

## Behavioural Modification and Classroom Management Skills as Protective Factors against Mental Health Problems in Teachers: A Synthesis of Research

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### Abstract

Teaching schoolchildren is almost uniformly regarded as a particularly stressful occupation characterized by a range of mental health hazards. Consequently, clinical psychological research and practice has made intense efforts towards proliferating understanding, treatment and prevention of teacher burnout. Compared to other parameters, lack of classroom control is a major source of mental health problems in secondary school teachers. While the available literature on the relationship between classroom management and teacher burnout is intriguing, there is a need for a summary of the available findings. To encourage the progression of this research and the development of mental health intervention for teachers, the present review seeks to synthesize the relevant literature. As previous findings indicate, behaviour modification and classroom management skills enable teachers to prevent and modify student misbehavior and therefore contribute to both stress reduction and self-efficacy. Teachers without sufficient resources such as classroom management and behaviour modification skills are particularly vulnerable to experience stress when exposed to prolonged discipline problems. In an attempt to compensate their skill deficit, they are inclined to draw on punitive and coercive practices that exacerbate student misbehavior and maladaptive self-efficacy beliefs. Teachers might then experience severe emotional strain that again occupies information processing resources and impedes successful classroom management; the mental health risks originate from an escalating and self-perpetuating cycle of skill deficit, student misbehavior and ineffective control strategies. A threshold model is forwarded to account for the specific vulnerability towards mental health problems conferred by skill deficits. Overall, burnout interventions should address classroom management deficits and equip teachers with behavior modification skills.

**Keywords:** Burnout; Emotional exhaustion; Teacher mental health; Behaviour modification

### Introduction

#### Definition and assessment of burnout

Burnout can be defined as a psychological syndrome that refers to physical and psychological exhaustion, cynicism and inefficacy resulting from prolonged exposure to work-related stress [1]. Nevertheless, burnout is a highly contested condition among psychology researchers and has been frequently discredited as a fashionable diagnosis [2]. Although it has been argued that burnout does not constitute a valid clinical diagnosis in the DSM - IV, it is acknowledged in the ICD 10 as “burnout: state of vital exhaustion” within residual category Z 73 “problems related to life management difficulty” [2]. Previous research observed comorbidity of burnout with depression [3] and substance abuse [4]. Therefore, the investigation of factors contributing to burnout is paramount to clinical psychological research despite the abovementioned reservations.

Burnout has been inconsistently defined by different researchers, but the view of burnout as a multidimensional construct consisting of different symptoms receives widespread acceptance in the literature. One of the most widely used definitions originates from the work of Maslach [5] who identified three chief dimensions of burnout and defined it succinctly as “a three-dimensional syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that occurs among individuals who work with people in some helping capacity.” The model served as the theoretical foundation for the Maslach Burnout Inventory [6], an established psychometric instrument targeted towards the three dimensions of burnout. Despite possible methodological drawbacks [7], the MBI remains one of the

most frequently applied and well-developed instruments for the assessment of burnout [8,9] and has become standard measure for teacher burnout in the majority of studies [10-14].

#### Mental health problems and burnout in teachers

Teaching has been described as an occupation that is “emotionally taxing and potentially frustrating” [15]. In view of the professional responsibilities, administrative workload and interpersonal demands, teachers are presented with several occupational challenges that can induce and perpetuate burnout [16-18]. The exceptional level of occupational strain is reflected in premature retirement rates among teachers across countries. In Germany, every second teacher withdraws from the profession before reaching retirement age which has complex socio-economic, political and individual ramifications [19]. Premature job attrition due to health problems is frequently due to mental ill-health [13]. Indeed, psychosomatic or psychiatric manifestations are the major cause for teachers’ early retirement and account for 52% of the diagnoses [20]. Severe burnout symptoms have been observed in 25-35

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% of the teacher population [21]. Being exposed to a work environment characterized by high levels of noise, interpersonal demands, challenging social interactions, diverse extracurricular responsibilities, administrative duties and a relatively negative public image are well-documented contextual factors that provide explanations for the worrying number of teachers affected by burnout [10,22]. Adopting a translated version of the General Health Questionnaire 12 as a well-developed screening instrument for mental health problems, Bauer et al. [14] detected indicators for severe mental health problems in nearly 30% of the teacher sampled. The high rates of burnout among teachers have also been documented by Bauer et al. [20], who identified burnout in 32.5% and a severe degree of psychopathological symptoms in 20% of their sample of over 400 teachers. Also, burnout is associated with a range of psychosomatic disorders which have been identified as the major determinants of epidemic attrition rates in the teaching profession [20].

Moya-Albiol et al. [23] examined teachers' psycho physiological response patterns across an entire work day in relation to burnout severity. They employed a set of psychological and non-invasive physiopsychological measures – heart rate, blood pressure and salivary cortisol – to analyse alterations in the cardiovascular and endocrine system linked to burnout and other chronic stress conditions. Heart rate and blood pressure were measures of cardiovascular responses; salivary cortisol was an indicator of endocrine responses to stress. A total of sixty-four teachers from six schools took part in the study. The authors observed that burnout in teachers correlated with negative mood and perceived stress over the workday, substantiating the argument that continuous stress experience constitutes a crucial variable in the onset of burnout. Overall, burnout constitutes a serious and almost epidemic mental health hazard for teachers. Indeed, Bauer et al. [24] stresses that "being a teacher rather appears to be hard work... working in schools appears to have a comparable impact on health as working in a psychiatric hospital." The sources of burnout are manifold, but as the literature review provided in the following section indicates, it is no exaggeration to argue that classroom management (CM) problems are among the most challenging occupational parameters as reviewed in the following section.

### Antecedents and correlates of teacher burnout

The investigation of potential risk factors that induce and perpetuate burnout has invoked ample research interest into several personal and situational or contextual stressors [25]; their full appreciation would be outside the focus of the present work. In view of situational and contextual stressors, parameters such as workload, size of class, and subjects taught have been investigated with mixed results [13,26]. Extracurricular responsibilities, paperwork and lack of support are regarded as possible origins of burnout [10,27]. Regarding personal background variables, which have been termed interchangeably in the literature as socio-demographic or biographical factors, prior research exposed discrepant findings as illustrated by a meta-analysis [28]. With respect to gender, higher burnout symptom load has been found in male teachers when employing the MBI [27] or conversely by females when an alternative burnout measure was adopted [20,29] in some studies, whereas others concluded that burnout varied only minimally or not at all as a function of gender [10]. Similarly, some findings demonstrated that younger teachers are more susceptible to burnout [7,30,31] whereas contradictory data (Hughes) [32] or no differences [10,14,20,33-35] have been obtained by other researchers. Relationship status, typically associated with emotional support, was found to be a low to moderate burnout predictor in some studies [13,26] but not in others [34].

Among manifold several socio-demographic parameters, teaching experience has been most consistently linked with burnout in that novice and even preservice teachers displayed remarkable burnout levels [10,22,27,35,36]. Biographic variables are far from being unimportant, but data are highly inconsistent and if significant effects of background variables have been observed, they appear negligible [13,26,28], with the exception of teaching experience [10,34,37]. In contrast, a significant amount of recent research suggests that classroom management expertise (CME) represents a principal antecedent of burnout [13,18,26,29].

Classroom management refers to teachers' strategies for creating a sheltered and supportive learning environment. [38]. Kokkinos [18] relates CME to the provision of organisation and discipline in the classroom required for effective learning and instruction. Kayıkçı [39] observed that students' discipline problems and misconduct frequently result from insufficient CME. Traditionally, the assessment of CME relied almost exclusively on paper-and-pencil questionnaires and self-reports, but it has been argued that the situated cognition required for CME exceeds the capacity of paper-and-pencil tests. A small but growing line of research departed from traditional questionnaires and developed instruments that employ a paper-and-pencil format together with video vignettes displaying real classroom incidents [40]. As illustrated below, the valid assessment of actual rather than self-reported CME represents a crucial issue for clinical psychological research, since the ability to create and maintain classroom discipline is implicated in each of the three burnout dimensions. Bauer et al. [14] examined frequency of classroom management problems reported by teachers. Verbal insults were experienced by 42%, damage to personal belongings by 7% and violent threats by 4.4% of the participating teachers. Continuous exposure to interpersonal conflict and a classroom environment marked by high levels of aggression, threat and violence can have adverse effects on teachers' endocrine, immunological and neurobiological responses and is therefore a serious health hazard [41,42]. By implication, students' disruptive behaviour and classroom discipline problems pose serious occupational hazards that can perpetuate stress experience and might eventually culminate in the manifestation of burnout symptoms [27].

Ozdemir [26] conducted a seminal study with 523 teachers who were asked to complete the MBI, a CM self-efficacy scale and a questionnaire on demographic variables such as teaching experience, gender and marital status. Overall, differential patterns of results were observed from the multiple regression analysis regarding the impact of the four predictors on each of the dimensions. Classroom management explained the greatest amount of variance in each of the three dimensions, whereas demographic background factors yielded a relatively small magnitude. More precisely, 13% of the variance in emotional exhaustion, 14% of the variance in depersonalization and 27% of the variance in the personal accomplishment component could be attributed to perceived classroom management efficacy [26]. The data lend support to the observation that "teachers' competence to cope with disruptive student behaviour was significantly related to each dimension of burnout" [43]. Despite delivering valuable insights, a possible reservation that can be raised concerns the measurement of classroom management. The objection is twofold: Firstly, no objective measure of actual classroom management skill was employed to validate teachers' self-reports, which might already be affected by the detrimental effects of burnout on self-evaluation and accomplishment. Secondly, information about the psychometric properties, including internal consistency, item analysis and reliability values are not explicated by the authors; nor are the actual items on classroom

management itself. Overall, the assumed relationship between classroom management skills and burnout is not without theoretical and empirical rationale but the trustworthiness of the classroom management measure presented by Ozdemir [26] can be regarded with a fair amount of skepticism.

In an effort to analyse the associations between teacher burnout and occupational stressors, Kokkinos [18] conducted a comprehensive study with 447 primary school teachers. Teacher burnout was measured using a translated version of the Maslach Burnout Inventory Educators' Survey [6]. Additionally, a questionnaire consisting of 63 items was constructed on the basis of previous research and pilot interviews with teachers on potentially stressful aspects of teaching. The outcome of multiple regression analysis demonstrated that "two sources of stress, namely, managing student misbehaviour and time constraints, explained most of the variance in emotional exhaustion... regarding depersonalization, managing student misbehaviour and conscientiousness were the stronger predictors of this burnout dimension" [18]. However, it could be argued that the notion of student misbehavior remained unspecific and limited to teachers' self-reports. The objections leveled at the Ozdemir [26] study apply with equal force to the findings observed by Kokkinos [18] would have been even more convincing if an established instrument had been employed for measuring teachers' classroom management expertise.

Underbrink [13] demonstrated a close association between classroom management deficits, characterized by student misbehavior and hostility, and mental ill-health in teachers. The parameter that turned out to be most significantly associated with mental ill-health in teachers was hostility directed at teachers, an indicator of classroom management deficits. Fully consonant with this notion, Gavish and Friedman [36] concluded that "classroom management and discipline problems are pinpointed as the harshest, most persistent problems in almost every study on early experiences of teaching." Both variables are related, student misbehaviour can be a function of CM deficits.

Although student misbehavior is inconsistently defined, it mainly refers to disruptions and noncompliance that interfere with the teacher-student interaction and obstruct regular instruction. Student misbehavior encompasses a broad range of heterogeneous problem such as off-task activities, failure to follow instructions, disrespect towards teacher other students, walking in the classroom without permission, verbal aggressions and aggressions [22]. These difficulties are frequently linked but not limited to externalizing disorders. Children with ADHD for instance are particularly susceptible to disruptive and inadequate behaviour. Although not trained as intervention providers, teachers are often exposed to students with severe behavioral difficulties. Implementing behavior modification strategies in the classroom enables teachers to address externalizing problems and achieve discipline among students. However, the symptoms of ADHD can become manifest in the absence of a functional CM. CME can therefore be conceived as an indispensable requirement for avoiding and reducing the stress conferred by such behaviour problems. Numerous studies have investigated the mental health outcomes in teachers resulting from persistent student misbehavior.

A carefully designed meta-analysis encompassing 21 independent samples revealed a statistically meaningful association between student misbehavior and teacher burnout [44]. By adopting rigorous inclusion and exclusion criteria, the authors identified a subset of studies with comparable methodological paradigms. All of the included studies utilized the Maslach Burnout Inventory (MBI) as a measure of teacher burnout. A multivariate analysis was conducted to calculate

the amount of variance in teacher burnout that can be explained by student misbehavior. Although personal variables such as gender and teacher age contributed to the observed variance, classroom discipline problems were the leading predictors of teacher burnout. It was significantly related to each of the three dimensions of teacher burnout. However, the greatest magnitude was reported for the correlation between teacher burnout and emotional exhaustion. As the authors suggests, emotional exhaustion might impede teachers' ability to cope with difficult student behaviour. More precisely, the affected teachers might not have the emotional resources required to employ positive behavior modification strategies and tend to draw on punitive practices instead [45]. While such an explanation is compelling, the results might also be indicative for the emotional burden originating from discipline problems and interpersonal stress. Emotional exhaustion might be both a precedent and an outcome of student misbehavior and perpetuated by dysfunctional CM. It is not without theoretical rationale to conceive CM deficits as a risk factor, in that they increase the occurrence of emotionally taxing disturbances in the classroom and deplete personal resources such as self-efficacy. Teachers with low CM skills might be more vulnerable towards student misbehavior, emotionally strained and therefore inclined to react with dysfunctional and coercive control strategies that exacerbate the stressful discipline problems. In order to interrupt this escalating cascade, teachers need to be equipped with classroom management skills and positive behaviour modification techniques.

As the literature indicates, self-efficacy beliefs substantially contribute to teacher mental health and among the most prominent protective factors against burnout. However, self-efficacy does not arise from simply believing in oneself. Rather, it is a function of a learned contingency between own efforts and positive achievement. Self-efficacy results from repeatedly experiencing the positive effect of one's own action and resources. These experiences in turn depend on the availability of skills required for successfully accomplishing situational demands. Without skills, teachers are unlikely to experience themselves as competent and to develop self-efficacy beliefs. Indeed, they are a function of specific evidence for one's effectiveness. Teachers with low CM skills have little reason for positive self-efficacy beliefs. Classroom management has been designated as one of the areas where teachers rate their preparedness as insufficient and feel overwhelmed by the specific demands. To advance an understanding of the interplay between CM, self-efficacy and teacher burnout, this complex issue has been subjected to a multivariate meta-analysis [46]. More specifically, the authors addressed self-efficacy beliefs concerning classroom management expertise. In essence, the data revealed lower degrees of burnout in teachers who reported positive self-efficacy beliefs about their CME. Overall, the protective effect of self-efficacy on teacher burnout might be an indirect one that primarily originates from classroom management skills. Judging from the available evidence reviewed so far, a substantial proportion of interventional strategies for at-risk teachers should be devoted to amplifying CME.

Across different studies, behaviour modification approaches to discipline problems yielded promising outcomes. Within this paradigm, the positive behavior support represents a well research and evidence based line of intervention. It is derived from the principles of coercion and social ecological theory and comprises elements of functional behavioral analysis. Intervention studies have consistently documented the benefits of positive behavior support programs, targeted towards addressing coercive interaction and improving prosocial skills. Pervasive evidence has been detected in a groundbreaking and methodologically sound longitudinal study on the

effect of a positive behavior program implemented in 28 interventions and 20 control schools. A sample of over 7,500 Norwegian students and 1,500 teachers participated in the project and completed behavioural measures. By the end of the 4-year intervention period, the teachers reported less behavioural problems among students. Aside from the reduction of misbehavior, the data revealed a global improvement of the school climate. Also, the number of segregated students decreased in the intervention schools but increased at the control sites. Another intervention study examined how positive behavior support affects teachers' self-efficacy and burnout levels; the data indicate favourable outcomes in schools with high treatment fidelity. Teachers from schools that strictly adhered to the intervention reported substantial improvement in self-efficacy and burnout [47].

## Discussion

To recap, the available literature demonstrates that among numerous parameters, CM deficits are most predictive for deteriorating mental health in teachers and rank as one of the leading sources of teacher burnout [13]. These reports are fully consonant with previous results on the bidirectional association between CME and student misbehavior. An effective and healthy learning environment is more difficult to achieve, when teachers are exposed to a high percentage of challenging behaviours. Students with behavioural difficulties or expansive disorders such as attention-deficit-hyperactivity disorder (ADHD) or oppositional defiant disorder (ODD) often disrupt learning and teaching activities and impede classroom management efforts. At the same time, disruptive and oppositional behaviour of students is also a function of classroom management skills. As documented in previous studies, a lack of CM skills constitutes a major risk factor for stress invoked by discipline problems. Unless teachers can draw on skills to modify student misbehaviour, the occurrence of stressful interactions is likely to be exacerbated. As a result of these stressors, teachers experience severe strain that depletes their emotional and information processing resources. Consequently, the access to more elaborate cognitive processes and problem solving strategies is restricted. In an attempt to control and regulate the apparent discipline problems, teachers are then inclined to rely on dysfunctional and mostly punitive practices. These might confer an immediate sense of control and self-efficacy and are therefore habitually retained. However, coercive strategies tend to provoke defiant reactions from students and eventually initiates an escalating cycle of negative interaction. Teachers are unlikely to succeed in such a mutually coercive interaction, as their scope of punitive action is inevitably limited. While students can resort to verbal aggression and harassment, teachers have to adhere to moral and legal standards. Overall, insufficient CM gives rise to punitive approaches to discipline problems that perpetuate the maladaptive student behaviour and teachers' emotional exhaustion. Therefore, positive behavioural support on the basis of operant principles constitutes a more promising strategy for achieving CM and protecting teacher health.

While such generic explanations for the effects of on student misbehavior on teachers' burnout risk have been developed, these lack specificity for the unique challenges presented by insufficient CM. Synthesizing the overall amount of evidence, a threshold hypothesis might provide a compelling explanation for the significant effect of CME on teacher health. Follow a vulnerability-stress paradigm, the hypothesis forwarded here implicates and interaction between predisposing (constitutional or learned) and precipitating factors to explain the aetiology of teacher stress. According to this model, teacher stress originates from a discrepancy between situational demands and teachers' resources and skills. Substantiating the seminal work

of Lazarus, the threshold hypothesis attributes stress to a discrepancy between demands and resources. In classes with unproblematic and normally developed children for example, limited CME might be compensated. Teachers who are rarely exposed to problem behaviour can cope with the regular instructional demands even if their CME is insufficient. Hence, a lack of CME does not inevitably result in burnout but increases the vulnerability to situational stressors such as discipline problems. If the situational demands exceed the CM capacity, teachers are susceptible to feelings of helplessness, stress and even shame. In other words, the maximum level of CM demarcates a critical threshold and the degree to which teachers can cope with the situational demands. Once these exceed the critical point, CM deficits become manifest and teachers can no longer draw on skills required to successfully modify student misbehavior. Instead, they are likely to draw on maladaptive coping and control strategies to compensate the skill deficit. Such an explanatory model can account for the emotional exhaustion and lack of accomplishment reported by teachers with burnout. However, lack of accomplishment such as CME deficit seems to be both a precedent and a dimension of burnout.

Although the causal mechanism need to be investigated and specified further, the threshold hypothesis resonates with data revealed by previous research. By implication, classroom management training might be imperative for burnout prevention and alleviation [13,14]. Teachers with sufficient CME possess the resources required for coping with the high situational demands and mastering challenging student behaviour. They can experience themselves as effective; develop functional cognitions, control beliefs and resilience towards situational stressors. CME then constitutes a major resource to prevent and reduce the stress resulting from students' misbehavior. Therefore, the promotion of CM skills should be emphasized interventions targeted towards teacher burnout. Ozdemir [26] stresses the need to consider classroom management improvement when designing interventions for the prevention and treatment of teacher burnout, as teachers' expertise in dealing with classroom problems might provide an "effective solution" for preventing burnout.

## Conclusion

As evident in the literature, classroom management problems are a leading parameter of occupational stress and can induce and exacerbate burnout symptoms in teachers. However, the contribution of specific behavioural skills such as classroom management expertise has not yet been fully explored in the field of teacher burnout. Therefore, a review of present findings on the relationship between classroom management and teacher burnout was both warranted and paramount. One compelling rationale for such a review was to inform interventions directed toward teacher burnout. Consistent with this aim, interventions within the behavioural modification paradigm are advocated to improve classroom management. By adopting such techniques, teachers can address disruptive and stressful behavior of students and reduce the risk for burnout. Notwithstanding the valuable results emerging from past studies, research on the interplay between CME and burn out is complicated by the almost total reliance on self-ratings of CME that are closely allied to the construct of self-efficacy. The construct has been almost exclusively operationalised by drawing on self-ratings, reflecting the implicit assumption that self-efficacy beliefs about CME are fully consonant with actual CME [16,22,48]. Virtually no research has compared the relative contribution of subjective and objective CME measures to burnout. From a theoretical and methodological perspective, implementing performance-based, objective CME measures alongside traditional self-reports is vital

for understanding the etiology of teacher burnout and deriving implications for prevention and treatment. Indeed, it is questionable whether accurate and valid self-reports can be obtained from teachers who experience burnout and, consequently, a loss of confidence and sense of accomplishment, as observed in several studies [49].

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