research, call for better mental health support for teachers and staff working in special educational needs and disabilities (SEND). The study highlights the emotional toll exerted on educators, and the need for mitigation strategies that promote mental health outcomes for both teachers and students.

Introduction

Mental health and wellbeing play a critical role in shaping human life experiences. In the United Kingdom in 2014, 1 in 6 adults had a common mental health disorder (17%), a figure which has been steadily increasing (McManus, Bebbington, Jenkins, & Brugha, 2016). Occupational stress can contribute to the mental health and wellbeing of individuals, with some professions, such as teaching, posing a higher risk than others (Johnson et al., 2005). Teachers working in special educational needs and disabilities (SEND) are at an even higher risk as this vulnerable population presents higher rates of challenging behaviours, medical needs, mental health conditions, communication difficulties and physical disabilities (Lambrechts & Maes, 2009; De Stasio, Fiorilli, Benevene, Uusitalo-Malmivaara, & Chiacchio, 2017).

Psychological wellbeing of teachers

Teaching is considered one of the most stressful professions and falls in the top 6 professions for poor physical health, psychological wellbeing, and job satisfaction (Johnson

et al., 2005). Constantly responding to the changing needs and behaviours of students, managing and adapting to changing situations and integrating relevant professional development into teaching practice are some of the challenges faced by teachers in contemporary education settings (Gu & Day, 2007; Collie & Martin, 2016; Kidger et al., 2016; Ekornes, 2017; Harding et al., 2018). Additionally, teachers are required to effectively adjust their own ability to interact with colleagues, students, parents, professionals, and paraprofessionals (Collie & Martin, 2016; Gu & Day, 2007). The job demands of teaching have resulted in teachers being at risk of reduced wellbeing and poor mental health outcomes (Kidger et al., 2016; Ekornes, 2017; Harding et al., 2018), with many having moderate to severe depressive symptoms (Kidger et al., 2016).

Teachers and teaching assistants working with adolescents who have severe and profound multiple learning difficulties (SLD and PMLD) are at greater risk of experiencing workplace stress than mainstream teachers (Emerson et al., 2001; Lambrechts & Maes, 2009; Emerson & Baines, 2010; Poppes, van der Putten, & Vlaskamp, 2010; Poppes et al., 2016). This student population is defined as having profound intellectual disabilities (IQ < 25), compromised physical functioning and severe motor disabilities, sensory impairments, and mental health problems (Nakken & Vlaskamp, 2007). Staff are exposed to high levels of challenging behaviour, (Emerson et al., 2001; Lambrechts & Maes, 2009; Emerson & Baines, 2010; Poppes, van der Putten & Vlaskamp, 2010; Poppes et al., 2016) reported to be shown by 82% of people with PMLD (Poppes et al., 2010). The most common forms are self-injurious behaviour, withdrawn behaviour, aggression, and destructive behaviour (Emerson et al., 2001; Poppes et al., 2010; Poppes et al., 2016). Other reported behaviours include inappropriate sexual or social conduct, eating objects, hyperactivity, and unusual mannerisms. These behaviours are reported to occur frequently, ranging from hourly to weekly (Poppes et al., 2010; Poppes et al., 2016). High prevalence and frequency of challenging behaviours support the hypothesis that teachers and teaching assistants working with these young people would experience higher levels of stress than their counterparts in mainstream schools. Other conditions that are prevalent in significantly higher rates among people with learning difficulties compared to the general population are mental illness, epilepsy, sensory impairment, physical impairment, motor difficulties, and respiratory disease (Emerson & Baines, 2010). Additionally, receptive and expressive

communication impairments mean interpretation of pain and health needs can fall on the carers, teachers and teaching assistants (Emerson & Baines, 2010), contributing to an increased emotional workload.

Teaching assistants

Teaching assistants are an integral part of teaching students with SEND; however, they receive little attention in research, while teachers, students and parents feature heavily. The number of teaching assistants has been growing and they now make up 28% of the school workforce, with teachers making up 48% (Kessler, Bach, & Heron, 2007; Department for Education, 2018). The remainder consists of leadership, administrative and facilities staff. In settings for SEND, the number of teaching assistants further increases, often requiring a ratio of 1 teaching assistant to each 1, 2 or 3 students. Studies of teaching assistants are largely descriptive, and few provide any analysis of the personal attributes and characteristics of this population (Blatchford et al., 2009; Webster et al., 2011; Syrnyk, 2018). Teachers qualify at university level; however, teaching assistants do not require any formal training or qualifications to do their job. As the number of teaching assistants has been increasing, and as their role is expanding and evolving, (Farrell & Balshaw, 2003; Kessler, Bach & Heron, 2007; Department for Education, 2018) it would be reasonable to include teaching assistants, alongside teachers, in research into emotional and psychological health and wellbeing. Together, they have the potential to be a positive and predictable presence in SLD and PMLD classrooms (Syrnyk, 2018).

Teacher mental health: impact on students

Young people spend a significant amount of time in school, in the presence of their teachers, and it is therefore plausible that there is a bidirectional relationship between teacher and student mental health. Teachers who experienced more intense challenging behaviour from students reported higher levels of exhaustion from their job and perceived any support they received as unsatisfactory, and this dissatisfaction was associated with emotional exhaustion (Fiorilli, Albanese, Gabola, & Pepe, 2017). Burnout in teaching is particularly concerning as it has been associated with decreased quality of instruction and a reduction in the ability to engage and teach effectively, which can potentially lead to poorer outcomes for students (Iancu et al., 2018). The strongest predictors of burnout in teachers

working in SEND are teachers' levels of happiness and job satisfaction. Additionally, teachers' personal resources and their perceptions of the work environment were strong predictors of burnout relating to the challenges of teaching students with SEND (De Stasio et al., 2017). Lambrechts and Maes (2009) reported students' challenging behaviour as a strong contributor to workplace stress in teachers working with people with SLD and PMLD.

The impact of teacher stress on students has been documented, suggesting this relationship may be bidirectional (Collie & Martin, 2017; Gray, Wilcox, & Nordstokke, 2017). Oberle and Schonert-Reichl (2016) found the burnout levels of teachers to be a significant predictor of morning cortisol levels (biological markers of stress) in primary school students. The same association occurred in individual students and on a classroom level. This bidirectional relationship has been supported by Harding et al. (2018) who found a complex, interconnected relationship between teacher wellbeing, teacher-student relationships, presenteeism and student mental health. Better teacher wellbeing has been associated with both better student wellbeing and lower psychological difficulties in students (Harding et al., 2019), and teacher wellbeing directly and positively correlates with student academic achievement (Collie & Martin, 2017). Promoting the mental health of teachers working in SEND, who are at higher risk of poor mental health, and addressing issues in teacher mental health directly, impacts the quality of life of the teachers and indirectly impacts the wellbeing and attainment of their students. Researchers have highlighted the significance of understanding and promoting the psychological wellbeing of healthy and effective teachers, and of cultivating healthy learning environments if teaching is to fulfil the purpose of supporting student development (Kunter et al., 2013; Collie, Shapka, Perry, & Martin, 2016; Gray, Wilcox, & Nordstokke, 2017).

Conceptual framework: risk and protective factors

A concept that could explain some of the variability in the mental health of staff working in SEND is resilience, a dynamic construct involving effective adaptation when exposed to a significant threat, trauma, or adversity (Luthar, Cicchetti, & Becker, 2000; Fredrickson, 2004; Windle, 2011). Resilience requires three components: significant risk, the presence of personal resources, and adaptation. Resilience is an important trait for staff working with high needs populations. Teacher resilience can be conceptualised as the extent to which

teachers can maintain their positive attributes as they face the challenges and demands of their job. Risk factors are individual attributes that correlate with adverse outcomes and restrict resilient behaviour. Protective factors enable teachers' resilient behaviour and mitigate the impact of risk factors (Mansfield, Beltman, Price, & McConney, 2012; Daniilidou & Platsidou, 2018).

Teacher burnout is a threat to the mental health of teachers. Job Demands-Resource Theory suggests that individuals experience burnout when they perceive their personal and occupational resources are inadequate to meet their required job demands (Bakker and Demerouti, 2017). Teachers report high levels of depression and anxiety, and workplace stressors such as high job demands and perceived lack of support have been found to predict teachers' levels of depression and anxiety (Borrelli, Benevene, Fiorilli, D'Amelio, & Pozzi, 2014; Kidger et al., 2016; Merida-Lopez, Extremera, & Rey, 2017). Teacher burnout is an indicator of a lack of occupational wellbeing that can have a potentially damaging effect on both teachers and students.

Predictors of subjective wellbeing in teachers include feelings of self-worth and importance, community connection, strong support from leadership, a sense of agency, and witnessing students develop and progress (Howard & Johnson, 2004; Cenkseven-Onder & Sari, 2009; Crawford et al., 2018). Hamama, Ronen, Shachar, and Rosenbaum (2012) identified personal resources, for example, self-control or perceived organisational support, as playing a role in teachers' subjective wellbeing and helping them cope with their difficulties.

Research has identified some risk factors contributing to occupational stress in teachers: a perceived mismatch between responsibility for students' mental health and confidence in their ability to support students (Ekornes, 2017), the teaching context and teachers' belief in their ability to do their job effectively (Klassen & Chiu, 2011), and general knowledge of pedagogy (Lauermann & König, 2016). Previous studies found that a perceived lack of support correlated with emotional exhaustion in teachers working in SEND; however, perceived support correlated positively with personal accomplishment (Langher, Caputo, & Ricci, 2017). Lohbeck, Hagenauer and Frenzel (2018) found that teachers' self-concept of their subject knowledge was significantly negatively linked to anxiety. Although teachers

face an increased risk of poor mental health, factors that correlate with improved wellbeing are economical, relatively easy to implement, and have the potential to have a significant impact on teachers and students.

Focusing on protective factors, personal resources and resilience could provide valuable insight into how staff working in SEND are able to manage and maintain their professional commitment and motivation within the emotional demands of the job (Gu & Day, 2007). Considering teachers' psychological health is crucial as it addresses the pain and suffering experienced by individuals, the loss of qualified and experienced staff in the profession, and the impact on students' wellbeing and academic achievement (Howard & Johnson, 2004; Gray, Wilcox, & Nordstokke, 2017; Iancu, Rusu, Măroiu, Păcurar, & Maricuțoiu, 2018; Harding et al., 2019). Howard and Johnson (2004) identified common protective traits in a small group of teachers who persistently cope well with severe job stress: a sense of agency, a strong support group with competent and caring leadership, having pride in their achievements, and competence in areas of personal importance.

This study explored the subjective wellbeing of staff working in a specialist setting for adolescents with SLD and PMLD. Relationships between the resilience of teachers and teaching assistants, their mental health (anxiety, depression), and protective factors (satisfaction with life, positive emotions) were examined. The purpose of the study was to contribute to the very scarce literature for this demographic and encourage further research into the mental health and wellbeing of all staff supporting young people with SLD and PMLD, for the direct benefit of the staff and for the students they are working with. Based on the current literature around high rates of anxiety, depression and burnout in teachers, and the influence of protective factors in buffering the effects of workplace stress, the study predicted that poor mental health would be found in this staff population and that resilience will be positively associated with protective factors (positive emotion and satisfaction with life) and negatively correlated with mental health risk factors (anxiety and depression). The study also attempted to provide preliminary evidence to support wellbeing interventions for staff working in high needs settings.

Method

Participants

The sample participants comprised 44 staff members from a specialist secondary day provision for adolescents with severe learning difficulties (SLD) and profound multiple learning difficulties (PMLD) in the London Borough of Tower Hamlets (LBTH). Of the 44 staff members who responded, 19 were qualified teachers and 25 were teaching assistants. Participants ages were grouped and ranged from 21-30 through to 60+. There were 33 female participants and 11 males. The highest level of education accessed ranged from high school to master's level degrees. Demographic information is shown in Table 1.

Table 1

Participants demographic information

Variable	<i>n</i>	%
<i>Role</i>		
Teacher	19	43.2
Teaching assistant	25	56.8
<i>Age</i>		
21-30	9	20.5
31-40	16	36.4
41-50	13	29.5
51-60	3	6.8
60+	3	6.8
<i>Gender</i>		
Female	33	75
Male	11	25
<i>Education Level</i>		
High school	5	11.4
NVQ	14	31.8
University degree	11	25.0
Postgraduate certificate	8	18.2
Master's degree	6	13.6

Procedure

All participants were recruited via email and used an anonymous link to access the questionnaire online. Participants provided consent electronically then proceeded to complete the questionnaires. Upon completion of the survey, participants were provided with debrief information and links to mental health support services. The response rates for the research were 75% for teachers and 50% for teaching assistants. The variation in response rates between teachers and teaching assistants suggests the sample may be self-selecting and may be biased towards the staff who were motivated to respond. The results should not be generalised beyond this school.

The study received approval from the UCL Institute of Education Research Ethics Committee (Appendix A). Emails were sent to potential participants inviting them to complete an online questionnaire. The email contained information about the study, data, and consent, and included links to the anonymous online questionnaire. The Qualtrics system (<https://www.qualtrics.com/uk/>) was used to generate the questionnaires and collect all the data.

Measures

The present study used four measures of mental health and subjective wellbeing and a demographic questionnaire. All measures were completed online by the teachers and teaching assistants working in the secondary school for adolescents with SLD and PMLD.

Demographic questionnaire

The demographic questionnaire (Appendix B) gathered information on the participants age group, gender, highest level of education and their role within the school. Teachers completed additional questions on their length of service, the age range of the students their initial teacher training qualified them to teach, whether this training was in the United Kingdom or abroad, if they had a special education qualification, and their future career plans.

Resilience

The Connor-Davidson Resilience Scale (CD-RISC: Connor & Davidson, 2003) was used to measure staff levels of resilience (Appendix C). It is a well validated scale that received high

ratings in a review of resilience scales and has been developed for use in adult populations (Windle, Bennett, & Noyes, 2011). The CD-RISC comprises 25 items that assess the characteristics of resilience and measure stress-coping ability (Connor & Davidson, 2003). Examples of items on this scale include: *"I am able to adapt when changes occur,"* and *"I tend to bounce back after illness, injury or other hardships."* All items were rated on a 5-point Likert scale ranging from 1 (*not true at all*) to 5 (*true nearly all the time*). In the present study the scores ranged from 43 to 100. Cronbach's alpha coefficient in the present study was 0.89 for staff working in SEND.

Mental health

The Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983) was developed to measure participants' anxiety and depression symptoms over the previous week (Appendix D). The HADS contains 14 four-point items. Seven of these assess anxiety (e.g., *worrying thoughts go through my mind*), and the remaining 7 items assess depression (e.g., *I have lost interest in my appearance*). The total scores on each of the subscales were used in this study. In the present study anxiety scores ranged from 0 to 16, and depression scores ranged from 0 to 14. Cronbach's alpha coefficients for staff working in SEND in the present study were 0.52 for anxiety and 0.49 for depression. This value highlights a lack of consistency in participants' responses. As the HADS has been tested for validity and reliability, this inconsistency could be due to the timing of the data collection. Participants responded during the first national lockdown of the Covid-19 pandemic in the U.K., and it is reasonable to assume that measures of anxiety and depression were influenced and affected by everyone's experience of this global event.

Life satisfaction

The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) is 5-item questionnaire that measures participants' life satisfaction as a cognitive judgemental process (Appendix E) where participants make an overall judgement of their life (e.g., *the conditions of my life are excellent*). Responses were made on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*) and generated a final score with a possible range between 5 and 35. In the present study the scores ranged from 7 to 34. Cronbach's alpha coefficient for staff working in SEND in the present study was 0.88.

Positive affect – PANAS

Positive affect is a measure of the extent to which the participants' feel active, alert, and enthusiastic. High positive affect is characterised by energy and concentration whereas low positive affect is characterised by lethargy and unhappiness (Watson, Clark & Tellegen, 1988). This 10-item questionnaire is one section of the 20-item Positive and Negative Affect Scales (Watson et al., 1988) and assessed the positive emotions (e.g., *strong, inspired*) experienced by participants in the present moment (Appendix F). Participants rated their feelings on a 5-point scale ranging from 1 (*very slight or not at all*) to 5 (*extremely*). In the present study the scores ranged from 17 to 50 and the Cronbach's alpha coefficient for staff working in SEND was 0.91.

Data Analysis

T-tests were conducted to explore group differences (by role and gender) in scores of subjective wellbeing (anxiety, depression, resilience, satisfaction with life, and positive affect). A correlational analysis was conducted to explore any associations between each of the measures of subjective wellbeing. A moderation analysis was conducted to explore the contributions of any third (risk or protective) factor in any relationships between independent variables and outcome variables (measures of subjective wellbeing).

Results

The present study examined the subjective wellbeing of 44 in-service teachers and teaching assistants working in SEND. Measures assessed risk factors (anxiety, depression) and protective factors (resilience, satisfaction with life, and positive emotions). To explore staff subjective wellbeing in cross sectional data, the independent demographic variables of role, gender, age, and highest level of education were selected to be included in the analyses. Role and gender were included in the bivariate analyses using independent samples *t*-tests. A correlational analysis was conducted for all the outcome variables (resilience, anxiety, depression, satisfaction with life, and positive affect) to identify any relationships between outcome variables. All the outcome variables were examined for normality using Shapiro-Wilk tests. These confirmed that all continuous variables were normally distributed and appropriate for parametric analysis.

Table 2

Comparisons by role on measures of subjective wellbeing in a sample of staff working in SEND (n = 44)

	Resilience	Anxiety	Depression	Satisfaction with Life	Positive Emotion
All staff (n = 44)					
<i>M</i>	67.00	8.00	5.45	21.11	32.73
<i>SD</i>	13.92	4.17	3.54	6.94	8.46
Teachers (n = 19)					
<i>M</i>	62.05	8.16	5.05	21.53	30.05
<i>SD</i>	10.85	3.30	2.59	7.64	6.88
Teaching Assistants (n = 25)					
<i>M</i>	70.76	7.88	5.76	20.80	34.76
<i>SD</i>	14.98	4.79	4.15	6.49	9.10

Exploring group differences in measures of subjective wellbeing

Independent samples *t*-tests were run on two independent variables (role and gender) with each of the measures of subjective wellbeing (resilience, anxiety, depression, satisfaction with life, and positive affect) to explore any differences between teachers and teaching

assistants (Table 2), and males and females. Inspection of Q-Q Plots revealed that resilience was normally distributed for both groups in each independent variable (teachers and teaching assistants; female and male) and that there was homogeneity of variance as assessed by Levene’s Test for Equality of Variances. Therefore, an independent samples *t*-test was run on the data with a 95% confidence interval (CI) for the mean difference. It was found that resilience in teaching assistants was significantly higher than in teachers, $t(42) = 2.14, p < .05$. Teaching assistants had a higher mean resilience score ($M = 70.76, SD = 14.98$) compared to the mean score of teacher resilience ($M = 62.05, SD = 10.85$).

Anxiety and depression scores from the HADS were grouped according to whether they were normal, borderline, or abnormal cases (Table 3). Borderline cases were higher than reported national averages (McManus, Bebbington, Jenkins, & Brugha, 2016) for both anxiety (18%, $n = 8$) and depression (18%, $n = 8$), and anxiety scores in the abnormal range were 32% ($n = 14$). These results suggest anxiety could be a risk factor for the wellbeing of staff working in SEND.

Table 3

Contingency table for anxiety and depression scores by case grouping

	Normal		Borderline		Abnormal		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Anxiety	22	50%	8	18%	14	32%	44	100%
Depression	33	75%	8	18%	3	7%	44	100%

Exploring relationships between measures of subjective wellbeing

All 5 measures of subjective wellbeing were included in a Pearson’s correlational analysis to identify relationships between any two outcome variables (Table 3). Resilience was positively correlated with positive emotion, $r(42) = .60, p < .01$, and negatively correlated with anxiety, $r(42) = -.31, p < .01$. Anxiety positively correlated with depression $r(42) = .69, p < .01$, and negatively correlated with satisfaction with life, $r(42) = .51, p < .01$, and positive emotion, $r(42) = -.43, p < .01$. Depression negatively correlated with both satisfaction with

life, $r(42) = -.43, p < .01$ and positive emotion, $r(42) = -.40, p < .01$, and finally, satisfaction with life positively correlated with positive emotion, $r(42) = .32, p < .01$. Results show that both anxiety and positive affect were related to all measures of subjective wellbeing. Resilience was related to anxiety and positive affect, and depression was related to satisfaction with life.

Table 3

Correlations between staff reports on 5 measures of psychological and emotional wellbeing (n = 44).

	Resilience	Anxiety	Depression	Satisfaction	Positive Affect
Resilience	-				
Anxiety	-0.318*	-			
Depression	-0.234	0.691**	-		
Satisfaction	0.287	-0.509**	-0.430**	-	
Positive Affect	0.601**	-0.434**	-0.402**	0.317*	-
<i>M</i>	67.000	8.000	5.455	21.114	32.727
<i>SD</i>	13.915	4.171	3.540	6.936	8.459

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

* $p < .05$. ** $p < .01$.

Further Analysis

A moderation analysis was conducted to explore whether any relationships between psychological and emotional wellbeing were dependent upon the addition of a third factor. This analysis showed no significant influence of additional variables on associations.

Discussion

General discussion

The purpose of the present research was to explore the subjective wellbeing of staff working with adolescents with SLD and PMLD, and to examine any relationships between risk factors (anxiety and depression) and protective factors (resilience, satisfaction with life and positive emotions). The research predicted that poor mental health would be found in this population, and that resilience would be positively associated with positive affect and satisfaction with life, and negatively associated with anxiety and depression.

The study found high numbers of abnormal and borderline anxiety scores among all staff, however this was not the case for depression. Further, anxiety was associated with all measures of subjective wellbeing; negatively correlating with all three protective factors and positively correlating with depression. The direction of these relationships has not been identified; however, the findings provide strong evidence that anxiety is a risk factor for poor staff mental health and suggest that interventions addressing anxiety in staff working in SEND have the potential to contribute to the development of multiple protective factors and supporting mental health. The broaden-and-build theory of positive emotions (Fredrickson, 2004) describes this relationship. Positive emotions will broaden an individual's mindset. A consequence of a broader mindset is the discovery of new actions, ideas and social bonds, which then build the individual's personal resources. If stress and burnout is related to repeated experiences of anxiety, anger, frustration, and guilt, then helping teachers to regulate their emotions may contribute to reducing or preventing teacher burnout. This study found evidence supporting the broaden-and-build theory as positive affect correlated positively with resilience and satisfaction with life, and negatively with anxiety and depression. Intervention could benefit from a multi-faceted approach: supporting teachers to manage their mental health and wellbeing; building and developing staff resilience and positive affect; and making organisational recommendations for school leadership to support staff mental health and wellbeing.

Teaching has been identified as one of 6 professions reporting worse than average scores on measures of physical wellbeing, psychological wellbeing, and job satisfaction (Johnson et al.,

2005). The present study found a significant difference in resilience between teachers and teaching assistants, with teaching assistants scoring higher on the resilience scales. One possible explanation for this could be the different levels of responsibility between teachers and teaching assistants. Teachers have primary responsibility over the classroom, student welfare, liaising with parents, maintaining their own professional development, and directing the teaching assistants. Teaching assistants support the teacher; however, they have limited responsibility for higher level decision making. If the level of responsibility is contributing to increasing teachers' anxiety and preventing them from building resilience, decision making in SEND could be shared among teachers. Making decisions as part of a group may diffuse some responsibility and potentially result in teachers feeling supported in their decision making and alleviating some individual responsibility.

The Connor-Davidson Resilience Scale used in this study was developed for use within the general population. Daniilidou and Platsidou (2018) found that widely used resilience scales were not suitable for measuring teacher resilience, leading these researchers to create their own scale. Further research into the suitability of general resilience scales for specific occupations is required.

Research on teacher resilience so far has relied on one-time, cross-sectional survey data (Chang, 2009). This study could be expanded to include longitudinal and qualitative data, to measure mental health over time and the impact of interventions. Focusing on more resilient teachers working in SEND and attempting to identify their emotional regulation and coping strategies, and external and internal coping mechanisms, may provide valuable insight on supporting teachers who are struggling. Exploring relationships between teacher resilience and additional dimensions of teaching over the career lifespan, for example, the length of teacher tenure, additional qualifications, and future career aspirations will provide insight to develop targeted intervention for career satisfaction and retention. Questions for further research may ask whether some teachers and staff working in SEND adapt and become accustomed to the high levels of stress and responsibility, or if they experience occupational fatigue and are prevented from building resilience and protective factors.

This study supports findings of previous research calling for better mental health support for teachers and staff working in SEND. Chang (2009) recommends teacher education programs should include a focus on increasing teachers' understanding of the emotional toll of the profession and on identifying, reflecting on, and effectively coping with these emotions. Chesak et al. (2019) report the SMART program (stress management and resiliency training) as showing promising effectiveness in improving anxiety, stress, gratitude, happiness, life satisfaction, and quality of life. Hwang, Bartlett, Greben and Hand (2017) found mindfulness-based interventions showed potential in enhancing teachers' psychological wellbeing, relations with others and their teaching practise. Mindfulness-based interventions also have an indirect effect on the students who are taught by the teachers trained in mindfulness. If staff are to develop and maintain resilience, schools should prioritise staff mental health and wellbeing alongside student mental health and wellbeing.

Repeated exposure to adverse experiences is a characteristic of working with high-needs and vulnerable populations and could be a partial explanation for the high levels of anxiety reported by staff working in SEND. Fatigue and anxiety resulting from repeated exposure to adverse experiences may be mitigated by rotating staff between year groups and student groups. This would share the responsibility and exposure to situations with more challenging behaviour or higher medical responsibility. This also provides the opportunity for all staff to learn the multitude of skills required in this environment. Finally, debriefing and supervision with mental health professionals from outside the school would provide the opportunity for staff working in SEND to talk through their concerns with a professional who is independent from the school.

Considering the evidence of an association between teachers' mental health and students' mental health, and the importance of teacher-student relationships, it would appear advisable to propose intervention strategies that promote mental health outcomes for both teachers and students. Jennings and Greenberg (2009) propose a model of a pro-social classroom, in which teachers' mental health influences the classroom atmosphere and student learning outcomes. The model also places teacher wellbeing as a core contributor to supportive teacher-student relationships. Kidger et al. (2016) identified a need for interventions that support teachers' mental health and provide training for teachers to

support young people. The findings of this study, when taken together with the established relationship between staff and student mental health, support the need for mental health and wellbeing intervention targeted to both staff and students.

Evaluating the research on teacher mental health within the ecological-contextual model of child development (O'Connor & McCartney, 2007) points to an integrated approach to future research and intervention. Informing intervention at the school-level may improve both teacher and student wellbeing. Integrating emotional and psychological wellbeing into teacher preservice training programs may encourage a greater awareness of teachers' mental health and provide strategies for the management and reduction of teacher stress. Stress appears inevitable in SEND teaching and support. It is useful to examine the contributors to teacher and teaching assistant stress; however, it is also useful to understand what characterises resilience in staff working in SEND. The capacity of staff working in SEND to maintain wellbeing while dealing with personal and job-related stress may give valuable insight for future interventions for all teaching professionals.

Limitations and future research

The study took place during the global Covid-19 pandemic, amid the first national lockdown in the United Kingdom. It is likely to have affected the number of responses and the participants' reporting of their wellbeing. Resilience is a dynamic process that fluctuates over time (Windle, 2011). Considering the pandemic, and the consequent impact on individual and societal mental health and wellbeing, no strong conclusions can be drawn from these results.

The participant sample size was small, with only 44 respondents. The sample came from one setting, and each school has its own culture and unique way of operating. Future research to replicate and extend the findings would benefit from including a larger sample of SEND schools, a larger number of participants, and longitudinal data collection.

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