



Research Paper

Conceptual-Methodological Analysis and Proposal for Research Design of The Relationship Mental Distress – Professional Burnout in the Educational Context

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Abstract. Psychological distress and burnout are among the most frequently studied risks to teacher well-being, but the relationship between them often remains conceptually and methodologically ambiguous. This article aims to propose a conceptual-methodological analysis and a research framework for studying the relationship between psychological distress and burnout in the teaching profession. Based on a critical review of meta-analyses, systematic reviews and profile empirical studies in education, the distinction between psychological distress as a non-specific indicator of psychological distress and burnout as a syndrome specific to the work context is argued. The analysis shows that emotional exhaustion emerges as a key mechanism through which chronic demands and resource deficits in the school environment are associated with increased levels of distress. The proposed framework integrates the Job Demands-Resources model with approaches based on control and resource conservation, including cognitive appraisal and coping strategies as central process mechanisms. The need for longitudinal and multilevel research designs that take into account the dynamics of appraisal, the role of organizational context, and the configurations of demands and resources at different educational stages is argued. The article offers methodological guidelines for operationalization, design, and analysis that can support future empirical research and the development of interventions aimed at both individual teacher well-being and school environment conditions.

Keywords: psychological distress; burnout; teachers; demands and resources; methodological framework; research design.

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I. Introduction

Problematic framework and relevance of the topic

Teachers' professional well-being is being established as a key factor for the quality of education, the sustainability of school systems and the psychosocial development of students. Over the past two decades, research has consistently shown that the teaching profession is associated with high levels of chronic stress, emotional strain and the risk of mental ill-health. In this context, psychological distress and burnout emerge as central, but ambiguously conceptualized, phenomena.

Accumulated empirical data indicate that high levels of burnout often coincide with increased distress, depressive symptoms and reduced life satisfaction in teachers. This set of indicators is important not only for individual functioning, but also for the school environment as a whole. It has been shown that teachers' mental state influences the emotional climate in the classroom, the quality of interactions with students and the organizational effectiveness of the school.

Despite the wide interest in the topic, the relationship between psychological distress and burnout is often viewed in a simplistic manner. In a number of studies, the two constructs are used interchangeably or are analyzed without a clear distinction between their theoretical boundaries. This makes the interpretation of the results difficult and limits the possibilities for developing effective interventions that target causal mechanisms, not just symptoms.

Need for conceptual and methodological clarification

Mental distress is usually defined as a non-specific state of psychological distress, which encompasses symptoms of tension, anxiety, and depression and can stem from various life and professional sources. In contrast, burnout is described as a syndrome that occurs in response to chronic work demands and resource deficits, with specific manifestations within the professional context.

The theoretical distinction between the two constructs is well argued, but methodologically it often remains insufficiently taken into account. The use of cross-sectional designs, simultaneous self-report measures, and limited modeling of work contexts creates the risk of construct overlap and misleading inferences about the direction of the relationship. As a result, it remains unclear whether burnout functions as a predictor of broader psychological distress, whether distress constitutes a vulnerability that increases the risk of burnout, or whether the two processes develop in a dynamic interaction.

A further complication arises from the fact that teaching takes place in complex organizational systems. Differences between primary and secondary education, between individual schools, and between educational contexts are often interpreted as individual or stage effects, without taking into account the configuration of job demands and available resources. This highlights the need for methodological models that include both individual experience and organizational context. In support of this, a study with data from 2,619 teachers shows that burnout symptoms vary between schools, with emotional exhaustion differing significantly at the school level, suggesting an important role for organizational conditions, not just individual characteristics (Tikkanen et al., 2022).

Theoretical Prerequisites for an Integrative Approach

Modern models of workplace stress provide a sound theoretical basis for conceptualizing the relationship between the work environment, burnout, and psychological distress. One of the most widely used approaches is the Job Demands–Resources model, which views working conditions as a dynamic interaction between job demands and available resources. Within this model, chronic demands are primarily associated with the development of emotional exhaustion, while resources serve a protective and motivational function, supporting engagement and well-being (Demerouti et al., 2001; Bakker & Demerouti, 2007). As the authors emphasize, “each occupation has its own specific risk factors that can be classified as demands or resources” (Demerouti et al., 2001, p. 501).

The classical demand control model complements this perspective by emphasizing the role of autonomy and perceived control as key buffers in conditions of high demands. According to Karasek, “high psychological demands lead to strain, especially when combined with low job control” (Karasek, 1979: 287). This logic is particularly relevant for the teaching profession, where formal demands often exceed the possibilities for autonomous planning and decision-making. Resource conservation theory extends the analysis by focusing on the processes of resource loss and recovery. In this approach, stress and distress are seen as the result of “actual resource loss, threat of loss, or inadequate return on investment of resources” (Hobfoll, 1989: 516). Prolonged exposure to such processes increases the likelihood of chronic distress and the development of burnout through so-called “resource loss spirals”.

Taken together, these theoretical frameworks are conceptually compatible and allow for the development of an integrative methodological model in which burnout is understood as a work-mediated process and psychological distress as a broader psychological outcome of a prolonged imbalance between demands and resources. The inclusion of cognitive appraisal and coping strategies as process mechanisms contributes to a more precise understanding of how objective working conditions are evaluated, interpreted, and ultimately translated into subjective experience and psychological consequences (Lazarus & Folkman, 1984).

Aim and scope of the study

The aim of this article is to propose a conceptual-methodological analysis and a research framework for investigating the relationship between psychological distress and burnout among teachers. By synthesizing existing theoretical models and empirical evidence, methodological guidelines are formulated for clearly distinguishing constructs, for selecting adequate measurement instruments, and for designing research designs sensitive to the dynamics of the work context.

The article does not present empirical data, but aims to support future research by systematizing key methodological decisions and by arguing for the need for longitudinal and multi-layered approaches to studying teacher well-being.

II. Methods

Article design and analytical approach

This article follows a conceptual-methodological design based on a critical analysis and synthesis of established theoretical models, meta-analyses, systematic reviews and profile empirical studies in the field of

teacher well-being. The aim is not to generalize quantitative effects, but to derive methodologically sound principles for studying the relationship between psychological distress and burnout.

The analytical approach is organized in three consecutive steps.

- first, the main conceptual distinctions and empirically stable dependencies between psychological distress, burnout and the professional context of teaching are identified;

- second, these dependencies are interpreted through an integrative theoretical framework that allows for simultaneous consideration of work demands, available resources and process mechanisms of assessment and coping;

- third, on this basis, a proposal for a research design is formulated, including principles for operationalization, design and analytical strategy.

Theoretical Framework of the Methodological Model

The methodological framework of this study is based on the Job Demands-Resources (JD-R) model, which is used as a structural backbone to organize the key variables and formulate the research assumptions. The model is designed as a flexible framework applicable to different professional contexts, including education, and allows for a clear distinction between factors that increase the risk of burnout and those that promote well-being and motivation (Demerouti et al., 2001; Bakker & Demerouti, 2007).

Within the JD-R framework, all job characteristics can be conceptualized as demands or resources. Demands refer to aspects of work that require sustained physical, cognitive, or emotional effort and are associated with psychological and physiological costs. As Demerouti and colleagues emphasize, "job demands are not negative in themselves, but they can lead to burnout when they require effort that is not adequately compensated" (Demerouti et al., 2001, p. 501). In the context of the teaching profession, such demands include high workload, emotional labor, role conflicts, and administrative pressure.

Resources, in turn, represent aspects of the job that support the achievement of professional goals, reduce the costs associated with the demands, and support personal development. These include both structural characteristics, such as autonomy and supportive leadership, and personal resources, such as self-efficacy and professional competence. Later developments of the model emphasize that "resources not only mitigate the negative effects of demands, but also have their own motivational potential" (Bakker & Demerouti, 2017, p. 274).

The JD-R model assumes two main processes. The first is the health impairment process, in which chronic demands lead to emotional exhaustion and burnout. The second is the motivational process, in which resources support engagement and resilience. This dual logic makes the model particularly suitable for methodologically investigating the relationship between occupational burnout and psychological distress, as it allows for the simultaneous analysis of risk and protective factors (Hakanen, Bakker, & Schaufeli, 2006).

In the present framework, the JD-R model is used not only as a descriptive theory, but also as a methodological tool for structuring the design. It offers clear guidelines for selecting variables, formulating hypotheses, and modeling the relationships between the work environment, burnout, and psychological well-being. Its integration with models focused on the control and conservation of resources allows for a more nuanced capture of the processes through which working conditions translate into sustainable psychological outcomes.

Process mechanisms: cognitive appraisal and coping

In the proposed model, cognitive appraisal and coping strategies are seen as central processes that link work conditions to psychological outcomes. In line with the transactional approach to stress, the way teachers appraise work situations is crucial for the development of burnout and distress.

When demands are perceived as exceeding available resources and control, the likelihood of emotional exhaustion increases. Conversely, the availability of resources such as autonomy, social support, and a sense of efficacy supports a more adaptive appraisal of the situation and more effective coping. In this sense, cognitive reappraisal and problem-focused coping may function as protective processes that mitigate the relationship between work demands and negative psychological consequences.

This process focus allows the work environment to be viewed not only as a source of strain, but also as a context in which the meaning of situations is formed and changes over time.

Conceptualization of the relationship between psychological distress and burnout

Within the present methodological framework, psychological distress and burnout are treated as related, but different in nature, phenomena. Psychological distress is viewed as a general indicator of psychological distress, influenced by both professional and non-professional factors. Burnout, in turn, is defined as a syndrome specific to the work context, arising from a prolonged imbalance between demands and available resources.

The proposed model allows for several possible directions of the relationship between the two constructs. In one interpretation, burnout, and in particular emotional exhaustion, functions as a direct mechanism through which unfavorable working conditions are associated with increased psychological distress. In another

interpretation, distress is viewed as a vulnerability that increases sensitivity to work demands and accelerates the processes of burnout.

In addition, the possibility of a two-way relationship is also assumed, in which distress and burnout reinforce each other within resource spirals. This perspective allows for a more flexible and realistic modeling of the processes characteristic of chronic occupational stress.

Operationalization and measurement: principles and criteria

The proposed framework emphasizes the importance of clearly demarcated operationalization of psychological distress and occupational burnout. The use of brief and validated instruments for non-specific psychological distress, suitable for non-clinical occupational samples and sensitive to group differences, is recommended for assessing distress.

Occupational burnout should be measured with instruments developed or adapted for the educational context, which allow for a separate analysis of its main components. This is important, since different dimensions of burnout may show different sensitivity to working conditions and different relationships with distress.

Job demands and resources are viewed as multidimensional constructs and are appropriately measured by sets of indicators that reflect the specifics of the teaching profession. The inclusion of process variables, such as cognitive appraisal and coping strategies, allows the analysis to focus not only on the outcomes but also on the mechanisms that give rise to them.

Recommended design and analytical solutions

Given the dynamic nature of psychological distress and burnout, the framework argues for the need for longitudinal research designs. They allow for a more precise examination of the direction of relationships and changes over time that cannot be captured by cross-sectional studies.

As a complementary approach, diary and real-time assessment methods are discussed, which provide a finer picture of daily fluctuations in workload, assessment and recovery. These approaches are particularly suitable for studying processes that develop at a micro level and are sensitive to the specific context of the day.

From an analytical perspective, the use of latent variable models is recommended, which help to distinguish constructs and allow for the examination of mediation and moderation effects. In the case of data from multiple schools, the importance of multilevel modeling is emphasized, which takes into account the role of the organizational context and avoids simplistic individualistic interpretations.

III. Results

Synthesized relationships between work conditions, burnout, and psychological distress

The synthesis of existing empirical data and theoretical models outlines relatively stable relationships between work environment characteristics, components of professional burnout, and psychological distress in teachers. These relationships are observed across different educational systems and research designs, suggesting that they reflect common processes rather than context-specific effects.

At the center of these relationships is emotional exhaustion, which has consistently been identified as the most sensitive component of burnout to chronic work demands. It is this component that most directly reflects the prolonged expenditure of emotional and cognitive resources and is most often associated with experiences of tension, fatigue, and reduced psychological energy. Within the "Job Demands-Resources" model, high demands are primarily associated with increased levels of emotional exhaustion, while resource deficits are more closely associated with the development of cynicism and withdrawal from work. This differentiation between the components of burnout has important methodological significance, as it shows that the different aspects of the syndrome do not follow an identical developmental logic and are not equally sensitive to all characteristics of the work environment.

Psychological distress, measured as a non-specific indicator of psychological distress, is expected to be most strongly associated with emotional exhaustion. In this sense, exhaustion functions as a proximal mechanism between adverse working conditions and broader psychological consequences. This configuration supports the understanding of professional burnout as a work-mediated pathway to psychological distress, without distress being reduced to a simple synonym or direct continuation of burnout.

The role of resources as a protective and moderating factor

Resources emerge as a key element in explaining variations in teachers' experiences at similar levels of work demands. It has been observed that teachers facing such workloads may demonstrate significantly different levels of emotional exhaustion and psychological distress depending on the availability and quality of resources at their disposal. Autonomy, social support, leadership quality, and personal resources such as self-efficacy are consistently associated with lower levels of emotional exhaustion and psychological distress. These resources not only facilitate coping with daily demands, but also influence the way in which work situations are evaluated and

interpreted. Within the proposed framework, resources serve a dual function. On the one hand, they have a direct protective effect by supporting recovery, maintaining psychological energy, and a sense of professional competence. On the other hand, they moderate the relationship between demands and negative outcomes by mitigating the effect of high workload on emotional exhaustion and psychological distress.

This dual effect supports the need to consider resources not as secondary or control variables, but as a central part of methodological models and intervention strategies. It also emphasizes that effective interventions should address not only the reduction of demands, but also the systematic strengthening of resources in the school environment.

Expected models of the relationship between psychological distress and burnout

Based on the theoretical synthesis and available empirical data, three main, competing models of the relationship between psychological distress and burnout can be formulated. Each of these models is supported by some of the existing literature and reflects different emphases in understanding the processes related to teacher well-being.

The first model considers burnout, and in particular emotional exhaustion, as a proximal predictor of psychological distress. In this scenario, chronic work demands and resource deficits lead to the development of burnout, which gradually increases the risk of broader psychological distress. This model is consistent with the understanding of burnout as a job-specific mechanism through which the professional environment influences general mental health.

The second model suggests the opposite direction, in which increased psychological distress functions as vulnerability. Teachers with higher levels of distress are expected to be more sensitive to job demands and more likely to develop burnout even under relatively moderate workloads. In this case, distress is not a consequence but a starting point that amplifies the effect of occupational stressors.

The third model assumes a bidirectional relationship in which distress and burnout reinforce each other over time. This dynamic is consistent with conservation of resources theory and the concept of resource spirals, in which initial resource loss leads to increased vulnerability and difficulty in recovery. In this model, burnout and distress are viewed as mutually reinforcing processes, which has important implications for the choice of research design and the interpretation of empirical results.

Importance of process mechanisms for interpreting results

Incorporating cognitive appraisal and coping strategies allows for a more nuanced interpretation of the expected dependencies. Job demands are not expected to have a direct and unidirectional effect on distress and burnout, but to operate through the way they are appraised and through perceived control and coping opportunities. Appraising work situations as threatening, combined with low perceived control, is expected to be associated with higher levels of emotional exhaustion and distress. Conversely, appraising the same situations as challenging, supported by available resources and adaptive coping strategies, is associated with more favorable psychological outcomes.

This process approach contributes to understanding individual differences under similar objective conditions and supports the need for methodological designs that capture the dynamics of experience.

The expected differences between primary and secondary education are not interpreted as a result of the educational stage itself, but as a reflection of different configurations of work demands and resources. Higher educational stages are often characterized by higher workloads, larger numbers of students and higher specialization, which increases the risk of emotional exhaustion in the absence of adequate resources.

At the same time, variations between schools emerge as a significant source of differences in teachers' experiences. This highlights the importance of the organizational context and supports the use of multilevel approaches that distinguish between individual and contextual effects.

IV. Discussion

Interpretation of the synthesized results

The presented synthesized results support the understanding that the relationship between psychological distress and professional burnout in teachers cannot be adequately explained by unidirectional or simplified models. Instead, it should be viewed as the result of a dynamic interaction between work demands, available resources and cognitive appraisal and coping processes.

The central role of emotional exhaustion has emerged as a relatively consistent finding across different theoretical approaches. It functions as the component of burnout closest to the experience of distress and as a major channel through which adverse work conditions translate into broader psychological distress. This observation supports the conceptual distinction between burnout as a work-specific process and distress as a more general indicator of psychological strain.

At the same time, distinguishing between the different components of burnout allows for a more precise interpretation of the results. While emotional exhaustion appears to be closely related to distress, apathy and disengagement from work appear to be more sensitive to resource deficits and to a prolonged sense of lack of meaning and support in the professional context.

Methodological contribution of the proposed framework

The formulation of an integrative conceptual-methodological framework systematizes the relationship between psychological distress and professional burnout in teachers. The framework offers a clear way to distinguish constructs, to position burnout as a work-mediated process, and to include resources and process mechanisms as central analytical elements. By using the “Job Demands – Resources” model as a structural backbone, consistency between theory, operationalization, and research design is ensured. Supplementing this model with the perspectives of control and protection of resources allows for a better capture of the processes of vulnerability, recovery, and chronicity of distress.

An important methodological advantage of the framework is the assumption of competing models of the relationship between distress and burnout. Instead of imposing a pre-selected direction of influence, the possibility of unidirectional and bidirectional relationships is recognized, which more realistically reflects the complexity of the phenomenon under study.

Implications for future research

The proposed framework has direct implications for how future empirical research should be designed:

- first, the results support the need for longitudinal designs that allow for the investigation of the dynamics and direction of the relationships between burnout and distress. Cross-sectional studies remain useful for descriptive purposes but are limited in terms of process analysis.

- second, the inclusion of process variables such as cognitive appraisal and coping strategies creates the opportunity for more fine-grained modeling of the mechanisms through which work conditions influence psychological well-being. This opens up space for the use of diary and real-time assessment methods that capture intrapersonal variability and sensitivity to everyday context.

- finally, the emphasis on organizational context and variation between schools argues for the use of multilevel analytical approaches. Such approaches allow for the distinction between individual and contextual effects and avoid reductionist interpretations that attribute distress and burnout solely to personality characteristics.

Practical and interventional implications

From a practical perspective, the results support the need for combined intervention approaches that address both individual teacher well-being and school environment conditions. Interventions that focus solely on individual coping are unlikely to be sustainable unless accompanied by changes in the configuration of job demands and resources.

Resources emerge as a particularly relevant point for intervention. Improving autonomy, social support, and leadership quality can have both direct effects on well-being and indirect effects through changes in the appraisal and coping with job demands. In this sense, organizational interventions and professional development of managers are essential parts of strategies for the prevention of burnout and distress.

Limitations of the conceptual-methodological approach

The present work has several limitations that should be taken into account. First, the analysis is based on a synthesis of existing literature and does not present original empirical data. This limits the possibility of directly testing the proposed models and emphasizes the need for future empirical research.

In addition, some of the cited studies were conducted in specific cultural and educational contexts, which raises questions about the generalizability of the results. However, the proposed framework is formulated at a sufficiently general level to be adapted to different educational systems.

Methodological guidelines and conclusion

The proposed methodological guidelines, based on a combination of individual and organizational perspectives, create conditions for a more in-depth and contextually sensitive study of mental health in education. By integrating established theoretical models and systematizing existing empirical evidence, a framework is proposed that allows for a more precise distinction of key constructs and a more adequate modeling of their interrelationships.

Professional burnout is conceptualized as a work-mediated process that connects the characteristics of the school environment with broader indicators of mental well-being. Mental distress, in turn, is viewed as a non-

specific but sensitive indicator of the cumulative impact of chronic demands, resource deficits, and appraisal and coping processes.

The proposed framework emphasizes the central role of emotional exhaustion, the importance of resources as a protective and moderating factor, and the need to take into account the organizational context. The inclusion of competing and bidirectional models of the relationship between burnout and distress reflects the complexity of the phenomenon under study and provides a methodological basis for future empirical research.

In conclusion, the proposed integrative approach can support both research practice and the development of interventions aimed at sustainably improving teacher well-being.

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