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School Disruption and Classroom Climate on Teachers' Burnout and Wellbeing

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ABSTRACT

Teachers with high levels of burnout and reduced levels of wellbeing are twice as likely to leave the teaching profession. For those that stay, it can result in strained relationships with their pupils and a difficulty to effectively manage classroom behavior. This study focused on the emotional strain felt by teachers during periods of educational disruption and how his varied according to school size, school-level disadvantage and levels of pupil-reported bullying and victimization. Data were collected from 11,111 primary school pupils and their 748 teachers in 2020 before the pandemic lockdowns, and in the summer of 2021 when schools had re-opened. Teacher wellbeing and burnout levels (exhaustion, cynicism and professional efficacy) were collected. Teachers reported higher levels of burnout and reduced levels of wellbeing after the school disruption, and teachers of classrooms with the highest proportion of pupil bullying perpetration were found to have the lowest levels of teaching professional efficacy. This study identifies that suitable support needs to be in place for teachers during or following an educational disruption, especially for teachers struggling with challenging classroom dynamics, such as bullying. We suggest that a whole-school support network and program that equips schools to attend to the wellbeing needs for teaching staff could be developed.

1 | Introduction

The teaching profession is known for its exposure to demanding workplace conditions (Madigan et al. 2023) including physical, social, psychological, and organizational aspects (Hakanen et al. 2006), as well as increasing workloads globally adding further workplace stress (Department for Education 2023; UNESCO 2024). Yet when discrepancies between the resources required to cope with demanding situations, and the resources available for teachers to deploy exist, this imbalance can lead to burnout (Madigan et al. 2023; Maslach and Leiter 2008; Parker et al. 2012) and reduced wellbeing (Duckworth et al. 2019; Duckworth et al. 2009; Hascher and Waber 2021). This can be harmful for both teachers and their pupils (Burić et al. 2019) and a recent report showed that teachers with higher levels of stress and burnout were more than twice as likely to leave the teaching profession (OECD 2019).

1.1 | Wellbeing and Burnout

Wellbeing refers to the broader psychological, social-emotional and physical aspects of an individual that forms their baseline of health (Hascher and Waber 2021). This baseline can be disrupted by feelings of burnout. Burnout—a chronic state of workplace stress—is typically defined by three interrelated

Summary

- Teachers experienced higher levels of cynicism, lower levels of professional efficacy and decreased wellbeing after the pandemic, suggesting additional support may be required in situations of unexpected school disruption.
- Particular school-based support may be required for teachers who have higher proportions of bullying perpetrators in their class to avoid increased burnout.
- The emotional wellbeing and level of burnout of teaching staff should be considered during times of educational disruption, as well as the practical aspects of the job.

dimensions: (1) emotional exhaustion, which involves feelings of being emotionally overextended and exhausted in relation to work, feeling strained and tired, and lacking emotional energy for the role; (2) cynicism, whereby interactions with pupils and colleagues are impersonal and dispassionate, with a general sense of detachment from work; and (3) professional efficacy, arising from feelings that include reduced professional competence or inadequacy in a role, and lack of personal accomplishment at work (Madigan et al. 2023; Maslach and Jackson 1981; Maslach and Leiter 2008; Pyhältö et al. 2021). Measuring wellbeing provides an indication of someone's foundational state of life satisfaction; measuring burnout can indicate a more urgent stress reaction from workplace pressures. Reduced wellbeing is one of the causes of burnout and the consequences and impact of burnout and reduced wellbeing can be detrimental, both for teachers and their pupils (Burić et al. 2019). For teachers, the adverse consequences can include impaired physical health (Madigan et al. 2023), mental illness (Bianchi et al. 2015; Capone et al. 2019), absenteeism (Bowers 2001; Carrizosa and De Witte 2024), presenteeism or continuing to work whilst physically or mentally unwell (Coledam and da Silva 2020; Kidger et al. 2016), staff turnover, reduced performance or diminished commitment to the school or the profession (Grayson and Alvarez 2008; Ofsted 2019) and reduced capacity to deliver effective educational instruction and to manage classroom behaviors (Jennings and Greenberg 2009; Madigan and Kim 2021). The Job Demands-Resource model (JD-R; Bakker and Demerouti 2007; Bakker 2015; Bakker et al. 2023) proposes that wellbeing is in fact a moderator for the impact of occupational resources on work engagement. The model proposes that higher levels of wellbeing can conduce to higher vitality and engagement in work. Thus, a good foundation of wellbeing can support teachers in dealing with their job demands and to profit from the resources available to them (Bakker 2015; Bakker et al. 2023). However, when teachers experience reduced mental health and wellbeing, and continue to work despite these challenges, they are less likely to establish positive and supportive relationships with their pupils, and be less able to effectively manage classroom behavior (Harding et al. 2019), and therefore perhaps less likely to support the delivery of much needed social-emotional, and anti-bullying interventions. When teacher-pupil relationships are positive, pupils experience better mental health (Kidger et al. 2012), and stronger feelings of safety and wellbeing (Jamal et al. 2013). When difficulties arise in establishing positive teacher-pupil relationships due to teacher burnout and reduced wellbeing, this can become a risk factor for pupils' mental health and wellbeing (Harding et al. 2019).

A recent systematic review on the determinants of burnout among teachers identified several considerations that influence experiences of burnout. These included classroom disruption, work climate (pressure), job satisfaction, neuroticism and self-efficacy, as well as perceived collective exhaustion (Mijakoski et al. 2022). However, longitudinal data on the trajectories and recovery patterns of teacher burnout reveal mixed findings. For example, while social support can have an intuitive appeal to decrease emotional exhaustion and is suggested to be a protective factor against burnout, this finding is not consistent. Indeed, Beausaert et al. (2016) found that increased community support can be detrimental to emotional exhaustion, unlike increased collegial support, which diminishes emotional exhaustion (see also Mijakoski et al. 2022). The finding that community support has a negative impact goes against the assumption that support (in general) would reduce emotional exhaustion, something conceptualized as 'the downside of empathy' (Mijakoski et al. 2022, p. 40), whereby closer connection to the community results in greater vulnerability to community stress. Fleming et al. (2023) found that supportive relationships at a collegial level helped to remedy or prevent burnout.

1.2 | Educational Disruption and COVID-19

In 2020, teachers across the world were faced with the overwhelming challenges of COVID-19 school closures. Over 90% of children (1.5 billion) were not physically in school (UNESCO 2021), with schools and teachers struggling to maintain pupil contact and continued education and support. In the UK, the majority of children spent fewer than 5 months physically in school between March 2020 and March 2021 (GOV.UK 2021). Although the impact of educational disruption due to pandemics, natural disasters or war and civil unrest, on children's wellbeing and education has been well considered and documented both pre- and post-school closures, and during the disruption timeframe (Badger et al. 2024; Colao et al. 2020; Islam et al. 2016; Kousky 2016; O'brien 2020), research on the impact on the teachers during these disruptions is more limited. Where studies have focused on teachers during a period of educational disruption, it is often with a primary focus on how they adapted, and felt about adapting, their teaching (see e.g., Alsoud et al. 2021; Chaaban et al. 2021; Ida Fatimawati et al. 2022). A recent systematic review identified 53 empirical studies investigating teacher wellbeing and/or burnout during the COVID-19 pandemic (see Katsarou et al. 2023) and found that across the reviewed research, teachers had elevated levels of stress and burnout during the school closures. However, many of the studies related this to stressors linked to the wider pandemic situation, such as reduced physical wellbeing due to a sedentary lifestyle, feelings of social disconnectedness, a fear of becoming unwell with COVID-19, or with having to navigate new technology and a remote teaching approach. Some of the positive facilitators to better wellbeing were identified, such as self-esteem as a competent teacher, work passion, readiness for innovation, organization, and proactive self-care strategies. Overall, these findings identified the debilitating impact of

educational disruption (see also Pyżalski and Poleszak 2022). A paper by Kim and Asbury (2020) on the impact of the first 5–6 weeks of the COVID-19 school closures on teachers ($N = 24$), highlighted several stressors. These included (1) feelings of uncertainty, (2) wanting to "find a way," (3) the importance of good relationships, (4) shared teacher identity as a stressor *and* as a coping mechanism, (5) reflection on ways to improve pupils' educational experience, and (6) worry for the most vulnerable pupils. When considering these factors alongside previous research into stressors for teachers that has shown that teacher stress can be caused by uncertain external demands, inspections and targets (Kidger et al. 2010; Kidger et al. 2021), it is perhaps unsurprising to see an overlap in these first 5–6 weeks of disruption. Additional stressors include unsatisfactory working conditions, feeling inadequately prepared (Brewer and Shapard 2004; Gavish and Friedman 2010), poor relationships amongst colleagues and with superiors (Hakanen et al. 2006; R. Richards et al. 2018), and decreased support from administrators and parents (Marshall et al. 2023). Additional research has identified the same themes and psychological responses as Kim and Asbury, for example, Sokal et al. (2020) collected survey data with 1626 Canadian teachers in April 2020 and June 2020 and identified an increase in burnout. Yet it is unclear is whether these detrimental experiences and feelings returned to baseline when schools re-opened and settled back into a more familiar routine.

1.3 | Classroom Climate

One factor that can impact school and classroom climate is school-level disadvantage (in the UK, this is the percentage of pupils in a school who are eligible to receive free school meals; a decision based on family income). It has been found that higher school-level disadvantage can result in poorer wellbeing, increased violence and overall worsened classroom climate (Badger et al. 2023; Barnes et al. 2006; Bradshaw et al. 2009). It is unclear however, whether size of school is also associated with school climate, with research showing that teachers and pupils in larger schools often perceive higher rates of violence and negative behaviors compared to those in smaller schools, yet pupil self-reports of victimization do not differ significantly between larger and smaller schools (Klein and Cornell 2010). As well as wider environmental and school-related factors, a teacher's own classroom climate—the social, physical and emotional interactions between peers and between pupils and the teacher—can also strongly impact wellbeing and burnout (Harrison et al. 2025). A difficult classroom climate can result in strained relationships between teachers, pupils, parents and other school staff and can impact on the quality of teaching and learning as well as classroom norms and values (Aelterman et al. 2007; Cohen et al. 2009). Higher teacher-pupil conflict (creating a more challenging classroom climate) has been shown to predict an increase in teacher emotional exhaustion (Alamos et al. 2022); students being disrespectful or displaying unsociable behavior within the classroom are likely to increase emotional exhaustion, but also teachers' feelings of depersonalization and reduced personal accomplishment (Huk et al. 2019; Hastings and Bham 2003). A teacher's interactions and relationships with their pupils (creating a classroom climate) are some of the strongest predictors of their job satisfaction and wellbeing (Lopes and Oliveira 2020; Turner and Theilking 2019); one factor that can create a difficult classroom climate is peer-to-peer bullying (Roland and Galloway 2002). In bullying cases, the situation not only affects those children directly involved—the bullies and the victims—but it also impacts the other children in the class who hear or see these negative interactions (Polanin et al. 2012; Twemlow and Sacco 2011). Bullying involvement refers to anyone involved in a bullying situation, regardless of their role. Previous literature has identified six roles within a bullying situation: bully, victim, reinforcer (supports and encourages the bully), assistant (actively involved in the bullying), defender (supports and defends the victim), outsider (those who witness but do not intervene), with an additional category of bully-victim (an individual who both bullies others and is bullied themselves). This type of misbehavior by one or two in the classroom can alter the whole classroom climate, which can be challenging for the classroom teacher. This can require additional monitoring, workload and stricter classroom management for the classroom teacher, which can not only contribute to increased burnout (Madigan et al. 2023) but can also put pressure and strain on the social, physical and emotional interactions between the teacher and their pupils. In fact, bullying incidents between pupils have also been found to increase when teaching staff exhibit reduced collaboration and worsened leadership (Ertesvåg and Roland 2015; Roland and Galloway 2004). Then in a vicious cycle, the more intensely a teacher is feeling the strain of a negative classroom climate (e.g., having to manage multiple bullying incidences), the more likely they are to experience heightened feelings of burnout and reduced wellbeing (Alamos et al. 2022) and poorer classroom cohesion. Whereas, when a teacher can be proactive against bullying behaviors through feeling prepared and supported in their actions (Song et al. 2018) they can intervene and stop incidents quickly. In these cases of active intervening, it has been shown that bullying incidents are less frequent in classrooms (Azeredo et al. 2015; Låftman et al. 2017), and bullied pupils feel more comfortable to seek support from the teacher (Eliot et al. 2010). Higher rates of bullying within a classroom could therefore not only impact the pupils but could have a knock-on effect on teacher wellbeing and feelings of burnout, especially emotional exhaustion and professional efficacy.

1.4 | Current Study

This paper focused on data collected in early 2020, just before the school closure disruption caused by the COVID-19 pandemic, and data collected in 2021, as children returned to school. We consider the impact of this global school disruption on teacher wellbeing and burnout overall in over 120 schools across the UK, whilst considering potential associations between additional unique school characteristics, and levels of child-reported bullying involvement (victim and bully) within the classroom.

We asked the following questions:

1. Were there differences in teachers' feelings of burnout (exhaustion, cynicism, efficacy) before and after the school disruption period? (2020 vs. 2021)?
2. Were there differences in teachers' feelings of wellbeing before and after the school disruption period? (2020 vs. 2021)?

3. Are any of the differences observed in Q1 and Q2 associated with school-level deprivation, school size, class-level bullying or class-level victimization?

2 | Method

2.1 | Design

A longitudinal design was used with data taken from the Stand Together Trial, a randomized controlled trial (RCT) examining the effectiveness of an anti-bullying program, KiVa, in UK primary schools (Bowes et al. 2024; Clarkson et al. 2022) run between the academic years September 2021 and July 2022. However, for this study, we used data from time 1: T1) February–March 2020 and time 2: T2) April–June 2021. Due to pandemic lockdowns, participation was less in 2020 (see the Participants section below). Also, as it was not compulsory for teachers to complete burnout and wellbeing measures as part of the Stand Together Trial, these data are not a matched sample and instead uses a cross-sectional comparison of prevalence approach.

2.2 | Participants

The sample comprised data from over 120 primary schools across four geographic regions, three in England and one in Wales (UK). In 2020, data were collected from a total of 4724 children aged 6–11 (years 4–6) and 306 teachers before the COVID-19 pandemic lockdown halted data collection. In 2021, data were collected from a total of 11,111 children aged 6–11 and 748 teachers.

2.3 | Measures

2.3.1 | School Size

School size was based on the number of children registered in years 3–5 (ages 7–10) in 2020 per school. In 2020, schools in this study had an average of 178.03 pupils (SD = 100.33) and a range of 42–366 pupils. Data were used as a continuous variable during our statistical analyses.

2.3.2 | School-Level Disadvantage

This study classified school-level disadvantage as the percentage of children in each school eligible to receive free school meals (e-FSM). E-FSM is an indicator of socio-economic status: children whose parents are in receipt of certain income-determined government benefits are eligible to receive a free meal at school. At the time of this study, the English average of e-FSM in primary schools was 17.3% and the Welsh average of e-FSM in primary schools was 18.8%. The average of e-FSM in this study's schools was 19.29%. Data were used as a continuous variable during our statistical analyses.

2.3.3 | Teacher Wellbeing

The 14-item Warwick-Edinburgh Mental Well-being Scale (WEMWBS, Stewart-Brown and Janmohamed 2008) was administered as a measure of teacher mental wellbeing and psychological functioning (i.e., feeling good and functioning well). Example items include "I have been feeling optimistic about the future" and "I've been feeling cheerful," and each item was scored on a 5-point Likert scale from 1 (none of the time) to 5 (all of the time). Data were used as a continuous variable during our statistical analyses, whereby a higher score indicates a better level of wellbeing. The measure is well-established and has undergone much psychometric testing including factor analysis, construct validity, rasch analysis and response bias (Stewart-Brown and Janmohamed 2008). McDonald's Omega reliability for this study was found to be 0.93 at 2020 and 0.92 at 2021.

2.3.4 | Teacher Burnout

The 16-item Maslach Burnout Inventory – General Scale (MBI-GS; Maslach et al. 2018) was administered as a measure of teaching staff burnout, split into a three-dimensional perspective on burnout: (1) five items on exhaustion, (2) five items on cynicism, and (3) six items on professional efficacy. Exhaustion in the MBI-GS relates to feelings of exhaustion overall without explicit reference to interactions with other people. An example item is "I feel emotionally drained from my work." Cynicism relates to feelings of indifference or distance to work. An example item is "I have become less enthusiastic about my work." Professional efficacy relates to feelings of effectiveness at work and feelings of past and present accomplishment. An example is "I can effectively solve the problems that arise in my work." Each item was scored on an anchored 7-point Likert scale from 0 (never) to 6 (every day). Data were used as continuous variables during our statistical analyses, where higher scores on exhaustion and cynicism indicate higher degrees of burnout, and lower scores on professional efficacy indicate higher degrees of burnout. The measure is well-established and has undergone much psychometric testing including regression and factor analysis and multicultural and multi-occupational degree of differentiation (Maslach et al. 2018). McDonald's Omega reliability for this study for exhaustion, cynicism, and professional efficacy was found to be 0.92 (2020) and 0.92 (2021), 0.86 (2020) and 0.87 (2021), and 0.84 (2020) and 0.86 (2021) respectively across all timepoints.

2.3.5 | Classroom-Level Bullying Perpetration and Victimization

The Olweus Bully/Victim Questionnaire (OBVQ, Olweus 2006) was administered as a measure of classroom level of bullying and victimization. A total of 22 questions were asked, but for this paper only the two global items to identify a victim or a bully were used (rather than considering all the ways in which someone may have bullied or been bullied): (1) an item to identify victimization: "How often have you been bullied at school in the past couple of months?" and (2) an item to identify bullying perpetration: "How often have you taken part in bullying another child at school in the past couple of months?" Each item was scored on a 5-point Likert scale from 0 (not at all) to 4 (several times a week). Dichotomous scores were generated for each participant for each item, for example to identify victimization categorization, those scoring 0-1 were categorized as 0 (I have not been bullied) and those scoring 2–4 were categorized as 1 (I have been bullied; Solberg and

Olweus 2003). These were then averaged for each classroom group resulting in two scores: a proportion victimization score for each classroom (between 0 and 1), and a proportion bullying perpetration score for each classroom (between 0 and 1). The OBVQ is well-established and has undergone much psychometric testing including factor analysis, reliability testing and multicultural differentiation (Gaete et al. 2021).

2.4 | Procedure

At both time points (T1) February–March 2020 and (T2) April–June 2021, teams of researchers attended the primary schools to collect data from the pupils and teachers. At each time, the Stand Together battery of measures was administered during one lesson of 45–60 min via electronic tablets to pupils who had not been opted-out by their parents/carers. The teaching staff were each given an envelope containing three paper-based questionnaires including the MBI-GS and WEMWBS and asked to complete and return their questionnaires if they consented to take part; teachers generally completed these within 2 weeks of their school's visit. No compensation was given to the teachers.

2.5 | Data Analysis

All analyses used R statistical software (R Core Team 2021) with the R packages "lme4," "robustlmm," "glmmTMB" (Brooks et al. 2017) and "Performance" (Lüdecke et al. 2021). Three level linear mixed models were used, Time (level 1) was nested within individual teacher or aggregated pupil response by teacher (level 2) and individual nested within school (level 3). The following covariates were included at level 2 (individual): proportion of bullying, proportion of victims, and at level 3 (school): school size, trial arm and school proportion of FSM. Linear mixed models (LMM) were used to analyze repeated measures data, and missingness observations at individual time points were accommodated under the missing at random assumption using robust maximum likelihood estimation. Given that outcome measure, teacher burnout (cynicism), was significantly skewed with floor effect and consisted of integer values, we used the generalized linear mixed model with Poisson family link function. This provided a much better fit to the data. Other outcomes after investigating model residuals did not suffer the same issue, so continue to use the standard gaussian LMM. Random intercept for school was included for completeness matching the data structure, but almost no variance was attributed to the effect. Collapsing the model to remove this random intercept made no difference to any model fit as expected. Longitudinal invariance testing was conducted to sequentially test: configural, weak, strong and strict invariance (Vandenberg and Lance 2000). With the exception of Teacher Burnout–Exhaustion, all outcome measures displayed strict invariance over time (Supporting Information S1: Table 2). The Teacher Burnout- exhaustion measure showed weak invariance, but showed a significant χ^2 difference test for strong invariance (factor loadings and intercepts are constrained to be equal across time).

For completeness, Little's MCAR test was also calculated: $\chi^2(338) = 1533$, $p < 0.001$. A known source of missingness occurred during data collection due to complications from COVID-19. Data for the Stand Together Trial were collected in 2020 from children in years 3–5 until the COVID-19 lockdown stopped the Trial. The Trial restarted in 2021, and data were again collected from children in years 3–5. However, in 2021, year 6 data was also collected from two of the four geographic regions. As the age covariate is included in the imputation model, we have an indicator of which children fall into this category—this qualifies as Missing-At-Random (MAR), thus maximum likelihood estimation should provide unbiased estimates. We included a missing data analysis using pooled estimates from multiple imputations on 20 datasets for completeness (following recommendations by Van Buuren 2018), and the analyzed results were pooled following the rules of Rubin (1996). Trace plots (Supporting Information S1: Figures 1 and 2) were also generated to assess convergence and pooled results included in supporting files for a comparison with the primary analysis (Supporting Information S1: Table 1).

3 | Results

3.1 | Demographics

All study demographics for 2020 and 2021 can be found in Table 1.

3.2 | School Disruption and Teacher Burnout and Wellbeing

Teacher burnout was split into three categories: (1) exhaustion, (2) cynicism, and (3) efficacy. From 2020 (pre-school

TABLE 1 | Means and standard deviations for time-varying predictors and outcomes at each wave of measurement.

	Time 1 (2020)		Time 2 (2021)	
Variable	**N**	**Mean (SD)**	**N**	**Mean (SD)**
Teacher wellbeing	306	50.28 (7.5)	438	46.11 (8.08)
Teacher burnout				
Exhaustion	296	13.89 (7.55)	428	15.21 (7.66)
Cynicism	295	7.65 (6.95)	425	8.82 (7.34)
Professional efficacy	294	27.68 (5.73)	426	27.16 (5.94)
Bullying	182	0.2 (0.18)	481	0.11 (0.09)
Victimization	184	0.58 (0.20)	481	0.42 (0.15)

TABLE 2 | Model estimates and SE for burnout and wellbeing.

	Teacher Wellbeing		Teacher Burnout				
Coefficient	**(WEMWBS) B (95% CI)**	**(WEMWBS) β (95% CI)**	**Exhaustion B (95% CI)**	**Exhaustion β (95% CI)**	**Cynicism IRR (95% CI)[a]**	**Professional efficacy B (95% CI)**	**Professional efficacy β (95% CI)**
Intercept	51.26 [48.00, 54.53]***	0.05 [−0.13, 0.23]	16.68 [13.32, 20.03]***	−0.0034 [−0.21, 0.20]	1.70 [1.28, 2.13]***	28.42 [25.97, 30.87]***	0.13 [−0.05, 0.31]
Time1-2	−3.00 [−5.06, −0.95]**	−0.38 [−0.65, −0.12]**	1.98 [−0.21, 4.18]	0.28 [−0.03, 0.59]	0.26 [0.02, 0.50]*	−2.05 [−3.76, −0.34]**	−0.37 [−0.68, −0.06]**
eFSM	−0.04 [−0.11, 0.03]	−0.07 [−0.20, 0.05]	−0.06 [−0.13, 0.01]	−0.13 [−0.27, 0.02]	−0.01 [−0.02, 0.00]	0.01 [−0.04, 0.06]	0.03 [−0.10, 0.16]
School Size	0.00 [−0.01, 0.01]	−0.02 [−0.15, 0.10]	0.00 [−0.01, 0.01]	0.01 [−0.13, 0.15]	0.00 [0.00, 0.00]	0.01 [0.00, 0.01]	0.07 [−0.06, 0.19]
Trial Arm	−0.18 [−2.17,1.80]	−0.02 [−0.28, 0.23]	−0.25 [−2.29, 1.80]	−0.03 [−0.32, 0.25]	0.04 [−0.24, 0.32]	−0.71 [−2.15, 0.73]	−0.13 [−0.39, 0.13]
Victim	−0.45 [−5.77, 4.86]	−0.01 [−0.13, 0.11]	0.71 [−4.86, 6.29]	0.02 [−0.12, 0.15]	0.54 [−0.08, 1.17]	−0.53 [−4.70, 3.64]	−0.02 [−0.14, 0.11]
Bully	−5.13 [−11.72, 1.45]	−0.08 [−0.19, 0.02]	4.18 [−2.72, 11.09]	0.07 [−0.05, 0.20]	0.35 [−0.36, 1.07]	−7.64 [−13.06, −2.21]**	−0.17 [−0.29, −0.05]**
Time 1-2 × Trial Arm	3.19 [0.71, 5.66]*	0.41 [0.09, 0.72]*	−1.36 [−3.99, 1.28]	−0.19 [−0.56, 0.18]	−0.12 [−0.37, 0.14]	2.06 [−0.12, 4.24]	0.37 [−0.02, 0.77]
Std. Dev (Intercept TID)	6.85		6.87		0.85 [0.73, 0.99]	4.27	
Std. Dev (Intercept SID)	0.00		0.00		0.31 [0.14, 0.69]	0.00	
Std. Dev (Observations)	3.49		3.67		—	3.33	
Num. Obs.	317		308		306	306	
RMSE	1.99		1.89		1.73	2.24	
Marginal R^2	0.125		0.075		0.024	0.095	
Conditional R^2	—		—		0.893	—	

Note: Three-level LMM with time at level 1, individual variables (proportion of bulling perpetration, and proportion of victimization) at level 2 and school-level variables (school size, eFSM, and trial arm) at level 3.
Abbreviations: eFSM, eligible to receive free school meals; CI, confidence interval; IRR, incident rate ratio; RMSE, Root mean square error.
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.
[a]Generalized Linear Mixed Model.

disruption) to 2021 (post-school disruption), we found a significant increase overall in teachers' feelings of cynicism (IRR = 0.26; $p < 0.05$, see Table 2), and a significant decrease overall in teachers' feelings of professional efficacy (B = −2.05 95% CI [−3.76, −0.34]; $p < 0.01$; d = −0.27 95% CI [−0.50, −0.05]). These findings could be owing to an increase in burnout due to the school disruption impact of COVID-19 lockdowns. However, there was no significant difference in teachers' feelings of exhaustion over this period.

We initially found a significant decrease overall in teacher wellbeing between 2020 (pre-school disruption) to 2021 (post-school disruption) (B = −3.00 95% CI [−5.06, −0.95]; $p < 0.01$; d = −0.33 95% CI [−0.55, −0.10]), indicating a potential negative impact of COVID-19 educational disruption on teachers.

3.3 | Burnout, Wellbeing and School Factors

Across the time points, we found no significant effect of school size or level of disadvantage on overall teacher wellbeing or burnout. However, classrooms experiencing the highest proportion of pupil bullying perpetration saw significantly lower levels of teacher professional efficacy (B = −7.64 95% CI [−13.06, −2.21]; $p < 0.01$; d = −0.32 95% CI [−0.55, −0.09]): higher levels of bullying in a class was associated with the teachers of those classes feeling less confident in their ability as a teacher. Interestingly though, the proportion of pupil victimization in a classroom had no significant association with either teachers' feelings of wellbeing or burnout.

4 | Discussion

There are three main findings from this work. Overall, teachers reported (1) higher levels of cynicism and decreased levels of professional efficacy, although showed stability in their exhaustion and (2) lower levels of wellbeing after the school disruption compared to before the school disruption. We found that (3) teachers in classrooms that experienced the highest proportion of pupil bullying perpetration—which perhaps affected overall classroom climate—were also found to have the lowest levels of professional efficacy.

4.1 | School Disruption

Research on the effects of school disruption on teachers is limited and typically focuses on practicality rather than person-centered wellbeing. In contrast, research on pupil impact often focuses on psychological changes and the risk and protective factors associated with outcomes of school disruption (Badger et al. 2024; Colao et al. 2020; Islam et al. 2016; Kousky 2016; O'brien 2020). In 2020, Kim and Asbury published a qualitative report on 24 teachers affected by COVID-19 which highlighted struggles (e.g., feelings of uncertainty), protective factors (e.g., good relationships) and proactive responses (e.g., wanting to 'find a way'). Our results expand on this literature by exploring teachers' perceived burnout and wellbeing before the school closures and after the schools reopening. In support of the results highlighted in Katsarou et al.'s systematic review, we also found that teachers worsened levels of burnout aspects (cynicism and professional efficacy) and worsened wellbeing (Katsarou et al. 2023) after the COVID-19 school closures. The finding is unsurprising, with many teachers having to navigate teaching online, new technology and novel methods of pupil engagement (Alsoud et al. 2021; Chaaban et al. 2021; Ida Fatimawati et al. 2022), yet it is interesting that even when educational disruption had begun to settle (schools had been reopened for approximately 3 months at T2 data collection), our findings suggest that overall, teachers' psychological responses to it had not. While it is likely that many school routines had not yet fully reverted to pre-pandemic standards, with continued distancing around school, staggered start and finish times, variable pupil and teacher attendance, and illness from COVID-19 still prevalent in society, our results suggest that overall teachers stress and burnout were still higher than prior to school closures. This differs from literature on pupils, which shows that their return to school, seeing peers and receiving additional social support, saw their psychological health improved (see Badger et al. 2024). What is most interesting, and warrants further exploration, however, is that although teachers' cynicism increased and their professional efficacy decreased after the educational disruption, their levels of exhaustion (the third element of burnout) remained the same. It is possible that this speaks to the teaching profession in general with its increasing workloads, workplace stress (Department for Education, 2023; UNESCO 2024), imbalance of demand versus resources available (Madigan et al. 2023) all leading to feelings of being overextended, exhausted and strained regardless of the educational disruption of the pandemic. This established exhaustion is likely to be contributing to the high attrition from the teaching profession (OECD 2019), but could also be considered in relation to additional factors such as pupil age distribution, class size and teacher turnover.

4.2 | School Deprivation, Classroom Bullying and Teacher Wellbeing

At the classroom-level, the proportion of pupils identifying as bully perpetrators was significantly associated with lower perceptions of professional efficacy in teaching ability overall. Teachers often report a lack of confidence in identifying and intervening in pupil bullying situations (Ahtola et al. 2012), and this study highlights the possibility that some teachers are starting on the back foot regarding their professional efficacy, which can result in increased burnout. It should be noted, however, that in our study we did not see the same result on teachers' professional efficacy, with proportion of pupils identifying as victims. This is perhaps surprising as it might be assumed that supporting children with emotional distress may be equally or more draining on a teacher and the classroom climate. Although the reason for this result is unclear, we do know that bully perpetrators tend to have more social dominance in a group (Hawley 1999); they often have more friends than their victimized peers, more involvement in school activities and more externally visible behavior (Demaray and Malecki 2003; Demanet and van Houtte 2012; Salmivalli 2010). Their presence therefore may have more of a demand on teacher support and attention compared to victims who are often quieter and socially isolated (Veenstra et al. 2005). It has been shown that victims often perceive less teacher support and

attention compared to their peers (Demanet and van Houtte 2012). It is also possible that supporting victimized children requires less cognitive demand: set procedures are in place. Yet the motivation and strategy of a child to bully another pupil is not always clear, thus requiring more cognitive consideration and perhaps more self-questioning when the bullying continues. Another interesting possibility for these findings, although impossible to confirm from the cross-sectional methodology used in this study, is the idea of a potential downward spiral effect (Aloe et al. 2014): when teachers experience increased burnout (including reduced professional efficacy), this can result in increased misbehavior amongst pupils in that class, which could, of course, involve bullying perpetration. This increase in pupil misbehavior can further reduce teachers' feelings of professional efficacy, and thus the spiral continues. However, further investigation is required to more clearly understand this finding.

Interestingly, previous literature has shown that pupils' perceived economic status influences their mental health and wellbeing. Pupils that perceive themselves as poorer, experience stronger negative emotions (Piera Pi-Sunyer et al. 2022), and schools with higher levels of deprivation see higher levels of pupil sadness (Badger et al. 2023). However, this did not seem to be the case for teachers in disadvantaged schools. The reduction in wellbeing and the increase in burnout seen in this study did not differ by level of school disadvantage. It would be interesting in future, to see whether other factors at the teacher-level, such as colleague support during an educational disruption, are more influential on staff wellbeing than factors at the school level, such as the number of pupils listed as eFSM and school size.

4.3 | Limitations

This research formed part of a UK randomized controlled trial with data collected from a large sample of primary schools. The sample size and range of schools was excellent, however, there are six limitations of which to be aware. First, our sample and testing months changed over the two times points. The sample is much smaller in 2020 due to the sudden school closures associated with the COVID-19 pandemic and we had to collect data later in the academic year at T2 (February–March 2020 vs. April–June 2021) due to the school reopening dates. It should be noted therefore that beyond any pandemic disruption and without the possibility of a control group who did not go through the pandemic, we must note that differences may also have been linked to seasonal variation and academic expectations due to the time of year, as well as potential regression artifacts. Second, pupils were not always with the same teacher for both years. It is probable that the occurrence of bullying in a classroom would differ depending on the pupils in the class as well as the class teacher leading the class. Accordingly, the analysis across time points cannot be a directly matched measurement at the classroom level. It is also important to note that specific classroom characteristics and classroom climate were not accounted for beyond bullying. For many primary school classes, the whole class of pupils remain together as they progress throughout the school, but for some classes, pupils move classes or there is a higher rate of pupil turnover. These could cause important differences for the classroom-level variables and interpretation. Third, as it was not compulsory, not all class teachers involved in the trial completed the burnout and wellbeing measures, and in some cases, the measures were completed at one timepoint and not the other. It possible that, especially during the stressful period of reopening schools (2021), we experienced selection bias. As it was not compulsory, it is possible that only those feeling the least burnout out, or with better overall wellbeing, felt able to complete these questionnaires. However, it is also possible that those with reduced wellbeing and increased burnout, knowing the topic of the questionnaires, were more likely to want to complete the questionnaires in an attempt to voice their and other teachers' struggles anonymously. Again, this reinforces the need for general comparison rather than matched measurements. Fourth, at the 2021 timepoint, pupils had only been in school for 1–3 months after the final UK pandemic lockdown and associated school closures, which could have resulted in inaccuracies (e.g., under-reporting or a change in bullying dynamic). As with the second limitation, this difference between time points could also reflect changes beyond the school closures. In this instance, typical dynamics of the classrooms may not have been established or determined which could impact our interpretations in relation to classroom climate and teacher burnout and wellbeing. Fifth, children self-reported on their bullying involvement, which could have resulted in recall error or misreporting due to fear of getting into trouble. Finally, because the disruption of school closures and associated online teaching were unexpected at the onset of the study, we were unable to measure which aspects of disruption contributed most significantly to teacher burnout and thus can only draw on the widely recognized challenges for teaching during periods of disruption as captured broadly within the corpus of literature on the topic (see e.g., Arar et al. 2022; Arnold et al. 2021; Kim and Asbury 2020; Kim et al. 2023; Kim et al. 2021; Kim et al. 2022).

5 | Conclusion

Most research on teacher experiences during periods of educational disruption have focused on the practical challenges that teachers might face. Yet in contrast, most pupil-focussed research during periods of educational disruption has focused on the pupils' psychological wellbeing or educational attainment. Due to increasing interest in, and recognition of, the psychological wellbeing of teachers, this study considered the wellbeing and burnout levels overall of teachers during periods of educational disruption. The results offer a better understanding of the association between teacher wellbeing, burnout, and school- and class-level factors during a period of disruption. Our hope is that these findings can encourage schools to incorporate measures and interventions that support teacher wellbeing (Hobson and Maxwell 2017; Jacobsson et al. 2016), both during periods of disruption, as well as during the unsettled period after the disruption. Moreover, this study suggests that particular support may be required for teachers who have higher proportions of bullying perpetrators in their class or for those whose increased burnout leads to worsened classroom management, potentially reinforcing bully perpetration amongst pupils which might in turn further increase the burnout of teachers. To limit increasing teacher attrition due to

reduced wellbeing and increased burnout, we suggest that a school support network and program that equips schools to address the wellbeing needs for teaching staff could be developed.

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Ethics Statement

Ethical approval was granted by Bangor University School of Psychology Ethics and Research Committee: reference number 2019-16592.

Data Availability Statement

British Educational Research Journal (BERJ). The de-identified data that support the findings of this study are available from the corresponding author upon reasonable request.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.
Supporting File: pits70170-sup-0001-Supplementary_Materials_March_2026.docx.