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Exploring the impact of Incredible Years Teacher Classroom Management training on teacher psychological outcomes

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ABSTRACT

Teacher wellbeing is an important prerequisite for promoting student wellbeing, yet there is limited research exploring the potentiality of classroom management training for enhancing teacher psychological outcomes. This study used a pragmatic, pre-experimental design to evaluate a psychologist-led 6-month Incredible Years Teacher Classroom Management programme with 368 Irish primary teachers using well-validated measures of self-efficacy (*Teacher Sense of Efficacy Scale-Long Version*), wellbeing (*Everyday Feelings Questionnaire*) and burnout (*Maslach Burnout Inventory Educators Survey*). Mixed ANOVAs revealed significant improvements in wellbeing ($p < .001$, $\eta_p^2 = .08$), emotional exhaustion ($p = .01$, $\eta_p^2 = .02$), personal accomplishment ($p < .001$, $\eta_p^2 = .07$), and self-efficacy ($p < .001$, $\eta_p^2 = .30$) among participants. Whilst results must be interpreted cautiously, this study is positioned as being suggestive of psychological benefits for teachers accruing from evidence-based classroom management training.

KEYWORDS

Classroom management; teacher training; IY TCM; teacher wellbeing; teacher self-efficacy

Introduction

Empirical and theoretical background

Internationally, student wellbeing has become a progressively more important focus of education (O'Reilly et al., 2018); a commitment which is reflected within the Irish school context in the "Wellbeing Policy Statement and Framework for Practice" (DES, 2019). There are various routes to promotion of student wellbeing in schools, ranging from implementation of universal social-emotional learning and mental health programmes (for reviews, see Corcoran et al., 2018; Durlak et al., 2011; Mackenzie & Williams, 2018; Taylor et al., 2017), to more informal organic approaches based on the cultivation of positive social-emotional classroom climates (Cadima et al., 2010; McGrath & Van Bergen, 2015; Sabol & Pianta, 2012). However, research evidence indicates that an important factor in supporting social-emotional development and positive mental health among students is teacher wellbeing (for example, Domitrovich et al., 2016; Han & Weiss, 2005; Herman et al., 2018; Jennings & Greenberg, 2009; Spilt et al., 2011), which is vulnerable to increasingly diffuse and pervasive stressors within the profession (Eddy et al., 2019;

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Jennings & Greenberg, 2009; Skaalvik & Skaalvik, 2018). Indeed, numerous UK and international studies have reported concerning levels of work-related stress in teachers across the educational continuum (for example, Darling-Hammond, 2010; Herman et al., 2018; Ingersoll et al., 2014; Johnson et al., 2005; Stansfeld et al., 2011; Vazquez-Cano & Holgueras-Gonzalez, 2019).

There is a paucity of rigorous empirical data on the prevalence of stress within the Irish primary teacher population, with the most recently published estimate of 45% prevalence dating back to 2011 (Darmody & Smyth, 2011). However, this figure may not adequately reflect the realities of present-day teaching in Ireland which has reportedly become more stressful, challenging and hectic due to perceptions of increased administrative demands, increased diversity in student needs, curriculum overload, and elevated expectations for solving societal problems (Morgan & Nic Craith, 2015; Scarry, 2019).

International evidence has indicated that among the wide range of school and classroom-level stressors commonly encountered by teachers, one of the most significant is student challenging behaviour, due to its association, at chronic levels, with teacher stress and burnout, and potentially with premature departure from the profession (Chang, 2013; Friedman, 2006; Kokkinos, 2007; McCarthy et al., 2014; Prilleltensky et al., 2016; Tsouloupas et al., 2010). Burnout, which does not seem to be particular to any one stage of teacher professional development (Dicke et al., 2015), is traditionally understood as a work-related syndrome characterised by emotional exhaustion, depersonalisation and reduced personal accomplishment (Maslach & Jackson, 1986; Maslach et al., 2008).

Theoretical links between student challenging behaviour and teacher burnout originally gained prominence through the Prosocial Classroom Model, devised by Jennings and Greenberg (2009). This model proposed a "burnout cascade" whereby difficulties with classroom management, including teacher use of reactive and punitive behaviour management strategies, contribute to a sub-optimal classroom climate, decreased levels of teacher self-efficacy and wellbeing, and an increased risk of teacher burnout (Jennings & Greenberg, 2009). However, stress and burnout are not inevitable consequences of chronic exposure to stressors for teachers, as there exists an array of protective factors that operate at personal, interpersonal and organisational levels of the school ecology (Prilleltensky et al., 2016).

One personal protective factor for teachers that has received considerable research attention over the past 40 years is self-efficacy (Zee & Koomen, 2016). Teacher self-efficacy, which is grounded in Bandura's Social Cognitive Theory (Bandura, 1977, 1986, 1997), is defined as self-referent beliefs in the ability to plan, organise and execute specific teaching tasks (Skaalvik & Skaalvik, 2010). Even a selective review of past investigations of the correlates of teacher self-efficacy is beyond the scope of the present paper, and thus, the authors refer to the findings of a relatively recent systematic review of 165 heterogenous studies conducted by Zee and Koomen (2016). This review concluded that, irrespective of grade level or geographical context, there is consistent and robust evidence of significant and meaningful associations among teacher self-efficacy and important teacher outcomes including: global and dimension-specific burnout; positive classroom management practices (that is, use of effective, proactive, student-centred, inclusive strategies); positive student-teacher relationships; job satisfaction; work relationship satisfaction; and organisational commitment (Zee & Koomen, 2016).

Despite recent correlational exploration of the complex interactions among teacher self-efficacy, student challenging behaviour, and teacher wellbeing (for example, Dicke et al., 2014), surprisingly limited research attention (with the exceptions of Domitrovich et al., 2016; Gaudreau et al., 2013; Sharp & Forman, 1985) has been focused on the potential impact of training in classroom management on teacher psychological outcomes. The significance of training in classroom management as a means of increasing teacher wellbeing was implied in the Prosocial Classroom Model, proposed by Jennings and Greenberg (2009), which posited that effective classroom management not only increases positive social, emotional and academic outcomes for students, but also enhances teacher wellbeing and social-emotional competence.

One of the most promising of the relatively small number of evidence-based universal teacher-focused classroom management training programmes (Freiberg & Lapointe, 2006; Whear et al., 2013) is the Incredible Years Teacher Classroom Management programme (IY TCM; Webster-Stratton, 1994), which is one element of a suite of parent, teacher, and child programmes developed for the treatment and prevention of conduct problems, and the promotion of social competence and emotional regulation in children up to the age of 12 years. IY TCM uses a relatively brief, group-based methodology, involving discussions, role-plays and video vignettes, with the aim of helping teachers to: enhance their classroom management skills (especially through the development of student behaviour plans); improve parent- and pupil-relationships; and promote pupils' social-emotional regulation and problem-solving skills (Webster-Stratton, 1994). In the current emergency COVID-19 pandemic context, this programme has particular relevance for supporting teachers' and pupils' transitions back to school following the re-opening of school buildings. IY TCM training provides teachers with a framework for rebuilding relationships, re-establishing classroom management practices, and incorporating new routines and structures to buffer against the uncertainties of COVID-19. In particular, the emphasis in IY TCM on structure and routine (safety), self-regulation of emotion (calming), problem-solving (self-efficacy), relationship building (connection) and positive messaging/prediction (hope) aligns well with the key principles of Hobfoll et al. (2007) for mass trauma response and intervention that underpin the national emergency psychosocial response in Ireland. The IY TCM training is delivered by two trained facilitators for 1 day per month over a 6-month period, with the month-long between-session interval providing teachers with an opportunity to implement the taught classroom management strategies in their own distinctive school contexts.

There have been several independent evaluations of IY TCM as a stand-alone intervention in primary schools in different educational jurisdictions including New Zealand (Fergusson et al., 2013), Norway (Aasheim et al., 2018; Aasheim et al., 2018), the US (Murray et al., 2018; Reinke et al., 2018; Thompson et al., 2017), the UK (Allen et al., 2019; Ford et al., 2019; Hayes et al., 2020; Hutchings et al., 2013), and to a lesser extent, Ireland, where the existing published research has been limited to one randomised control trial (RCT) (and associated preliminary and follow-up studies) involving 22 primary schools, seven of which had designated disadvantaged status (Hickey et al., 2017; Hyland, 2014; Leckey et al., 2016; McGilloway et al., 2011).

In the main, previous investigations have utilised a variety of designs, ranging from pre-experimental pre-post single-group designs, to quasi-experimental pre-post comparison group designs to cluster RCTs, with attendant implications for the validity of causal

interpretations. International studies have reported supportive findings for the IY TCM programme for an impressive array of outcome variables including: teacher programme acceptability and satisfaction (Fergusson et al., 2013; Murray et al., 2018); student off-task, non-compliant and disruptive behaviour (Ford et al., 2019; Hutchings et al., 2013); student social competence, prosocial behaviour, and emotional regulation (Aasheim et al., 2018; Ford et al., 2019; Reinke et al., 2018); classroom climate (Murray et al., 2018); teacher attitudes towards, and use of, positive behaviour management strategies (Allen et al., 2019; Fergusson et al., 2013); student–teacher relationships (Aasheim et al., 2018; Hutchings et al., 2013); and home-school collaboration (Aasheim et al., 2018; Thompson et al., 2017).

However, a number of past investigations failed to find consistent beneficial effects of the training across all assessed outcomes, all assessed time-points, or all pupils exposed to the programme (for example, Aasheim et al., 2018; Ford et al., 2019; Hickey et al., 2017; Kirkhaug et al., 2016; Murray et al., 2018; Reinke et al., 2018). These observations align with the conclusion of Nye et al. (2019), in a meta-analysis of nine mixed-methods RCTs, that the programme has been linked to increases in prosocial behaviour and reductions in behaviour difficulties for all children, but significant reductions in clinical conduct problems only for high-risk children. A further interesting conclusion of the Nye et al. (2019) review was that qualitative studies of stand-alone IY TCM interventions have uncovered wider benefits than would be anticipated on the basis of the programme's logic model; namely, positive changes in teaching philosophies, and increases in perceptions of professional knowledge, wellbeing, and control over ability to manage challenging behaviour.

A lack of an apriori-determined focus on teacher psychological outcomes, similar to that seen in previous research investigating other classroom management training programmes (Dicke et al., 2015; Gaudreau et al., 2013), is evident in the literature pertaining to the standalone IY TCM programme. However, one exception is the large-scale cluster RCT Supporting Teachers and Children (STARs) trial in the UK (Allen et al., 2019; Ford et al., 2019; Hayes et al., 2020), which, among a myriad of other teacher- and child-related outcomes, examined the impact of IY TCM training on self-efficacy, work-related stress and general wellbeing among teachers from 80 primary schools. Results indicated that the programme did not reduce teacher burnout or improve teacher self-efficacy or wellbeing, contrary to the findings of significant increases in teacher self-efficacy in a preceding IY TCM feasibility study conducted by the same research team (Marlow et al., 2015). Explanations advanced by the authors for the divergent findings for teacher psychological outcomes included an absence of a common measure of teacher self-efficacy across the two studies; a small sample size; and a data collection time interval (2-month post-training) which may not have been sufficiently long for the "burnout cascade" to be reduced (Ford et al., 2019; Hayes et al., 2020).

The current study

It has been observed that very limited research attention has been focused on the potential impact of evidence-based classroom management training on teacher psychological outcomes, despite theoretical (for example, Jennings & Greenberg, 2009) and empirically established linkages (Chang, 2013; Zee & Koomen, 2016) between student

challenging behaviour, teacher burnout and teacher self-efficacy. Furthermore, since teacher self-efficacy and wellbeing are likely to influence intervention implementation and sustainability (Aarons et al., 2009; Larson et al., 2018), there has been a call for investigations of school-based interventions to not only examine student outcomes but also to explore the impact on the individuals who will be implementing the intervention in their own educational contexts (Domitrovich et al., 2016). Accordingly, this study was conducted to examine whether the stand-alone IY TCM intervention would be associated with significant changes in teacher psychological outcomes in a sample of Irish primary school teachers.

In line with the propositions of the Prosocial Classroom Model (Jennings & Greenberg, 2009), and informed by the findings of previous correlational studies, taking cognisance of the recommendations from implementation science (for example, Moir, 2018), a number of hypotheses were formulated for investigation. Specifically, it was hypothesised that: 1) levels of teacher self-efficacy would increase for participants who received IY TCM training from baseline to post-intervention periods; 2) levels of self-reported wellbeing and burnout would improve for participants from baseline to post-intervention periods; and 3) the effects of IY TCM would be moderated by the significant contextual factors of school status and teacher type.

Methodology

Study design

The current evaluation used a quantitative pre-experimental methodology involving a pre-post single group design to examine the real-world effectiveness of the IY TCM programme for improving teacher psychological outcomes (that is, teacher self-efficacy, teacher well-being, and teacher burnout) in Irish primary schools. A more preferable (for reasons of validity of causal interpretations) cluster RCT was not possible due to the fact that the intervention schools had been selected for training prior to the research as part of the Phase 2 geographical roll-out of the IY TCM programme in Irish primary schools by the National Educational Psychological Service (NEPS). This roll-out formed part of the Action Plan for Education 2016–19 (DES, 2017), targeting schools in the DEIS (Delivering Equality of Opportunity in Schools) School Support Programme. DEIS schools are those with the largest pupil cohorts at risk for educational disadvantage. A post-hoc power analysis was conducted using Gpower (Erdfelder et al., 1996) to examine the achieved power of the study (using mixed Analysis of Variance; ANOVA) based on the chosen significance level ($\alpha = .05$), final sample size ($N = 368$) and observed effect sizes. This analysis returned an acceptable achieved power of 0.80.

Participants

Purposive sampling involved the distribution of an invitation letter, information sheet and consent form to primary teachers attending a number of IY TCM training programmes (22 programmes) delivered by NEPS in Ireland between October 2018 and June 2019. The final sample comprised 368 primary teachers, the majority of whom were class teachers (79.6%), followed by special education teachers (SETs) (19.3%). Participants' teaching experience

ranged from one to 36 years, with a median of nine years. There was very considerable variance in the school class profile of the participants, but the largest clusters were teachers of Junior Infants classes (that is, children typically between the ages of four and six) [18.6%], and teachers of Senior Infants classes (that is, children typically between the ages of five and seven) [14.9%]. The majority of the participating teachers were from urban DEIS schools (58.3%). Mean attendance at IY TCM training was 5.75 (*SD* = 0.46) sessions out of a maximum of six, with the minimum reported attendance being four sessions.

Materials

Teacher self-efficacy. Teacher self-efficacy was measured using the *Teacher Sense of Efficacy Scale-Long Version* (TSES-L; Tschannen-Moran & Woolfolk Hoy, 2001) which is comprised of three subscales measuring efficacy in instructional strategies, efficacy in classroom management, and efficacy in student engagement (with constituent items being rated on a 9-point scale). Mean scores are calculated for each subscale and for the total scale, with higher scores indicating higher levels of teacher self-efficacy. Research involving both the 12-item and the 24-item versions of the scale has reported evidence of a unified and stable factor structure, good construct validity, and satisfactory levels of internal consistency reliability across different educational contexts (Duffin et al., 2012; Tschannen-Moran & Woolfolk Hoy, 2001, 2007). In this study, internal-consistency reliabilities, as indexed by Cronbach's alpha coefficient (α), of 0.88 for the efficacy in instructional strategies subscale, 0.84 for the efficacy in student engagement subscale, and 0.89 for the efficacy in classroom management subscale were found, all of which correspond with the reliabilities reported by the scale developers in 2001 (that is, 0.87, 0.91, and 0.90, respectively).

Teacher wellbeing. Teacher wellbeing was measured using the *Everyday Feelings Questionnaire* (EFQ; Uher & Goodman, 2010); a 10-item self-report measure, containing an equal number of positively and negatively worded questions, which examines general psychological wellbeing over the preceding 4 weeks. The EFQ has a maximum score of 40, with higher scores indicating higher levels of distress, and lower scores indicating higher levels of wellbeing (Uher & Goodman, 2010). The EFQ has been found to have good levels of internal consistency reliability (α = 0.89), good concurrent validity with established scales such as the General Health Questionnaire (Goldberg, 1978) [r = 0.74], and good criterion-related validity in studies involving both clinical and non-clinical populations (for example, Mann et al., 2013; Uher & Goodman, 2010). In this study, the EFQ was found to have good internal consistency reliability (α = 0.88).

Teacher burnout. Teacher burnout was measured using the *Maslach Burnout Inventory Educators Survey* (MBI-ES; Maslach & Jackson, 1986), which comprises 22 items that examine the three core aspects of emotional exhaustion (feelings of being emotionally over-extended and exhausted by one's work), depersonalisation (an unfeeling and impersonal response towards students), and personal accomplishment (feelings of competence and successful achievement in one's work with students). Participants respond to each of the items using a 7-point scale based on the frequency of experience of the stated

feelings (from "never" to "every day"), after which mean scores are calculated for each subscale.

High levels of burnout are reflected in high scores on the emotional exhaustion and depersonalisation subscales, and low scores on the personal accomplishment scale. In a meta-analysis of 45 empirical studies using the MBI-ES, Vargas Pecino et al. (2011) reported average internal consistency reliabilities of 0.88, 0.71 and 0.78 for the emotional exhaustion, depersonalisation and personal accomplishment subscales respectively. In addition, the postulated three-factor structure of the scale has been consistently supported (see Worley et al., 2008). In this study, alpha coefficients were in line with those reported by Vargas Pecino et al. (2011); namely, 0.89, 0.67 and 0.87 for exhaustion, depersonalisation and personal accomplishment, respectively.

Procedure

The six-day IY TCM training took place in education centres in Ireland between October 2018 and June 2019. All of the programmes were delivered by educational psychologists from NEPS who had attended 3-day group leader training in the IY TCM programme. Factors supporting the fidelity of the intervention included: the delivery of the programme by specialist, trained leaders guided by a highly structured manual and principle-driven approach; and the provision of coaching and consultation for group leaders (Webster-Stratton et al., 2011). A further supportive factor for intervention fidelity was high levels of teacher satisfaction with the overall programme, the training methods used during the workshops, and the specific teaching strategies outlined in the programme, as evidenced by highly positively skewed scores on items assessing acceptability and usefulness from the *Teacher Workshop Satisfaction Questionnaire* (WSQ) (Webster-Stratton & Reid, 2002). Qualitative data from the WSQ are to be reported in a separate paper. The participating teachers completed the battery of measures described above (taking approximately 20–25 minutes) in a whole-group context at the start of Day 1 of training (baseline time-point) and at the end of Day 6 of training (post-intervention time-point) which was, on average, 6 months after baseline testing.

Data analysis

Analysis of the outcome variables of baseline and post-intervention levels of wellbeing, emotional exhaustion, depersonalisation, personal accomplishment, total efficacy, efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management was conducted using IBM SPSS 25. For all outcome variables, a 2 x 2 × 2 Mixed ANOVA was conducted, where the within-subjects factor was time (baseline and post-intervention) and the between-subjects factors were school status (DEIS versus non-DEIS) and teacher type (mainstream versus SET). The latter two factors were examined as potential moderators of the effects of the intervention. In this paper, effect sizes are reported in the form of partial eta squared (η_p^2), which has been recommended to facilitate comparison of effect sizes across studies (Keppel, 1991 as cited in Lakens, 2013). Partial eta squared values of 0.01, 0.06, and 0.14 are commonly interpreted and reported as representing small, medium, and large effect sizes, respectively, based on the benchmarks of Cohen (1988).

Results

Hypothesis 1: Increases in levels of self-efficacy from baseline to post-intervention

Significant main effects of time were found for total efficacy, F (1, 309) = 132.27, p < .001, η_p^2 = .30, efficacy in student engagement, F (1, 337) = 143.49, p < .001, η_p^2 = .30, efficacy in instructional strategies, F (1, 334) = 93.07, p < .001, η_p^2 = .22, and efficacy in classroom management, F (1, 330) = 88.37, p < .001, η_p^2 = .21. These main effects, which were of large effect size, reflected significantly higher self-efficacy scores at post-intervention relative to baseline across all assessed indices of teacher self-efficacy (see Table 1).

Table 1. Mean scores (+*SD*) for wellbeing, burnout and self-efficacy outcome measures at baseline and post-intervention.

	Baseline		Post-Intervention	
Variable	*M*	*SD*	*M*	*SD*
Efficacy in student engagement	6.43	0.99	7.24	0.84
Efficacy in instructional practices	6.86	0.96	7.47	0.76
Efficacy in classroom management	6.82	1.18	7.54	0.79
Total efficacy	6.74	0.88	7.40	0.74
Wellbeing*	13.32	5.43	11.53	5.01
Emotional exhaustion	2.38	1.91	2.02	1.04
Depersonalisation	0.74	0.84	0.65	0.70
Personal accomplishment	4.67	0.79	4.89	0.71

*Low scores indicate higher levels of wellbeing on the *EFQ*.

Hypothesis 2: Improvements in levels of wellbeing and burnout from baseline to post-intervention

A significant main effect of time was found for wellbeing measured using the EFQ scale, F (1, 330) = 28.21, p < .001, η_p^2 = .08, reflecting a medium effect sized increase in scores from baseline to post-intervention periods (see Table 1). Significant main effects of time were also found for the burnout dimensions of emotional exhaustion, F (1, 334) = 6.56, p = .01, η_p^2 = .02, and personal accomplishment, F (1, 334) = 25.88, p < .001, η_p^2 = .07. As shown in Table 1, these main effects, which were small to medium-sized, reflected decreases in emotional exhaustion, and increases in personal accomplishment from baseline to post-intervention time-points. No significant main or interaction effects of time were found for the third burnout dimension of depersonalisation but there was a very slight trend of a decrease over time.

Hypothesis 3: Moderation of intervention effects by school status and teacher type

Moderator analyses were conducted to examine whether the effects of the IY TCM intervention on teacher psychological outcomes were moderated by the contextual factors of school status and teacher type. These analyses revealed significant interactions between time and school status for all assessed indices of self-efficacy, namely, total self-efficacy, F (1, 309) = 7.11 p = .01, η_p^2 = .02, efficacy

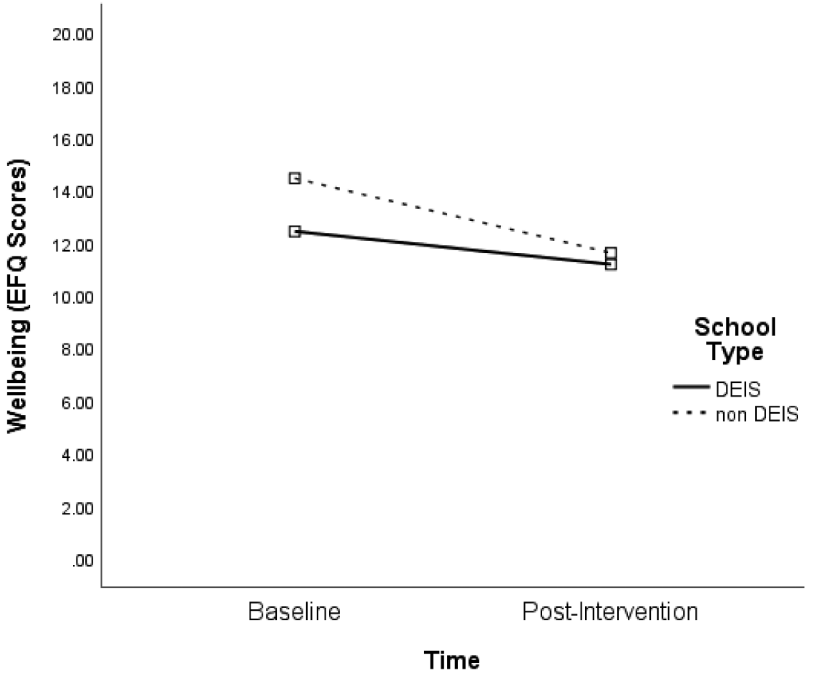

Figure 1. Two-way interaction between time and school status for wellbeing, as indexed by scores on the EFQ (lower scores indicate higher wellbeing).

in student engagement, F (1, 337) = 4.86, p = .03, η_p^2 = .01, efficacy in instructional strategies, F (1, 334) = 4.31, p = .04, η_p^2 = .01, and efficacy in classroom management, F (1, 330) = 5.26, p = .02, η_p^2 = .02. Tests of simple effects and inspections of interaction plots showed that these interactions, which were all of small effect size, reflected larger increases in teacher self-efficacy from baseline to post-intervention for teachers in non-DEIS schools relative to those in DEIS schools. No significant time x teacher type, or time x teacher type x school status interactions were found for the self-efficacy outcome variables.

In terms of moderation of intervention effects on wellbeing and burnout, a significant but small effect-sized interaction was found between time and school status for wellbeing, F (1, 330) = 4.22, p = .04, η_p^2 = .01. Tests of simple effects and inspection of the ANOVA interaction plot (see Figure 1) indicated that the largest increase in wellbeing over time (as indicated by a decrease in EFQ scores) was evident for teachers in non-DEIS schools.

In addition, a significant three-way interaction was found between time, teacher type and school status for wellbeing, F (1, 330) = 7.68, p = .006, η_p^2 = .02. Post-hoc tests and interaction plots (see Figure 2) indicated that the largest increase in wellbeing was observed among SETs in non-DEIS schools. However, it is important to note that these interactions were of small effect size. No significant two-way or three-way interactions were found for any of the assessed burnout dimensions.

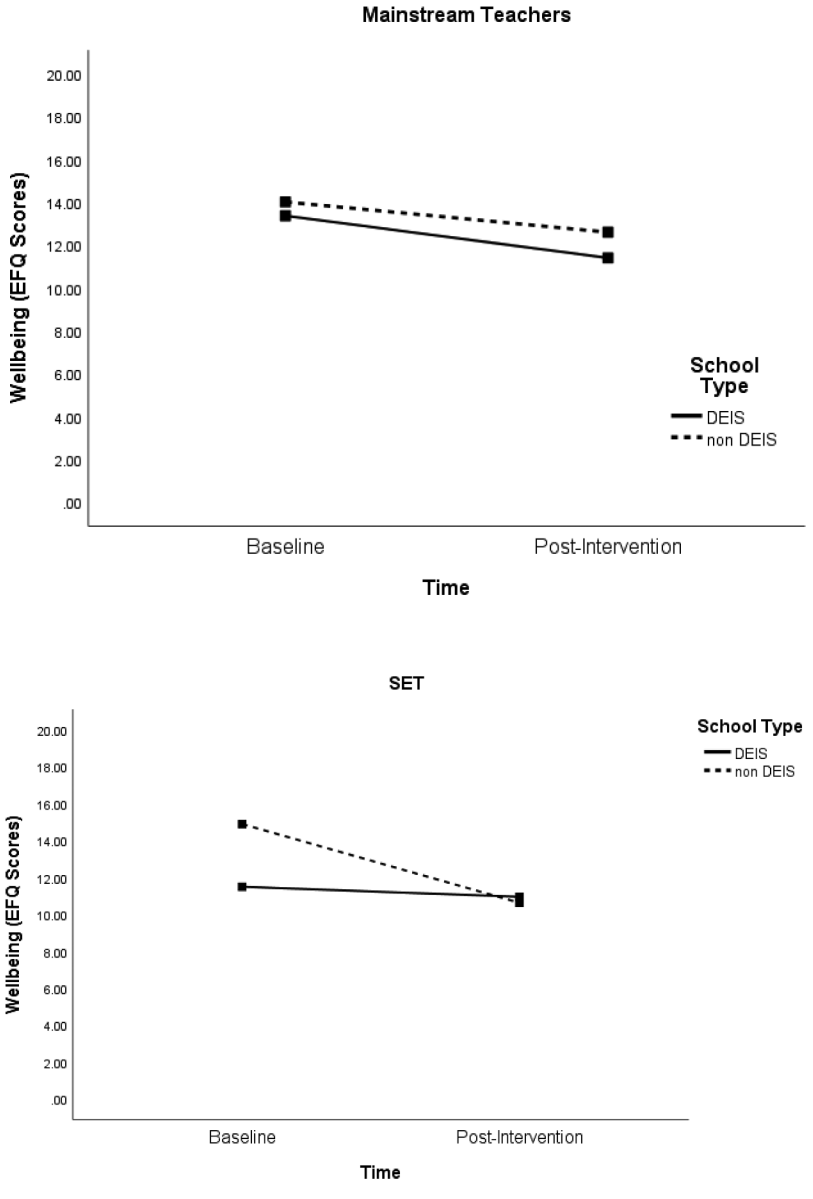

Figure 2. Plots for three-way interaction between time, school status and teacher type for wellbeing, as indexed by scores on the EFQ (lower scores indicate higher wellbeing).

Discussion

This study aimed to extend the limited extant research exploring the hypothetical impact of evidence-based classroom management training on psychological outcomes for teachers in contrast to the traditionally examined pupil-oriented outcomes. The choice of psychological outcomes for inclusion in the study was guided by both empirical (that is, robustly evidenced correlations) and practical (that is, real-world practitioner relevance)

considerations, resulting in a focus on wellbeing, self-efficacy and burnout, all of which were operationalised using well-validated self-report measures. The results of the current evaluation tentatively suggest that training in classroom management may be associated with positive psychological outcomes for teachers.

More specifically, significant increases, of large effect size, were found over the six-month baseline to post-training time period for all of the assessed indices of teacher self-efficacy; that is, total efficacy, self-efficacy for student engagement, self-efficacy for instructional strategies, and self-efficacy for classroom management. Whilst these findings must be interpreted in the light of threats to internal validity associated with single group pre-post designs including maturation, sensitisation due to pre-testing, selection bias, and demand characteristics (Cohen, 2018), they suggest that participation in IY TCM training may increase teachers' perceptions of their ability to engage students, manage student behaviour, and use effective pedagogical strategies. As noted earlier, teacher self-efficacy has received considerable research attention due to its potential role as a protective factor against stress resulting from pupil challenging behaviour (Prilleltensky et al., 2016). Invoking the central propositions of the cyclical model of teacher efficacy developed by Tschannen-Moran and Woolfolk Hoy (2001, 2007), one could hypothesise that the self-sustaining mechanism of action resulting from IY TCM is that enhanced self-efficacy beliefs lead to increased levels of effort and persistence in the face of challenge, resulting in enhancement of teaching performance, which in turn amplifies self-efficacy through positive mastery experiences. However, additional research facilitating the investigation of potential behavioural mediators would be needed to explore this hypothesis further.

Repeated measurements using the EFQ and MBI-ES revealed significant increases, of medium effect size, in wellbeing and personal accomplishment, and a significant but small reduction in emotional exhaustion from the baseline to the post-intervention period. It is speculated that the smaller magnitude of the observed effects for wellbeing and burnout relative to those for teacher self-efficacy is attributable to a measurement time-frame that was too proximal to allow for the detection of larger psychological effects. Despite this, and notwithstanding the limitations of a pre-experimental design, these results speak to the potentialities of IY TCM both for reducing teachers' feelings of being emotionally over-extended and exhausted by their job, and increasing feelings of competence and achievement in their work with students.

The results of this study conflict with the null findings of the STARs trial in relation to IY TCM impact on teacher-reported burnout and wellbeing (Ford et al., 2019; Hayes et al., 2020), perhaps due to differential measurement intervals and instruments. However, they are consistent with qualitative findings of decreases in personal emotional difficulties (McGilloway et al., 2011), and increases in positivity, confidence and perceived control (Ford et al., 2019) among teachers who participated in the training. The changes in wellbeing and burnout observed in this study, which are cautiously attributed to the intervention rather than to extraneous factors, can be parsed further using the lens of Jennings and Greenberg's (2009) Prosocial Classroom Model. Specifically, the mediating mechanisms underlying the observed effects could be as follows: training teachers in effective classroom management and in the promotion of positive teacher–student relationships (that is, the core aims of the IY TCM programme) enables them to more effectively deal with student disruptive behaviour, leading to a more positive classroom

climate, with consequent benefits for their own wellbeing, in addition to the social, emotional and academic functioning of their students.

On a practical level, training in the IY TCM programme could have the potential to improve both child and teacher mental health and wellbeing in line with the objectives of the "Wellbeing Policy Statement and Framework for Practice" in Irish schools (DES, 2019), in addition to supporting teachers in promoting safety, calming, self-efficacy, connection and hope (Hobfoll et al., 2007) in the COVID-19 school context. However, as was previously signalled, further research incorporating behavioural indicators (ideally measured using structured and objective observations by trained observers) would be necessary to interrogate these putative mediating pathways in a more purposeful and critical way. In contrast to the findings for the burnout indices of emotional exhaustion and personal accomplishment, no change was observed over time for depersonalisation. This aligns with previous reports of differential patterning of burnout indices as a function of gender and school context. For example, in a study of French teachers, Vercambre et al. (2009) found that female teachers are more susceptible to high emotional exhaustion and reduced personal accomplishment, whereas male teachers are more susceptible to high depersonalisation; and that primary school teachers are more susceptible to high emotional exhaustion, but less susceptible to high depersonalisation and reduced personal accomplishment than their second-level counterparts.

A number of interesting moderator effects emerged in this study. Firstly, it was found that increases in all efficacy outcome variables were larger for teachers in non-DEIS schools than in DEIS schools. Although these effects were small in magnitude, they provisionally suggest that IY TCM may result in greater benefits through self-efficacy gains for teachers working in non-DEIS relative to DEIS schools. As explanation, one could possibly look to historic funding patterns for school initiatives, including additional teacher training/professional development in DEIS schools (for example, DEIS Action Plan, 2017). Additional observed moderator effects included larger improvements in wellbeing over the training period for teachers in non-DEIS schools compared to DEIS schools, and most notably for SETs in non-DEIS schools. Once again, these findings may notionally be grounded in amplified programme effects for educators who may have experienced more limited access to continuous professional development (CPD) in positive behaviour support. SETs in non-DEIS schools are responsible for supporting the needs of an increasing number of children with social, emotional and/or behavioural difficulties (McCoy et al., 2014). In considering the challenging role of the modern-day SET within the Irish primary school context, it is most encouraging that the IY TCM programme could have the potential to improve levels of wellbeing, even with a relatively small input of six training sessions. At the very least, the current findings suggest preliminary patterns that warrant further apriori-planned exploration involving larger and more equal numbers within school and teacher sub-groups, combined with baseline measures of CPD history.

Limitations and recommendations for future research

The current evaluation was characterised by a number of methodological limitations; the most notable of which was the unavoidable use of a pre-experimental single group pre-post design which means that results must be interpreted with caution, giving due regard to extraneous variables (history, maturation, sensitisation resulting from pre-testing,

selection bias, demand characteristics, etc.) that cannot be unequivocally rejected (Cohen, 2018). Future research on the impact of classroom management training on teacher psychological outcomes would undoubtedly be strengthened by the use of a cluster RCT design or, at the very least, a quasi-experimental comparison group design.

This study also shares the weaknesses associated with the use of self-reports as the primary method of data collection. While the self-report method yielded detailed and relevant information about perceptions of self-efficacy, wellbeing and burnout (outcomes which have traditionally been measured using this approach) from a large number of respondents, it is possible that teacher responding was biased by expectancies of change, resulting in more positive ratings following participation in the intervention (McCambridge et al., 2012). Accordingly, it is recommended that future research adopts a multi-method approach where self-reports are supplemented by more objective measures of outcomes, such as structured observations by trained observers. Such a design would also be advantageous in facilitating the exploration of potentially mediating behavioural factors such as changes in the quality of teacher–student interactions in the classroom, and changes in the social-emotional climate of the classroom. A final limitation of this study was that it lacked a measure of implementation fidelity of the IY TCM programme. Whilst it is believed that the delivery of the programme by specialist trained leaders guided by a highly structured manual supported the fidelity of the intervention, it would be preferable for discrete data on this variable to be collected from the trainers in future research.

Implications for practice

Despite its methodological limitations, the results of the present evaluation contribute to the limited body of research examining the effects of IY TCM on teacher psychological outcomes using quantitative means (Hayes et al., 2020). Results tentatively suggest that the benefits of the programme may be more far-reaching than the traditionally assumed enhancement of classroom management skills; that is, the programme may also produce positive changes in self-efficacy and wellbeing for participating teachers. Educational psychologists have a key role to play in promoting teacher wellbeing, and are in an ideal position to support schools and teachers in this endeavour. The current findings extend the existing evidence-based justification for EP facilitation of IY TCM; that is, developing teacher skills in positive classroom management in order to enhance their capacity to improve outcomes for students with social, emotional and/or behavioural difficulties, while potentially contemporaneously increasing teachers' own wellbeing and sense of efficacy.

A further advantage of IY TCM is that enhancing the capacity of teachers to meet the needs of students with social, emotional and/or behavioural difficulties is also likely to reduce the numbers of students requiring more intensive, direct support from EPs. Finally, it is the authors' contention that, as well as delivering training to teachers and schools in IY TCM, EPs possess the requisite skills and expertise to work at a systemic/preventative level in schools in supporting the ongoing implementation and long-term sustainability of the IY TCM programme.

Conclusion

Given that teacher wellbeing is a significant prerequisite for promotion of student wellbeing, positive mental health, and social-emotional development, there is a clear need to evaluate the impact of school-based interventions on teacher psychological outcomes. It is proposed that this study contributes to the small body of existing research suggesting that psychological benefits for teachers may accrue from the provision of evidence-based classroom management training. More specifically, the findings of the current evaluation provisionally suggest that the IY TCM programme may have the potential to improve teachers' psychological wellbeing, increase their self-efficacy, and reduce experienced levels of burnout. Since IY TCM may produce benefits that are more extensive than originally assumed, the authors contend that supporting the sustainable implementation of IY TCM in primary schools would represent a judicious use of EPs' time. However, the limitations of the study, most notably its use of a pre-experimental design, mean that conclusions must remain tentative. Accordingly, further evaluation using a more methodologically rigorous design is recommended in order to facilitate a robust interrogation of the hypothesised impact of IY TCM on teacher psychological outcomes.

Disclosure statement

No potential conflict of interest was reported by the authors.

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