FACTORS INFLUENCING TEACHER RESILIENCE BASED ON A THREE-DIMENSIONAL FRAMEWORK: A MINI-REVIEW

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ABSTRACT

Teacher resilience is a crucial factor in shaping educators' professional development and enhancing the quality of education at all levels. This review delves into the key elements that influence resilience among teachers. Using a framework that categorizes these factors into personal, interpersonal, and external dimensions, we analyze the essential components that enable educators to thrive in the face of adversity. The discussion highlights the evolution of resilience research, transitioning from a trait-based perspective to a socioecological and multidimensional approach. We examine the impact of personal factors such as self-efficacy, emotions, and teacher identity, as well as the importance of interpersonal relationships, including mentorship and support from family and friends. Additionally, we explore contextual factors, encompassing aspects of the teaching environment, school culture, and relevant policies and practices that contribute to the development of teacher resilience. This review presents the current state of research in this field, synthesizes a comprehensive understanding of teacher resilience, and offers actionable strategies for educators, policymakers, and researchers aiming to foster sustainable development within the teaching profession.

Keywords: Teacher Resilience, Emotional Regulation, School Culture, Teacher Identity, Teacher Professional Development.

1. INTRODUCTION

Teaching is considered one of the most challenging professions. Despite its significance, university educators face many stressors, such as heavy workloads, time constraints, inadequate welfare systems, personal health, and racist opposition etc.(Collie and Mansfield, 2022; Lu and Hua, 2022) Today, the range of pressures faced by university teachers is more diverse than ever before. The ever-increasing demands of university teaching work have caused educators to feel anxious about their mental health, job satisfaction and overall efficiency.

In this context of internal stress and multiple external challenges, teacher resilience is considered to be necessary in that it can break through the predicament at the moment (Qin, 2024). Early resilience research categorized resilience as a personal trait (Garmezy, 1985). However, as the field evolved, resilience came to be understood in a broader context. Benard (2004) proposed a broader perspective, in which resilience was expanded to the process of individuals overcoming adversity with the help of protective factors. Building on this evolving understanding, Ungar's social ecological view specifies and proves that context has a significant impact on resilience (Ungar et al., 2013). Research indicates that individual factors and contextual factors have an intricate and complex interaction, which ultimately affects teacher resilience (Beltman et al., 2011). Notably, contextual factors even outperform individual ones in predicting teacher

adaptation, further emphasizing the importance of contextual factors and their theoretical value (Ainsworth and Oldfield, 2019) .

In light of these insights, we aim to summarize and integrate the latest research on the factors influencing teacher resilience. Drawing from the available research on the development of teacher resilience, we categorize these factors according to personal (internal) characteristics, interpersonal relationships, and contextual (external) influences. This integrative approach is expected not only to contribute to the academic discourse but also provide valuable insights for educational researchers and practitioners seeking to enhance teacher resilience.

2. FACTORS INFLUENCING TEACHER RESILIENCE
2.1 Individual factors

Previous studies have examined various individual-level factors that may affect teacher resilience. The factors include self-efficacy (Gratacós et al., 2021), emotional regulation (Ee and Chang, 2010), and teacher identity (Flores and Day, 2006).

A strong, enduring sense of self-efficacy can promote teacher resilience (Day, 2008). Previous research has demonstrated that teachers with high self-efficacy are more popular with students, take on more significant academic tasks, and have higher expectations (Tucker et al., 2005). The efficacy is most easily influenced during early teaching experiences, and once formally established, it is resistant to change (Tait, 2008). In terms of teacher resilience, teachers' efficacy is related to the way they facilitate this process, with self-efficacy strongly perceiving behavior. Sosa and Gomez (2012) emphasized that multiple contexts influence teacher efficacy, which in turn impacts teacher resilience. These contexts include interpersonal relationships surrounding teachers and the external administrative teaching environment, leading to further investigation of contextual factors in teacher resilience. This research indicates that teachers possessing high self-efficacy are more inclined to foster supportive relationships with their students.

While the role of self-efficacy in enhancing teacher resilience is well-documented in literature, certain limitations exist regarding its effectiveness in aiding teachers' assessments. Since the strength of efficacy beliefs is not consistent in different areas (Pajares, 1992; Bandura, 1993), separate assessments specific to the teaching field need to be emphasized (Sosa and Gomez, 2012). Therefore, subsequent researchers have attempted to specify the influence of teacher self-efficacy. For example, a study examining self-efficacy and basic psychological needs in teacher education utilized the General Self-Efficacy Scale (Schwarzer and Warner, 2013) and analyzed data across various cohorts, considering gender and university (Kassis et al., 2019). A recent study in South Africa incorporated contextual resilience questions into the original self-efficacy scale, enhancing the validity of the findings to actual teaching practice (Jonker et al., 2024).

Emotional regulation refers to individuals' capacity to manage their emotions through various strategies, thereby maintaining psychological resilience (Ee and Chang, 2010). It includes the management and suppression of emotional expression, which promotes individual development. Goleman's five-factor model has an important historical position in measuring emotional intelligence, in which self-regulation is considered an important factor (Goleman, 1998). There have been many studies exploring the adaptive effects of emotional management in various aspects of teachers' professionalism and lives, including its predictive role in teacher success (Li and Lv, 2022), emotional regulation and emotional labor strategies (Hu, 2023), and happiness and work characteristics (Han et al., 2020). Guided by the Process Model of Emotion Regulation, the assessment criteria for emotional regulation revolve around the two regulatory strategies of

cognitive reappraisal and expressive suppression (Gross and John, 2003). The usefulness of the emotion regulation questionnaire (ERQ) developed in this way is supported by empirical research on emotional regulation (Sala et al., 2012), and it also effectively assesses teachers' emotional regulation, becoming a powerful tool for advancing research on teachers' emotional resilience. Thanks to this, the path by which emotional regulation affects teachers has gradually become apparent, and emotional regulation directly affects teacher burnout through the mediating effect of psychological resilience (Li, 2023).

Nevertheless, in the specific practical process, some researchers have also noticed that there are differences in individuals' emotional regulation in specific contexts. The two emotional strategies promoted by the ERQ are not noticeable enough to capture teachers' emotional exhaustion. For example, a study exploring the relationship between perceiving student misbehavior and emotional exhaustion streamlined the ERQ and subdivided it from the cognitive perspective of internal and external differences to adapt more suitable assessment items for the research context (Tsouloupas et al., 2010). Future research should integrate the multifaceted factors influencing teacher resilience and develop more relevant assessment criteria, such as the work-related emotional labor scale (Brotheridge and Lee, 2003).

The construction of teacher identity includes the understanding and reinterpretation of one's own value and experience (Flores and Day, 2006). Influenced by views of identity formation and the place of emotion, the nature of teachers' discourse has received attention from researchers (e.g., Zembylas, 2003; Johnson et al., 2010). Teacher identity is constructed through a range of discourses, including the individual teacher and their profession. It is worth noting that the VITAE project in the UK has conducted a detailed examination of the various stages of a professional teacher's career, emphasizing that teacher identity is closely related to different types of teachers at each stage and the concept of resilience also changes accordingly (Sammons et al., 2007). On this basis, the perspectives of external contextual factors such as school culture and leadership have been emphasized, and attention has been paid to the positive role of supportive external protective factors such as teachers maintaining their professional identity and resilience (Carrillo and Flores, 2017), which is also consistent with the definition of resilience as the result of the interaction between internal and external factors.

Furthermore, there has increasingly been a focus on the positive role of teacher identity in how early teachers respond to complex and diverse teaching challenges (Beauchamp and Thomas, 2009; Day, 2018), and research methods have continued to broaden. Cobb (2022) examined the phase during which novice teachers underwent training to integrate into school communities, employing Lave and Wenger's concept of legitimate peripheral participation (Lave and Wenger, 1991). This framework aligns with the transitional relationship and is illustrated through metaphoric drawings and narratives, offering insights into the underlying conceptual frameworks of teacher identity. A recent study departs from conventional narrative research methods in identity and resilience studies by developing a multiple mediating effects model to investigate the mediating role of teacher identity (Zhang et al., 2024). These studies offer some novel approaches to investigating the research methodology concerning teacher identity and resilience.

Overall, researchers have conducted in-depth discussions on individual teacher factors such as teaching motivation, self-efficacy, emotions, and teacher identity. The pathways of interaction and mediation between individual teacher factors and external contextual factors need to be further refined. Notably, the interplay of gender, age, and health with teacher resilience has been

reconsidered since the epidemic (e.g., Baguri et al., 2022; Liu et al., 2022; Baatz and Wirzberger, 2025), warranting further exploration in future research.

2.2 Interpersonal factors

When exploring the impact of interpersonal factors on teachers' resilience, relationships, as the core carrier of teachers' social networks, become a key entry point for understanding the construction of their resilience. Teachers engage in dynamic interactions with students, colleagues, leaders, and families, which provide emotional support and professional resources. This engagement fosters a reciprocal strengthening of resilience capabilities through collaboration.

Jordan (2005) introduced a relational resilience model grounded in relational-cultural theory. The model posits that resilience is not solely an individual experience but is derived from a sense of connection. The key to developing positive psychological resilience lies in the positive reciprocity movement with others. In this process, the three relationship attributes of mutual, empowering, and encouraging are emphasized (Le Cornu, 2013). And the objects of relationship-building span personal and professional relationships. The key point is the two-way nature of relationship building for teachers, which means that teachers should have the ability to maintain a positive relationship while also participating in it. This further shows that relationships bring not only a single supportive effect but also challenges for teachers.

Anyone related to the teacher can provide social support, but family or similar close people (colleagues and family members) are often the most common (Dennis et al., 2005). Collegial relationships have been extensively addressed by Brunetti (2006), Gu and Day (2007) and Davis and Borden (2024). The social support and opportunities for dialogue that collegial relationships provide can reduce teachers' emotional challenges (Sheridan et al., 2022), while professional dialogue with colleagues builds resilience in most early career teachers (Ungar, 2004). The mentorship relationship has garnered considerable attention from researchers. A positive relationship with a mentor can significantly impact the satisfaction and self-efficacy of early career teachers (Castro et al., 2010). Both formal and informal mentoring relationships positively influence the development of teacher resilience (Morettini, 2019). In the current study, most early career teachers need more guidance and support at the theoretical and practical levels. In addressing challenges, it is insufficient to solely focus on building positive relationships; the importance of professional development must also be highlighted. Experienced mentors offer early career teachers insights from both practical and micro perspectives, attributable to their high levels of expertise (Le Cornu, 2013).

In addition, the support of family and friends has also received attention, especially for early career teachers. Le Cornu (2013) affirmed the powerful role of personal relationships, including family and friends, in building confidence and restoring energy through an analysis of the results of interviews with 60 beginning teachers and their principals. In this relationship, the presence of someone who also has the identity of a teacher makes it possible for the teacher to be strongly supported both personally and professionally. This also reflects the intertwined and complex nature of interpersonal factors. On this basis, external and continuous support from family and friends is clearly classified under the resilience research sub-theme of interrelationship and is defined as a dynamic informal social support relationship (Sheridan et al., 2022). Some studies indicate that familial community variables may adversely affect teachers. Work-family conflict represents an internal role conflict where the demands of one role adversely affect the performance of another role within the family context (Greenhaus and Beutell, 1985). Due to the permeable

context of the boundary between work and family (Richter et al., 2015), work stress and family conflict are linked (Ismail and Gali, 2016), indicating that negative home context for teachers may impact their professional performance.

It is worth mentioning that some researchers have incorporated interpersonal relationships into the conception of resources within the research process. In this perspective, interpersonal relationships are seen as the key for teachers to access and mobilize identified resources through which they can address their needs and establish and maintain their own support networks (Ebersöhn and Ferreira, 2011). Building on this perspective, Ebersöhn (2012) discussed the relationship in a survey of South African schools, emphasizing the collective nature of resilience generation, arguing that within flocks, individuals jointly access, share, and transfer resilience resources under adverse conditions. This extends the positive role of relationships from individual to collective resilience building. Overall, positive relationships that prioritize collaboration, constructive feedback, and respect within the teaching context enhance teacher resilience. Elements characterized by conflict or disengagement are often detrimental and counterproductive.

2.3 Contextual Factors

Contextual factors permeate all aspects of teachers' daily lives and work. Several studies have examined the complex contextual factors of teachers' lives and work, including policies and practices (Day and Gu, 2007), teachers' work (Beltman et al., 2011), and school culture (Ainsworth and Oldfield, 2019).

Policy and practice are formally sanctioned statements of norms and value preferences (Johnson et al., 2010). Most research suggests that a combination of policy initiatives and changes in social expectations, norms, and behaviors towards teachers and students have affected educational commitment, motivation, and increased stress for educators, threatening teacher resilience (Gu and Day, 2007; Flores, 2018). Sweden and New Zealand have implemented similar administrative framework for teacher development to the UK (Goodson and Numan, 2002). This holds true for the United States, Australia, and the majority of other nations (Day and Gu, 2007).

Policy is often intertwined with multiple conditions that influence teacher resilience, and its specific impact is the result of the interaction of multiple elements. Discussions among scholars across different perspectives have examined the characteristics and tendencies of policy and its association with factors such as teacher identity, trust, self-efficacy, and school culture (Hendrikx, 2019; Guenther, 2021; Rushton et al., 2023). Building on this, possibilities for promoting teacher resilience are being explored. Mansfield et al. (2016) noted the absence of a direct introduction to protective factors of resilience, such as emotional management, in the Australian Professional Standards for Teachers. They also highlighted the neglect of the relationship between teachers and their colleagues, as well as the importance of supportive relationships between teachers and members of the wider community. It has been suggested that an open and supportive policy environment should be provided for teachers, with opportunities to demonstrate results and collaborate with each other (Mullen et al., 2021). However, there is still some controversy regarding policy and teacher resilience in relation to the age factor, including the impact of complex educational environments on the relationship between age and resilience. (Amin et al., 2022)

The work of modern teachers is characterized by fragmentation (Carlgren, 1999). Simultaneously, accountability mechanisms (Ball, 2003) and frequent reforms (Flores, 2018) have

created numerous challenges for educators, significantly undermining protective factors and destabilizing teachers' work (Gu and Day, 2007). However, other studies have shown that teachers' work is not necessarily a risk factor for teacher resilience. A qualitative study of 10 inner-city teachers found that resilient teachers derived deep personal satisfaction from their work and relied on a wide support network of teacher colleagues, family and friends, and church groups (Stanford, 2001).The relational component of teachers' work contributes to a sense of success and satisfaction (Schuck et al., 2012). Consequently, when assessing the factors that influence teacher resilience, researchers should adopt a dynamic approach and consider the influencing factors from different dimensions. Notably, the measurement and evaluation criteria for teacher work must be consistent because they do not perceive their workload status in the same manner. A quantitative analysis of workload factors reveals that survey responses from different teachers fluctuate around the mean (Ainsworth and Oldfield, 2019), indicating disparities in the distress experienced by teachers. Subsequent research could go further and focus on bridging the gap between the measurement standards of work factors and teachers' actual feelings.

The values, beliefs, norms, assumptions, behaviors, and relationships that comprise the daily rituals of a school are collectively referred to as school culture (Johnson et al., 2010). Conway and Clark (2003) noted the crucial role of culture for teachers, arguing that teaching culture is conducive to fostering the reflective disposition of novice teachers. They also identified teacher preparation culture as a necessary condition for incorporating an assessment of the validity and reliability of the development model for intern teachers. This is a significant expansion of previous context theories (e.g., Brown et al., 1989; Lerner, 1991) about teacher development . It is worth mentioning that the principal plays a pivotal role in shaping the school culture and acts as a culture builder in the teacher induction process (Flores and Day, 2006, McCormack et al., 2006), and his leadership in developing school culture is significantly different in quality from that of other colleagues (Peters and Pearce, 2011). In recent years, scholars have conducted in-depth research on the relationship between school culture and teacher resilience. Their discussions have involved multiple perspectives, examining the content and characteristics of school culture and the sub-factors through which it acts on teacher resilience, including boosting motivation and professionalism (Flores, 2018), the importance of collaboration (Johnson et al., 2014), and collective responsibility for teacher well-being and learning (Le Cornu, 2013), maintaining teacher commitment and energy (Harris and Jones, 2010).

While some researchers believe that culture significantly impacts teacher resilience, the identification and measurement of culture provide considerable challenges. Considering the potential limitations of conventional measures and the complexity of quantitative analyses of school culture, Ainsworth and Oldfield (2019) made a preliminary attempt based on relevant elements in the existing teacher resilience literature. A unique subscale was constructed based on the dimensions of a sense of community, belonging, openness, and optimism to capture teachers' perceptions of the school context. Based on previous qualitative research, this multidimensional approach has a unique impact on the subsequent quantification of school culture factors.

3. SUGGESTIONS FOR FUTURE RESEARCH

Given the changing educational landscape and the challenges educators encounter, it is crucial to investigate new research directions regarding teacher resilience. By expanding our perspectives and embracing a holistic approach, future studies can significantly deepen our understanding of teacher resilience and its effects on educational outcomes.

Future research can focus on broadening perspectives, conducting cross-cultural comparisons, and investigating how cultural values influence the acquisition of resilience resources. Additionally, it should aim to develop a multi-level measurement system that assesses the contributions of individual, interpersonal, and contextual factors, while continuously enhancing the evaluation of teachers' psychological activities. Research on teacher resilience needs to transcend fragmented viewpoints and establish a dynamic integration framework. Through interdisciplinary collaboration and methodological innovation, we can shift this field from a focus on risk response to sustainable development, thereby providing robust scientific support for fostering educational resilience worldwide. As the educational landscape becomes increasingly complex, resilience research must embrace interdisciplinary dialogue and innovative methodologies to effectively address the critical question of how to cultivate more resilient educators and promote the flourishing of teachers.

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