

Analysis of Relationship between Resilience and Well-being among Secondary School Chemistry Teachers



Dr. Muhammad Siddique	Superior University, Lahore, Pakistan. siddiqueamar@gmail.com
Abdul Mannan	Ph. D Scholar (Education) Superior University Lahore. jalib2025@gmail.com
Dr. Hamid Ali Nadeem	Lecturer, Department of EPPSL, Faculty of Education, Allama Iqbal Open University, Islamabad, Pakistan. hamid.ali@aiou.edu.pk

Abstract: *This study aimed to find the relationship between teachers' well-being and resilience at the secondary school level and to find the effect of Chemistry teachers' well-being on resilience. The correlational research design was adopted in this study. The population comprised of 8911 Lahore division secondary school teachers. A multi-stage random sampling technique was used to select the 380 Chemistry teachers as sample of the study. Two five-point Likert scale adapted research instruments were used for data collection from the subjects. Pearson 'r' and linear regression were applied for data analysis. This study revealed the strong positive correlational between teachers' well-being and resilience. Moreover, Chemistry teachers' well-being has a positive impact on resilience. It would appear that studies on teachers' well-being and resiliency would be profitable and enhance their future preparation with educational and consultative treatments that may be advantageous for the educator, the organization, and the advancement of the students. Further researchers may conduct the research studies using the same constructs by adopting the qualitative, experimental or mixed-method research design at elementary, secondary, higher secondary or university level.*

Keywords: Well-being, Chemistry Teachers, educational institutions, Resilience

Introduction

Teachers play a crucial role in educational institutions. They are viewed as the principal support point in the school system. It is acknowledged that teachers have valuable skills in keeping their health in check and remaining resilient in the face of professional challenges. This claim is well-supported by the literature, which has seen a rise in research on teacher resilience and well-being over the past ten years (Collie et al., 2015; Day & Gu, 2014; Mansfield, 2021; Rahm & Heise, 2019). Even though the terms "well-being" and "resilience" are used a lot, the way these concepts are thought of

can often seem pretty limited, and the connection between the two may not be clear. This may not come as a surprise, given that both concepts are multidimensional, dynamic, and complex (Tweed et al., 2020).

Furthermore, some scholars have defined teacher resilience as a social-ecological capacity or activity (Gu, 2018; Mansfield et al., 2018; Theron, 2018), emphasizing its significance in effectively navigating everyday teaching obstacles while maintaining one's identity (Beutel et al., 2019). It may be nurtured and developed by generating and employing situational and individual capabilities (Day & Hong, 2016;

Beutel et al., 2019; Tait, 2008; Gu & Day, 2013; Gu, 2018). An educator's resilience capacity may also be investigated to understand their professional identity better, drive to teach, convictions, and responsibility (Fenton-O'Creevy et al., 2015; Flores, 2018; Lohbeck, 2018; Li et al., 2019; Huang, 2021).

Resilience and well-being are well-known psychological concepts that are studied in a wide range of fields. Many conceptions of wellbeing trace their origins to Diener's (1984) pioneering definition of (generic) psychological wellbeing, which included a range of cognitive and affective elements encompassing both happy and negative feelings and satisfaction. The consensus is that a subjectively good assessment of life quality leads to well-being (Deci & Ryan, 2008).

Ungar (2012), who defined (generic) resilience as a process in which people employ their own and their environment's resources to navigate challenging situations successfully, inspired the idea of resilience. Resilience is a multifaceted concept involving several contextual and personal resources, much like well-being. Despite certain similarities, well-being and resilience are thus separate concepts. According to studies, teacher well-being and resilience favor instructional and educational quality, teacher self-efficacy, devotion, and quality of work life (Day & Gu, 2014; Schleicher, 2018). Although a more hopeful state of well-being influences how teachers comprehend and respond to challenges and is an essential effect of the resilience process, it is also clear that teacher well-being is critical in the resilience process (Mansfield et al., 2016).

Research Objectives

The following were the research objectives of the study:

1. To find the relationship between teachers' well-being and resilience at the secondary level.
2. To find the the effect of teachers' well-being on resilience at the secondary level.

Literature Review

The topic of teacher wellbeing has received more focus over the past few years. The welfare of educators has thus attracted increasing scientific curiosity. Due to a variety of academic and empirical viewpoints, this has given rise to a variety of various conceptualizations (McCallum et al., 2017). For example, Cenkseven-Onder and Sari (2009) characterize the well-being of teachers as general well-being, encompassing delight with one's life and an upbeat rather than a depressed mood, whereas Capone and Petrillo (2018) indicate well-being as psychological wellness. Aldrup et al. (2018) allude to teacher well-being as an association between working optimism and mental fatigue.

Teacher well-being has been most commonly defined as a complex, multifaceted concept that includes a variety of factors, such as the feeling of pleasure and positive emotions and the lack or presence of negative thoughts and objections. As a result, one limitation of the study area may be the fact that numerous strategies for educator well-being lack a domain-specific viewpoint. As an outcome, we advocate for a more specific to-domain perspective that investigates the factors that support or hinder the well-being of educators. Contextual elements such as class composition, school atmosphere, collegiate assistance, or educational materials might be examples, as would personal differences such as seniority, expertise, consciousness abilities, and resiliency (McCallum et al., 2017).

Resilience, in accordance with a number of academics, is a complex and

ever-changing job that describes how humans respond behaviorally to stressful experiences by recovering and thriving. Indeed, resilience has been defined as a personal trait or ability that supports people in surviving, adapting, and thriving in the face of adversity (Connor & Davidson, 2003; Yu & Zhang, 2007). Also, Tait (2008) stated as “a way of responding to environmental events that are initiated and strengthened during times of stress” (p. 58) is the definition of resilience. However, the existence of hazards and effective adaptation to these risks serve as the two fundamental building blocks that make up the concept of resilience (Luthar & Cicchetti, 2000; Leroux, 2018).

Studies on educator resiliency also have expanded in the last 15 years (Mansfield 2021). The concept of resilience has been extensively researched using various perspectives and techniques (Beltman & Mansfield 2018). We contend that comprehension of educator resilience entails having a firm concept of resiliency, similar to how knowing schoolteacher well-being and health generally necessitates having a firm grasp of resilience. The views of resiliency have expanded to include broader notions along with concentrating on resilience practices and skills for people. For example, Masten (2014) defines resilience as the capacity of a dynamic system to effectively react to shocks that risk system function, sustainability, or advancement. Using assets in order to adjust effectively is the process of becoming resilient in such a system (Ungar 2012).

Resilience has been considered in the context of learners’ learning, similar to how teacher resilience has evolved from an individual’s mental emphasis to understanding resilience as a process and an achievable goal. According to Gu and Li (2013), rather than being a completely innate characteristic, resiliency in academic

contexts is influenced by personal attributes in interplay with contextual elements in which educators’ professions and lifestyles are immersed. Contemporary perspectives on teacher resilience thus center on an individual teacher, but with the realization that the teacher lives and works in many dynamical and evolving situations (Day & Gu 2010). The multifaceted nature of resilience is illustrated by the fact that in order to operationalize resilience, scholars have analyzed a number of notions, including self-efficacy, emotional maturity, teacher-pupil relationships, work pressure, schooling system and assistance, and classroom management (Ainsworth & Oldfield, 2019). Resilience has also been linked to consequences, including dedication to one’s career, quality of work life, commitment, and wellness (Cook et al., 2017; Gu, 2014).

According to our findings, various studies tended to approach teacher resilience and well-being, assuming they were the same factors. For example, when mentioned as substantial challenges for teachers (Gibbs & Miller, 2014) or when connected to the same outcomes, the words “teacher wellbeing” and “teacher resilience” have been used simultaneously (Larson et al. 2018). Various studies mentioned good emotions as impacting teachers’ well-being and resilience (Critchley & Gibbs, 2012; Roffey, 2012). Similarly, numerous studies have focused on practices like meditation that could improve teachers’ wellness and resilience (Wells & Klocko, 2018). Teacher well-being and teacher resilience; other studies have discovered a link (Ballantyne & Zhukov, 2017); their indicators have also been discovered to be closely associated (Fernandes et al., 2019); or educator well-being and teacher resilience are predicted to have some strong correlation to a third structural model (Papatraianou & Le Cornu 2014). Well-being and teacher resiliency

were seen as linked. For some, teacher wellness included aspects of signals related to or components of resilience (Acton & Glasgow, 2015; Noble & McGrath, 2015). Nonetheless, several studies determined that educator well-being was indeed a part of or perhaps an indicator of resilience (Soini et al., 2010).

The study found that a third body of research identified teacher well-being as a predictor of teacher resilience development and/or enhancement. According to these studies, teacher well-being is a general requirement or enabling factor for the growth of teacher resilience (Gray et al., 2017). Others argued that using health strategies and competencies boosted teachers' resilience (Lester et al., 2020). As a result, educator well-being was seen as a tool for fostering resilience in teachers.

Most research recognized the importance of educator resilience in preserving and improving educator well-being. Resilience in teachers is the ability to maintain, improve, or reestablish educator wellness (Clara 2017; Johnson & Down, 2013). Buric et al. (2019) found teacher resilience as a contributing factor to educator well-being. According to other studies, effective behavioral interventions for increasing teacher resiliency increase teacher well-being (Beshai et al., 2015; Cook et al., 2017; Griffiths 2014; Johnson et al., 2014; Mahfouz, 2018). Pretsch et al. (2012) discovered that the function of resilience in educator wellbeing might not apply to all components of teacher wellbeing; in other words, teacher resilience may only be utilized to predict particular dimensions of teacher wellbeing. Despite this, there must be some limits. They additionally claimed that the teaching profession had a larger influence in resilience and wellbeing than other occupations (engineering, media design, and marketing) (Ainsworth & Oldfield, 2019;

McCallum et al., 2017; Simmons et al., 2019). Other studies that look at the role of constructive adaptivity in regulating the prospective effect of teacher resilience on teacher welfare include building varied resources and resolving difficulties (Owen, 2016).

According to Pretsch et al. (2012), some aspects of teacher wellbeing may not be affected by teacher resilience; in other words, teacher resilience may only be used to predict some aspects of teacher wellbeing. Additionally, they asserted that teaching had a greater influence on resilience and well-being than other professions (Ainsworth & Oldfield, 2019, McCallum et al., 2017, Simmons et al., 2019), and other research examines the function of constructive adaptivity in reducing the potential impact of teacher resilience on teacher wellbeing. Other studies examine the creation of multiple sources and the removal of barriers (Owen, 2016).

Resilience and well-being have previously been demonstrated to be directly and closely correlated (Svence & Majors, 2015). According to Mguni and her coworkers (2012), well-being and resilience are associated in two ways: our resilience does affect how content we are with our lives, and how we feel about our lives today can help us survive future. Subjective well-being has been discovered to significantly contribute to the resilience of aspiring teachers in the field of education, and teachers' ability to maintain their well-being has been found to depend on resilience (Kim & Fah, 2015). There appear to be certain similar elements that promote both resilience and well-being that need to be investigated further in order to determine the exact link between them.

Additionally, the precise manner in which these two notions are connected is uncertain. It has been proposed, for example, that resilience as a personal

resource buffers the impacts of the unique challenges of the teaching profession (Pretsch et al., 2012). Nevertheless, teachers' professional well-being may be able to influence the development of dynamic resilience at some time. Lastly, we cannot overlook the reality that there are individuals and societies with high well-being but low resilience (Mguni et al., 2012; Richardson & Chew-Graham, 2016, p.10-11).

Methodology

This descriptive study employed a correlational research design since the researcher applied the positivist paradigm throughout the study. As a result, the current study was both quantitative and non-experimental. This research includes 8911 secondary school teachers from the Lahore division. The Lahore division is divided into four districts. The appropriate sample was chosen using a multi-stage random sampling process. In the first stage, two districts were chosen randomly from the Lahore division's four districts. The second stage involved selecting two tehsils from each selected district using a random sample approach. In the third stage, twenty-five boys' secondary schools and twenty-five girls' secondary schools were chosen from each designated tehsil. Lastly, because the Lahore division is divided into four districts, seven secondary school teachers (SSTs) from each selected school were included in the sample at the fourth step. The rationale for picking seven SSTs from each school is that the minimal number of SSTs in many high schools is 7 or 8. As a result, the study sample included 380 secondary school instructors who worked at chosen secondary schools in the Lahore division. The return rate ($n = 331$) was 87.10%.

The researcher employed two closed-ended questionnaires to get the required data from the chosen participants. The measuring of teachers' well-being was

the focus of the first portion. We utilized the Saarinen et al. (2007) relative scale, which is based on the model for the Occupational Well-being of School Employees (OWSS). .82 was the alpha value. There are four subscales included in it, including (a) working circumstances, (b) worker and work, where high scores indicate a manageable burden, (c) working community, and (d) professional competence. Second, a modified version of the Connor-Davidson Resilience Scale from 2003 was used to assess the resilience of instructors. .87 was the alpha value. Tenacity, optimism, and coping style are three of its aspects.

Analysis of Data

Inferential statistics techniques such as Pearson r and linear regression were used to examine the collected data.

Table 1: *Correlation between Teachers' Wellbeing and Resilience*

Variables	n	r - value	Sig.
Teachers' Wellbeing and Resilience	331	.852**	.000

** $p < .001$ (2-tailed)

Table 1 shows the relationship between teacher well-being and resilience. It was determined that teachers' well-being was highly related to resilience, $r = .852^{**}$, $n = 331$, $p = .001$.

Table 2: *Effect of Teachers' Wellbeing on Resilience*

Variables	B	t - value	Sig.	Model R Square
Teachers' Wellbeing and Resilience	.852	29.55	.000	.726

Table 2 showed that the linear regression findings' R^2 value (.726) explained the

variation in the criteria attributable to the predictor. As a result, teachers' well-being accounts for 72.6 percent of the variance in resilience. With a p-value of .001, the beta value (.852) is significant. The results showed that teachers' well-being strongly influenced resilience, with a value of .852 at $p = .001$.

Discussion

This component of the study presents the findings of correlational descriptive research, which looked at the connection between teachers' well-being and resilience. Moreover, regression analysis was used to evaluate how teachers' well-being affected their level of resilience. Examining the relationship between teachers' well-being and resilience was the first goal. Pearson r was used to determine whether there was a relationship between teachers' well-being and resilience. The findings showed a significant and favorable relationship between teachers' well-being and resilience. The findings are consistent with earlier research (Ainsworth & Oldfield 2019; Ballantyne & Zhukov, 2017; Fernandes et al., 2019; Kim & Fah, 2015; McCallum et al., 2017; Mguni et al., 2012; Razak & Kutty, 2021; Soini et al., 2010; Svence & Majors, 2015). All these studies have shown a positive and robust connection between teachers' well-being and resilience.

The last study question discovered the influence of teachers' well-being on resilience. The influence of teachers' well-being on resilience was studied using regression analysis. According to the findings, teachers' well-being showed a decent prediction capacity of resilience. The outcomes are consistent with those (Critchley & Gibbs, 2012; Mguni et al., 2012; Roffey, 2012; Richardson & Chew-Graham, 2016). The findings demonstrated that teachers' well-being positively

promotes resilience and that teachers' well-being is a primary determinant of resilience.

Conclusion

The current study investigated a positive and significant correlation between resilience and teachers' well-being at the secondary school level. Moreover, the study's outcomes concluded that resilience significantly and positively impacted teachers' well-being. Life satisfaction, quality of life, happiness, and thriving are all important aspects of an individual's well-being, particularly for teachers. In order to guarantee that the teaching and learning sessions run as planned, it is essential for teachers to maintain good physical and psychological wellness throughout their employment. This study, therefore, emphasizes the significance of teachers' well-being in Pakistan.

Implications

Future investigations using longitudinal designs might determine if the reported connections change over time. Future studies can also concentrate on the significance of individuals' overall well-being as well as their resilience history. Future studies should also agree on measures of teachers' well-being and define the impact of cultural context on their resilience and well-being while considering the literature review. Lastly, further research is required to determine the connection between teachers' professional well-being and resilience.

References

- Acton, R., & Glasgow, P. (2015). Teacher well-being in neoliberal contexts: A review of the literature. *Australian Journal of Teacher Education* (Online), 40(8), 99-114.
- Ainsworth, S., & Oldfield, J. (2019). Quantifying teacher resilience: Context Matters. *Teaching and Teacher Education*, 82, 117-128. <https://doi:10.1016/j.tate.2019.03.012>.

- Aldrup, K., Klusmann, U., Ludtke, O., Gollner, R., & Trautwein, U. (2018). Student misbehavior and teacher well-being: Testing the mediating role of the teacher-student relationship. *Learning and Instruction*, 58, 126-136. <https://doi.org/10.1016/j.learninstruc.2018.05.006>.
- Ballantyne, J., & Zhukov, K. (2017). A good news story: Early-career music teachers' accounts of their "flourishing" professional identities. *Teaching and Teacher Education*, 68, 241-251. <https://doi.org/10.1016/j.tate.2017.08.009>.
- Beltman, S., & Mansfield, C. F. (2018). Resilience in education: An introduction. In M. Wosnitza, F. Peixoto, S. Beltman, & C. F. Mansfield (Eds.), *Resilience in education: Concepts, contexts and connections*, (pp. 3-9). Springer International Publishing. <https://www.springer.com/gp/book/9783319766898>
- Beshai, S., McAlpine, L., Weare, K., & Kuyken, W. (2015). A Non-randomised feasibility trial assessing the efficacy of a mindfulness-based intervention for teachers to reduce stress and improve well-being. *Mindfulness*, 7(1), 198-208. <https://doi.org/10.1007/s12671-015-0436-1>.
- Beutel, D., Crosswell, L., & Broadley, T. (2019). Teaching as a 'take-home' job: Understanding resilience strategies and resources for career change preservice teachers. *The Australian Educational Researcher*, 46, 607-620. <https://doi.org/10.1007/s13384-019-00327-1>
- Burić, I., Slišković, A., & Penezić, Z. (2019). Understanding teacher well-being: A cross-lagged analysis of burnout, negative student-related emotions, psychopathological symptoms, and resilience. *Educational Psychology*, 39(9), 1136-1155. <https://doi.org/10.1080/01443410.2019.1577952>.
- C. A. Chew-Graham & M. Ray (Eds), *Mental health and older people: A guide for primary care practitioners*. Springer.
- Capone, V., & Petrillo, V. (2018). Mental health in teachers: Relationships with job satisfaction, efficacy beliefs, burnout and depression. *Current Psychology*, 39, 1-10. <https://doi.org/10.1007/s12144-018-9878-7>.
- Cenkseven-Onder, F., & Sari, M. (2009). The quality of school life and burnout as predictors of subjective well-being among teachers. *Educational Sciences: Theory and Practice*, 9(3), 1223-1235.
- Clara, M. (2017). Teacher resilience and meaning transformation: How teachers reappraise
- Collie, R. J., Shapka, J. D. N., Perry, E., & Martin, A. J. (2015). Teacher well-being: Exploring its components and a practice-oriented scale. *Journal of Psycho-educational Assessment*, 33(8), 744-756. <https://doi.org/10.1177/0734282915587990>.
- Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression & Anxiety*, 18, 76-82. <https://doi.org/10.1002/da.10113>
- Connor, K. M., and Davidson, J. R. T. (2003). Development of a new

- resilience scale: the Connor-Davidson resilience scale (CD-RISC). *Depress. Anxiety* 18, 76–82. doi: 10.1002/da.10113
- Cook, C. R., Miller, F. G., Fiat, A., Renshaw, T. L., Frye, M., Joseph, G., & Decano, P. (2017). Promoting secondary teacher's well-being and intentions to implement evidence-based practices: randomized evaluation of the achiever resilience curriculum. *Psychology in the Schools*, 54(1), 13-28. <https://doi:10.1002/pits.21980>.
- Critchley, H., & Gibbs, S. (2012). The effects of positive psychology on the efficacy beliefs of school staff. *Educational and Child Psychology*, 29(4), 64-76.
- Day, C., & Gu, Q. (2010). *The new lives of teachers*. Routledge.
- Day, C., & Gu, Q. (2014). *Resilient teachers, resilient schools: Building and sustaining quality in testing times*. Routledge.
- Day, C., & Hong, J. (2016). Influences on the capacities for emotional resilience of teachers in schools serving disadvantaged urban communities: Challenges of living on the edge. *Teacher & Teacher Education*, 59, 115-125. <https://doi:10.1016/j.tate.2016.05.015>
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9(1), 1-11. <https://doi:10.1007/s10902-006-9018-1>.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542-575. <https://doi:10.1037/0033-2909.95.3.542>.
- Fenton-O'Creevy, M., Dimitriadis, Y., & Scobie, G. (2015). Failure and resilience at boundaries: The emotional process of identity work. In E. Wenger-Trayner, M. Fenton-O'Creevy, S. Hutchinson, C. Kubiak & B. Wenger-Trayner (eds.), *Learning in landscapes of practice* (PP. 33-42). Routledge.
- Fernandes, L., Peixoto, F., Gouveia, M. J., Silva, J. C., & Wosnitza, M. (2019). Fostering teachers' resilience and well-being through professional learning: Effects from a training programme. *The Australian Educational Researcher*, 46(4), 681-698. <https://doi:10.1007/s13384-019-00344-0>.
- Flores, M. A. (2018). Teacher resilience in adverse contexts: Issues of professionalism and professional identity. In M. Wosnitza, F. Peixoto, S. Beltman & C. F. Mansfield (eds.), *Resilience in education: Concepts, Contexts and Connections* (pp. 167-184). Springer.
- Gibbs, S., & Miller, A. (2014). Teachers' resilience and well-being: A role for educational psychology. *Teachers and Teaching: Theory and Practice* 20 (5), 609-621. <https://doi:10.1080/13540602.2013.844408>.
- Gray, C., Wilcox, G., & Nordstokke, D. (2017). Teacher mental health, school climate, inclusive education and student learning: A review. *Canadian Psychology/Psychologie Canadienne*, 58(3), 203-210. <https://doi:10.1037/cap00001117>.
- Griffiths, A. (2014). Promoting resilience in schools: A view from occupational health psychology. *Teachers and Teaching*, 1, 1-12. <https://doi:10.1080/13540602.2014.937954>.
- Gu, Q. (2014). The role of relational resilience in teachers' career-long commitment and effectiveness. *Teachers and Teaching: Theory and*

- Practice*, 20(5), 502-529.
<https://doi.org/10.1080/13540602.2014.937961>.
- Gu, Q. (2018). Reconceptualising teacher resilience: a social-ecological approach to understanding teachers' professional worlds. In M. Wosnitza, F. Peixoto, S. Beltman & C. F. Mansfield (eds.). *Resilience in education: Concepts, contexts and connections* (pp. 13-33). Springer.
- Gu, Q., & Day, C. (2013). Challenges to teacher resilience: conditions count. *Br. Educ. Res. J.* 39, 1-23.
[https://doi:10.1080/01411926.2011.623152](https://doi.org/10.1080/01411926.2011.623152)
- Gu, Q., & Li, Q. (2013). Sustaining resilience in times of change: Stories from Chinese Teachers. *Asia-Pacific Journal of Teacher Education*, 41(3), 288-303.
[https://doi:10.1080/1359866X.2013.809056](https://doi.org/10.1080/1359866X.2013.809056).
- Gustems-Carnicer, J., Calderón, C., & Calderón-Garrido, D. (2019). Stress, coping strategies and academic achievement in teacher education students. *European Journal of Teacher Education*, 42(3), 375-390.
<https://doi.org/10.1080/02619768.2019.1576629>
- [https://doi:10.1080/17439760.2020.1725605](https://doi.org/10.1080/17439760.2020.1725605).
- Huang, J. (2021). Sustainability of professional development: A longitudinal case study of an early career ESL teacher's agency and identity. *Sustainability*, 13(16), 9025.
[https://doi:10.3390/su13169025](https://doi.org/10.3390/su13169025)
- Johnson, B., & Down, B. (2013). Critically re-conceptualising early career teacher resilience *Discourse: Studies in the Cultural Politics of Education*, 34(5), 703-715.
[https://doi:10.1080/01596306.2013.728365](https://doi.org/10.1080/01596306.2013.728365).
- Johnson, B., Down, B., Le-Cornu, R., Peters, J., Sullivan, A., Pearce, J., & Hunter, J. (2014). Promoting early career teacher resilience: A framework for understanding and acting. *Teachers and Teaching: Theory and Practice*, 20(5), 530-546.
[https://doi:10.1080/13540602.2014.937957](https://doi.org/10.1080/13540602.2014.937957).
- Kim, N. G. & Fah, L. Y. (2015). Relationship between stress coping factors with stress level during practical training among trainee teachers: A PLS-SEM approach. *Journal Pemikir Pendidikan*, 6, 1-12.
<http://jurcon.ums.edu.my/ojums/index.php/jurnal-pemikirpendidikan/article/view/337>
- Larson, M., Cook, C. R., Fiat, A., & Lyon, A. R. (2018). Stressed teachers don't make good implementers: Examining the interplay between stress reduction and intervention fidelity. *School Mental Health*, 10(1), 61-76.
[https://doi:10.1007/s12310-018-9250-y](https://doi.org/10.1007/s12310-018-9250-y).
- Leadership. *Journal of Educational Administration*, 56(6), 602-619.
- Leroux, M. (2018). Exploring Canadian early career teachers' resilience from an evolutionary perspective. In M. Wosnitza, F. Peixoto, S. Beltman & C. F. Mansfield (eds.), *Resilience in education: Concepts, contexts and connections* (pp. 107-129). Springer.
- Lester, L., Cefai, C., Cavioni, V., Barnes, A., & Cross, D. (2020). A Whole-school Approach to Promoting Staff Wellbeing. *Australian Journal of Teacher Education*, 45(2), 1-22.

- <https://doi.org/10.14221/ajte.2020v45n2.1>.
- Li, Q., Gu, Q., & He, W. (2019). Resilience of Chinese teachers: why perceived work conditions and relational trust matter. *Meas. Interdiscip. Res. Perspect.* 17, 143–159. <https://doi.org/10.1080/15366367.2019.1588593>
- literature. *Australian Journal of Teacher Education*, 40(8), 99-114. <https://doi.org/10.14221/>
- Lohbeck, L. (2018). The interplay between the motivation to teach and resilience of student teachers and trainee teachers. In M. Wosnitza, F. Peixoto, S. Beltman & C. F. Mansfield (eds.), *Resilience in education: Concepts, contexts and connections* (pp. 93-106). Springer.
- Luthar, S. S., & Cicchetti, D. (2000). The construct of resilience: implications for interventions and social policies. *Development Psychopathology*, 12, 857-885. <https://doi.org/10.1017/S0954579400004156>
- Mahfouz, J. (2018). Mindfulness Training for School Administrators: Effects on Well-being and
- Mansfield, C. F. (2021). *Cultivating teacher resilience: International approaches, applications and impact*. Springer.
- Mansfield, C. F., Beltman, S., Broadley, T., & Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidenced informed framework. *Teaching and Teacher Education*, 54, 77-87. <https://doi.org/10.1016/j.tate.2015.11.016>
- Mansfield, C. F., Ebersöhn, L., Beltman, S., & Loots, T. (2018). Great southern lands: making space for teacher resilience in South Africa and Australia. In M. Wosnitza, F. Peixoto, S. Beltman & C. F. Mansfield (eds.), *resilience in education: Concepts, contexts and connections*, (pp. 53-71). Springer.
- Masten, A. S. (2014). *Ordinary magic: Resilience in development*. Guilford Press.
- McCallum, F., Price, D., Graham, A., & Morrison, A. (2017). *Teacher wellbeing: A review of the literature*. Association of Independent Schools of NSW.
- Mguni, N., Bacon, N., & Brown, J. F. (2012). The wellbeing and resilience paradox. The Yoyng Foundation. <http://youngfoundation.org/wp-content/uploads/2012/10/The-Wellbeing-and-Resilience-Paradox.pdf>
- Noble, T., & McGrath, H. (2015). PROSPER: A new framework for positive education. *Psychology of Well-Being*, 5(1). <https://doi.org/10.1186/s13612-015-0030-2>.
- of Psychology in the 21st Century*, 9(1), 45-56. http://www.scientiasocialis.lt/ppc/files/pdf/45-56.Svence_Vol.9-1_ppc.pdf
- Owen, S. (2016). Professional learning communities: Building skills, reinvigorating the passion, and nurturing teacher wellbeing and “flourishing” within significantly innovative schooling contexts. *Educational Review*, 1-17. <https://doi.org/10.1080/00131911.2015.1119101>.
- Papatraianou, L. H., & Le-Cornu, R. (2014). Problematising the role of personal and professional relationships in early career teacher resilience. *Australian Journal of Teacher Education* 39 (1): 100-116.

- <https://doi.org/10.14221/ajte.2014v39n1.7>.
- Pretsch, J., Flunger, B. & Schmitt, M. (2012). Resilience predicts well-being in teachers, but not in non-teaching employees. *Social Psychology of Education*, 15(3), 321-336.
<https://doi.org/10.1007/s11218-012-9180-8>
- Pretsch, J., Flunger, B., & Schmitt, M. (2012). Resilience predicts well-being in teachers, but not in non-teaching employees. *Social Psychology of Education*, 15(3), 321-336.
<https://doi.org/10.1007/s11218-012-9180-8>.
- Rahm, T., & Heise, E. (2019). Teaching Happiness to teachers-development and evaluation of a training in subjective well-being. *Frontiers in Psychology*, 10: 2703.
<https://doi.org/10.3389/fpsyg.2019.02703>.
- Razak, N. A., & Kutty, F. M. (2021). Daya Tahan, Strategi Daya Tindak Serta Hubungannya Terhadap Tahap Kesejahteraan Psikologi Guru. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 6(3), 171-179. doi:
<https://doi.org/10.47405/mjssh.v6i3.713>
- Richardson, J. C. & Chew-Graham, C. A. (2016). Resilience and well-being (pp. 9-17). In
- Roffey, S. (2012). Pupil wellbeing teacher wellbeing: Two sides of the same coin? *Educational and Child Psychology*, 29(4), 8-17.
- Saaranen, T., Tossavainen, K., Turunen, H., Kiviniemi, V., & Vertio, H. (2007). Occupational well-being of school staff members: A structural equation model. *Health Education Research*, 22(2), 248-260.
<https://doi.org/10.1093/her/cyl073>
- Schleicher, A. (2018). *Valuing our teachers and raising their status: How communities can help*. OECD Publishing.
<https://doi.org/10.1787/9789264292697-en>.
- Simmons, M., McDermott, M., Lock, J., Crowder, R., Hickey, E., DeSilva, N., Leong, R., & Wilson, K. (2019). When educators come together to speak about well-being: An invitation to talk. *Canadian Journal of Education/Revue Canadienne De L'éducation*, 42(3), 850-872.
- situations of adversity. *Teaching and Teacher Education*, 63, 82-91.
<https://doi.org/10.1016/j.tte.2016.06.001>
- Soini, T., Pyhalto, K., & Pietarinen, J. (2010). Pedagogical well-being: Reflecting learning and wellbeing in teachers' work. *Teachers and Teaching: Theory and Practice*, 16(6), 735-751.
<https://doi.org/10.1080/13540602.2010.517690>.
- Svence, G., & Majors, M. (2015). Correlation of well-being with resilience and age. *Problems of Education in the 21st Century*, 51, 1-10.
- Tait, M. (2008). Resilience as a contributor to novice teacher success, commitment, and retention. *Teacher Education Quarterly*, 35, 57-75.
- Tait, M. (2008). Resilience as a contributor to novice teacher success, commitment, and retention. *Teacher Education Quarterly*, 35, 57-75.
- Theron, L. C. (2018). Teacher championship of resilience: Lessons from the pathways to resilience study, South Africa. In M. Wosnitza, F. Peixoto, S. Beltman & C. F. Mansfield (eds.), *Resilience in education: Concepts, contexts and connections* (pp. 203-220). Springer.

- Tweed, R. G., Mah, E. Y., & Conway III, L. G. (2021). Bringing coherence to positive psychology: Faith in humanity. *The Journal of Positive Psychology*, 16(3), 298-309.
- Ungar, M. (2012). Social ecologies and their contribution to resilience. In M. Ungar (ed.) *The social ecology of resilience: A handbook of theory and practice* (pp. 13-31). Springer Science+Business Media.
- Wells, C. M., & Klocko, B. A. (2018). Principal Well-being and Resilience: Mindfulness as a Means to that End. *NASSP Bulletin*, 102(2), 161-173. <https://doi:10.1177/0192636518777813>.
- Yahya, N., Ishak, H. S., Rahim, N. A., & Usuldin, H. S. (2020). Kesejahteraan Psikologi dan Keperluan Perkhidmatan Kaunseling dalam Kalangan Guru di Kementerian Pendidikan Malaysia. *Jurnal Psikologi dan Kaunseling*, 11, 1-32.
- Yu, X., & Zhang, J. (2007). Factor analysis and psychometric evaluation of the Connor-Davidson Resilience Scale (CD-RISC) with Chinese people. *Social Behavior and Personality: an international journal*, 35(1), 19-30.