

Annual Methodological Archive Research Review

<http://amresearchreview.com/index.php/Journal/about>

Volume 3, Issue 6 (2025)

From Stress to Strength: Investigating Teachers Immunity Through Identity, Support, and Well-Being

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Article Details

ABSTRACT

Keywords: Personal and Organizational Factors; Psychological Well-being; Teacher Professional Identity; Perceived Organizational Support; Teacher Immunity

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The present study attempted to determine the influence of personal and organizational factors on teacher immunity. Personal factors included psychological well-being, teacher professional identity, while organizational factor included perceived organizational support. In this regard, 305 primary school teachers from all over Pakistan, working in public and private educational institutions, were selected as sample through convenience sampling. Closed-ended questionnaire used to collect data and analyzed the data using PLS-SEM technique in Smart PLS Statistical Software. Results showed significant relationship between the factors that predicted teacher immunity. Moreover, the results of the study provide educational institutions to extend their support in terms of valuing teachers' contribution, improving their well-being and professional growth.

INTRODUCTION

Teachers play a crucial role in the education system as they are the lead facilitators of learning and act as mentor and guide for their students. Teacher's knowledge and experiences serve as resourceful support for students learning. It is imperative that teaching instructors must be skilled, devoted, physically healthy as well as mentally stable and possess a personality that inspire their students to think rationally and creatively. There are several factors that influence students' interaction in the classroom that particularly includes teacher's physical and mental health. In this world, no one can claim to have 100% immunity, similarly teachers are also not 100% protected from unpredictable factors affecting their performance and teacher immunity that are beyond their control. These factors may include internal or individual factors as well as external or environmental factors. In recent years there has been an intention diverted to teachers' mental health and well-being. Among several influencing elements that affect such a high-stake profession, Teacher Immunity (TI) is being discussed now days due to its indispensable role in well-being and potency. It is relatively a new concept that explains teacher immunity as a preventive and protective system which functions against multiple conflicts and hurdles in the teaching line of work (Hiver, 2014, 2017). Teacher Immunity refers to sustaining and bouncing back from emotional stress created from their demanding profession. It is based on physical and emotional well-being which enables educators to deal with their daily career challenges (Hiver, 2017). The idea of Teacher Immunity is in its initial stages. It takes its roots from Positive Psychology (PP) that relates to the concept of happiness, positive emotions and well-being. PP is embedded in psychological notions, investigation and progressive strategies to apprehend creative, imaginative and positive side of human behavior (Seligman & Csikszentmihalyi, 2000). Hiver (2017) proposed that TI has both positive and negative prospects. Its positive side enables effective teaching, makes instructors feel pleasant and acts as an armor against the adverse effects of burnout and disappointment. Whereas maladaptive immunity causes teachers to experience decreased motivation and low levels of self-efficacy.

As TI is being explored from different perspectives, several individual, organizational and environmental elements are there that directly or indirectly affects Teacher Immunity such as psychological well-being, teacher professional identity and perceived organizational support. Psychological wellbeing (PWB) of teachers not only considers mere happiness but also includes domain -specific well-being and feelings of satisfaction from their profession (Collie, 2022). In other words, teacher's wellbeing refers to their ability to keep an active balance between their

resources and professional encounters (Benevene et al., 2020). Another individual factors that relate to TI is their professional identity. Identity can be considered as a fusion of elements involved in how teachers define their personality. Professional Identity PI is regarded as an important dimension of teachers' personality, that evolves during the course of their teaching experience often revealing in contextual surroundings (Kalali Sani et al., 2021). The concept of teacher professional identity is vastly linked to teachers' progress and growth (Sheybani & Miri, 2019) thereby creating a positive professional identity may help teachers control the challenges of their profession. Jumping on the organizational factors affecting TI, one of which is Perceived Organizational Support that can be described as a strong feeling of employees that they are getting benefits from the organization in terms of value, rewards and respect. Based on reciprocity they will show behavior that is positive for the organization. Similarly, teacher's perceived organizational support can help them to face several challenges in teaching process and ultimately producing better personal and professional outcomes.

Understanding the factors that yields positive TI has become essential as it has an impact on student and teacher relationship (Sampson, 2022) and ultimately creates a favorable learning environment (Varthana, 2024). A few researches have been conducted so far to study its relationship with different constructs such as teacher motivation (Pourbahram & Sadeghi, 2020) teacher engagement (Beyranvand & Mohamadi Zenouzagh, 2021), reflective teaching (Amirian et al., 2023), emotional intelligence (Rezapoor & Mohammadzadeh, 2024), mindfulness (Li, 2022). Some of these constructs are studied as predictors while others being as results of Teacher Immunity. Still a thorough review of the literature uncovers that this domain is in preliminary stages with areas that are unexplored and visible gaps especially in the context of Pakistani educational system where apparently there is no such study been published so far. Therefore, in order to fill this research gap, this study aims to find out the impact of individual factors (Psychological Wellbeing and Teacher Professional Identity) and organizational factors (Perceived Organizational Support) on Teacher Immunity while measuring its presence in Pakistani teachers teaching in public and private schools.

RESEARCH QUESTIONS

1. Does Psychological well-being affect Teacher Immunity?
2. Is there any impact of teacher professional identity on Teacher Immunity?
3. Is perceived organizational support a predictor of teacher immunity?

LITERATURE REVIEW

TEACHER IMMUNITY

Immunity means opposition or resistance from something that can cause unwanted harmful effect. In the same way Teacher Immunity (TI) is a defensive strategy that educational instructors adopt to deal with several challenges in teaching process (Hiver, 2014). Teacher Immunity is a novel concept in the field of teacher psychology. It is first introduced by Hiver & Dörnyei (2017) who proposed that TI is not a built-in trait of one's personality rather it is a contextual construct that progress with respect to the challenges arising in the teaching environment and is reflected in the practical decisions that these instructors take on spot. TI depicts an educational instructor's decision-making abilities and reactions in the situations that they encounter in their profession. It acts as a protective shield against the material and emotional demands during the practice of teaching. In the presence of such protection, teachers are able to maintain an equilibrium, so they don't fall apart while dealing with difficulties.

Teacher Immunity encompasses an equal proportion of certain critical elements, such as the teacher's willingness to teach, their mental well-being, and ability to adapt to the environment, along with the instructional challenges including burnout, and disengagement (Hiver, 2017). Teacher Immunity can be differentiated in two contrasting ways: productive immunity (positive) and maladaptive immunity (negative). Productive TI works as a motivational factor that helps create dedication, responsibility, passion and resilience. On the other hand, maladaptive TI can be a source of indifference, suspicion and defiance to bring change that ultimately negatively affects teacher's professional advancement (Hiver, 2017). If viewed from the perspective of Positive Psychology (PP), PP is far away from optimism and negative elements like anxiety, stress, tension, demoralization, fright, dullness etc. (Mercer et al., 2020; Y. Wang et al., 2021). contrastingly, it emphasizes on factors such as expectations, love and affection, happiness, positivism, encouragement, well-being, resilience, persistence, innovation etc. (Derakhshan, 2022, 2022; Y. Wang et al., 2022). Based on this, positive emotions can embark meaningfulness and excitement to teaching and learning process creating a pillar of resiliency when confronting hurdles through the process.

Teacher Immunity is a novel concept that has appeared from the adaptation of self-organization and emergence framework. Self-organization is a vigorous universal process that changes the overall functioning of a dynamic system as the various parts of the system are interacting with each other that leads to reorganizing into new configurations (Hiver, 2014, Hiver & Dörnyei, 2017). Self-organization itself emerged from Complexity Theory (CT) (Larsen-

Freeman, 2012). Complexity Theory (CT) is a multidisciplinary structure that explores different interacting elements exhibiting communal behaviors which are not expected to be depicted from people as individual entity (Larsen-Freeman, 2012). The theory bears practical insights from the perspective of teaching and learning. It provides a framework for the interpreting changing system dynamics and helps to understand challenges of teaching and learning that are beyond traditional conceptualization. As it is evident that teaching and learning is not a simpler rather a complex system (Loughran, 2013), but the fact that complex systems are open to continuous change and development can't be ignored (J. H. Holland, 1992). It clearly depicts that when teaching instructor faces challenges in their respective environments, they exchange knowledge, wisdom and information and eventually show the emergence of newer adapted teaching method that is feasible for both the teacher and the students. TI, being a new concept in the literature is being explored from several perspectives as a predictor as well as what are its consequences. Present study aims to study whether psychological well-being, teacher professional identity and perceived organizational support are significant predictors of Teacher Immunity or not.

PERCEIVED ORGANIZATIONAL SUPPORT

Perceived Organizational Support (POS) is described as employees' overall belief that the organization admires their contributions, value them and supports them in their social and emotional needs (Eisenberger et al., 1986). The same study also reported that when employees feel that they are being valued and respected by their organization, they work even harder for the success of their organization (Eisenberger et al., 1986). Perceived organizational support is an essential means of support in the work environment (Singh et al., 2018). It plays its role in reducing physical and psychological costs of employees; arouse learning and progression; and enhance job engagement (Bakker & Demerouti, 2017). When employees feel supported from their organization, it helps them attain an optimistic sensational experience. Le & Lei (2019) debated that POS results in the employees giving their best in order to fulfil their personal and professional goals that indicates a positive reaction in return of the acceptance, support, value and care received by their organization.

Perceived organizational support endorses teacher's happiness, wellbeing and immunity by helping and supporting them that ultimately provide them satisfaction in their careers (Foster, 2014). Zhang et al. (2023) reported that POS proved to be a strong indicator of male teachers occupational commitment and wellbeing (Zhang et al., 2023). Occupational wellbeing also called career wellbeing is a sense of fulfilment and pleasure with your job (Nwoko et al., 2023). When

teachers are satisfied they are mentally strong enough to deal with the professional challenges. School teachers also experience stress and burnout as a result of modifications in education system. It is POS that realizes teachers that their institution value their role and cares for their well-being (Eisenberger et al., 1986). Xu & Yang (2021) reported job stress has a significant impact on teacher's burnout via perceived organizational support. Burnout is one of the composing element of teacher immunity, it can be proposed that perceived organizational support effects teacher immunity.

H: Perceive Organizational Support has a significant impact on Teacher Immunity.

PSYCHOLOGICAL WELL-BEING

Psychological well-being (PWB) is explained with the lens of three contrasting approaches. The hedonic view is explained as overall satisfaction and pleasure while the eudaimonic view of PWB covers the feelings of self-actualization and enhanced performance (Thorsteinsen & Vittersø, 2020). The third viewpoint of PWB is regarded as a grouping of hedonic and eudaimonic elements together while being in association to one another (Deci & Ryan, 2008). Ryff (1989) defined Psychological Wellbeing as a combination of six elements namely autonomy, purpose in life, environmental mastery, self-acceptance, positive relations with others and personal growth.

Keeping in mind the concept of Positive Psychology (PP) that emphasizes how individuals, groups, and organizations can excel while performing optimally. It is slightly different from traditional psychology that focus on the causes of mental issues where PP targets life improving positive traits, practices and making their implementation possible (Seligman & Csikszentmihalyi, 2000; F. Wang et al., 2023). In several studies of Positive Psychology, negative factors are highlighted but generally their aim is to explain what makes living easier and happier (Derakhshan, Kruk, et al., 2022; Seligman & Csikszentmihalyi, 2000). Derakhshan (2022) identified potential contributing factors of PP in foreign language teaching that includes: commitment, mindfulness, immunity, buoyancy, connectedness, immediacy and optimism. With regards to educational psychology, it should focus on human strengths and positive personality aspects instead of emphasizing and exaggerating complications and negativities (Derakhshan, Dewaele, et al., 2022; Derakhshan et al., 2023). Considering from the perspective of PP teacher's well-being is under focused with respect to its indicators and outcomes. The well-being of teachers stands far beyond merely absence of hindrances and stressors at workplace but it also deals with physical, mental health and functionality of teachers. Studies reveal that teacher's well-being is highly linked with personal factors like buoyancy, work engagement (Chen, 2024) and

job satisfaction (Dreer, 2024), also with organizational factors like organizational support and workload (Y. Wang, 2024). Moreover, it is also mentioned that teachers' psychological well-being is significantly associated with emotional dimensions of teaching profession (Derakhshan et al., 2023). On the contrary, absence of emotional control, low self-confidence and limited command over the subject may affect teacher's well-being negatively (Talbot & Mercer, 2018). In this study, teachers' well-being is referred as their sense of competency, ability to prosper, perceived acknowledgment, tendency towards and adaptability to interpersonal environment.

Success in any profession not only depends on professional mastery and skills but a person's mental state and psycho-emotional factors play an important role. Explaining PWB of teachers through various lenses reveal different dimensions. A few researches have linked PWB as accepting your own personality, a purposeful life, continuous progress and living with supportive relationships (Mercer, 2021). Mercer et al., (2020) reported that teachers with higher levels of PWB shows more empathy and engagement towards their students while teachers with extreme levels of emotional exhaustion shows critical behavior to the students. In a previous study by Chen (2024) teacher immunity has been shown as an active predictor English Language teacher's psychological well-being. If the teachers are provided with occasions to demonstrate autonomy, exhibit commitment, and control emotions via teacher education programs, can be fruitful in facilitating progression of their productive immunity (Noughabi et al., 2022). Given that teacher immunity has been considered context-based that plays a significant role in regulating emotions (Noughabi et al., 2022), It would be worthy to consider psychological well-being as the predictor of teacher immunity. As it is reported that teachers' immunity has found to be associated with their emotions and ability (Namaziandost & Heydarnejad, 2023), it is hypothesized that there could be ties between teacher immunity and psychological well-being. In a previous study by Chen (2024) teacher immunity has been shown as an active predictor English Language teacher's psychological well-being whereas in this research we aim to find out whether psychological well-being serve as a predictor of teacher immunity or not.

H₁: Psychological well-being has a significant impact on Teacher Immunity.

TEACHER PROFESSIONAL IDENTITY

The word "identity" is usually described as associating individuals to other members of a community and specifying their participation within that community (Vignoles et al., 2018). In the scholarly literature pertaining to education, teacher identity is regarded as teachers' consideration and presentation of themselves; it elaborates as how they perceive themselves as a

teacher, how much they are attached to their profession, the type of teacher they visualize themselves and similarly demonstrate themselves to others (Beijaard et al., 2004; D. Holland & Lachicotte, Jr., 2007). In the current study, teacher professional identity (TPI) is theorized as a composite formation of personal, social and contextual factors. Solari & Ortega (2022) presented a theoretical definition of TPI, by incorporating theoretical frameworks from different fields of study (psychology, anthropology, literature). Professional identity is one of the personality aspects that is dynamic and subject to change. Development of TPI is considered as a multifaceted and dynamic process that suggests creating relationship through communication and dialogue within the context of a certain culture. It is also asserted that TPI is shaped by an eloquent and expressive group of meanings in relation to the teaching profession which are formed as a result of a continuous process over time (Solari & Ortega, 2022).

One of the core element that lays its role in shaping teacher's professional identity is the amalgamation of their personal circumstances, personality features, knowledge and awareness, perceptions, attitudes, customs and values with the standards set by teacher education programs, schools and teaching profession as a whole (Beijaard et al., 2004). Teachers incorporate concepts of self-regulation self-efficacy, self-regulated and intrinsic job motivation in their personalities that eventually lead to develop their professional identity (Haghighi Irani et al., 2020). TPI is also linked with the commitment to their profession. Stryker & Burke (2000) argue that teacher identity can be anticipated through the medium that teacher follows to maintain their professional commitment. relationships based on one's teacher identity are carried out, and that, in turn, is manifested in how much time, energy and enthusiasm teachers spend on teacher activities (Stryker & Burke, 2000). A teacher's professional identity and their feelings of being competent and worthy can be achieved and intervened by making social connections with others.

Scholars argue between two approaches of teacher identity development: Narrative approach and Socio-cultural approach. In narrative perspective, teacher's personality is assessed on the basis of the stories relating to their life experiences that they tell about their teaching (Sreide, 2006). In the process, teachers compare themselves with others while narrating stories and formulating teacher identity. This approach not only tells who they are but also depicts what they would like to be as teachers (Monrouxe, 2010). On contrary, sociocultural approaches to identity, focus is on the social, cultural, historical and institutional perspectives with respect to teacher's realization of their work (D. Holland & Lachicotte, Jr., 2007). Teachers create and attach their identity not in seclusion, but in constant discussion with the means their role is

acknowledged, supported and compensated by other people in their working environment (Hermans & Gieser, 2011). It seems important to teachers that their identity is cherished by their community members and the extent to which it is endorsed by the members of neighbor communities (Penuel & Wertsch, 1995). As teachers share their contribution in multiple situations, the messages exposed in these contrasting contexts might come out to be opposing and conflicting, resulting in pressures in teachers' identity.

TPI is also affected by the social interactions. Yip et al. (2024) studied professional transition of immigrant teachers and reported that teachers' employment status, skills and knowledge, perceived social status, opinions and approaches regarding teaching are critical features of teacher identity that may foster or reduce the process of immigrant teachers' professional transition. Several researches have been conducted to test the predictors and resultants of professional identities. For instance, Fathi et al. (2024) studied TPI of foreign language teachers and reported that teachers' grit, professional identity, and foreign language teaching enjoyment were found to be direct associates of work engagement. TPI also reported as an influencing factor of resilience, awareness, teaching abilities, and intellectual capabilities (Huang & Benson, 2013). In another study, Namaziandost et al. (2024) researched that teacher immunity and teacher emotion regulation are significant predictors of TPI. Individuals with greater professional identity generally excel in their careers and achieve progress and self-realization as TPI affects their professional development and helps them with handling academic modifications, initiating new ideas and well-being into the classrooms, and being innovative in their instructive practice (Zhao, 2022).

METHODOLOGY

Current study aims to investigate the impact of perceived organizational support, psychological well-being and teacher professional identity on teacher immunity in teachers working in Pakistani government and primary schools. The study follows the quantitative approach. It involved 305 teachers (males 41.6% and females 58.4%) working in public and private educational institutions in Pakistan. These respondents were selected through convenience sampling. It is a non-probability sampling method that was used due to unavailability of large number of data pertaining to teachers working in the country. A few similar studies conducted in different socio-cultural environment also uses the same method (Polat & Erdem, 2023; Saydam, 2019; Zohrabi & Khalili, 2023). The data were collected during January 2024. Participation in this research was completely voluntary and confidentiality of data was assured.

For data collection a questionnaire was used consisting of pre-developed scales related to constructs used in the study. To measure Teacher Immunity, 39 item scale developed by (Hiver, 2017) was used. Psychological Well-being was measured by 8 item Flourishing Scale (FS) constructed by (Diener et al., 2011). Teacher Professional Identity was measured by (Pretorius et al., 2022) and Perceived Organizational Support was measured by 3 item short form of scale (Eisenberger et al., 1986). First part of questionnaire was based on demographics and then respondents were asked to answer the items on 5 point Likert scale ranging from strongly disagree to strongly agree.

DATA ANALYSIS

Following section contains the descriptive and data analysis of the responses gained from the teachers of Pakistan.

DEMOGRAPHICS

It shows the frequencies of respondents in terms of their Gender, Job and working experience.

TABLE 1: GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	127	41.6	41.6	46.2
	Male	178	58.4	58.4	100.0
	Total	305	100.0	100.0	

Table 1 shows the distribution of respondents in terms of their gender. 58% respondents are male, and 41% respondents are female.

TABLE 2: JOB EXPERIENCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5 years	52	17.05	17.05	17.05
	6-10 years	107	35.08	35.08	52.13
	11-15 years	71	23.28	23.28	75.41
	16 years and above	75	24.59	24.59	100.00
	Total	305	100.00	100.00	

Table 2 shows the distribution of respondents in terms of their Job experience. It can be seen that 17% respondents hold the job experience of less than 5 years, 35% respondents hold the job experience of 6-10 years, 23% respondents hold the job experience of 11-15 years, and 24% respondents hold the job experience of 16 years and above.

TABLE 3: NO OF ORGANIZATIONS SWITCHED

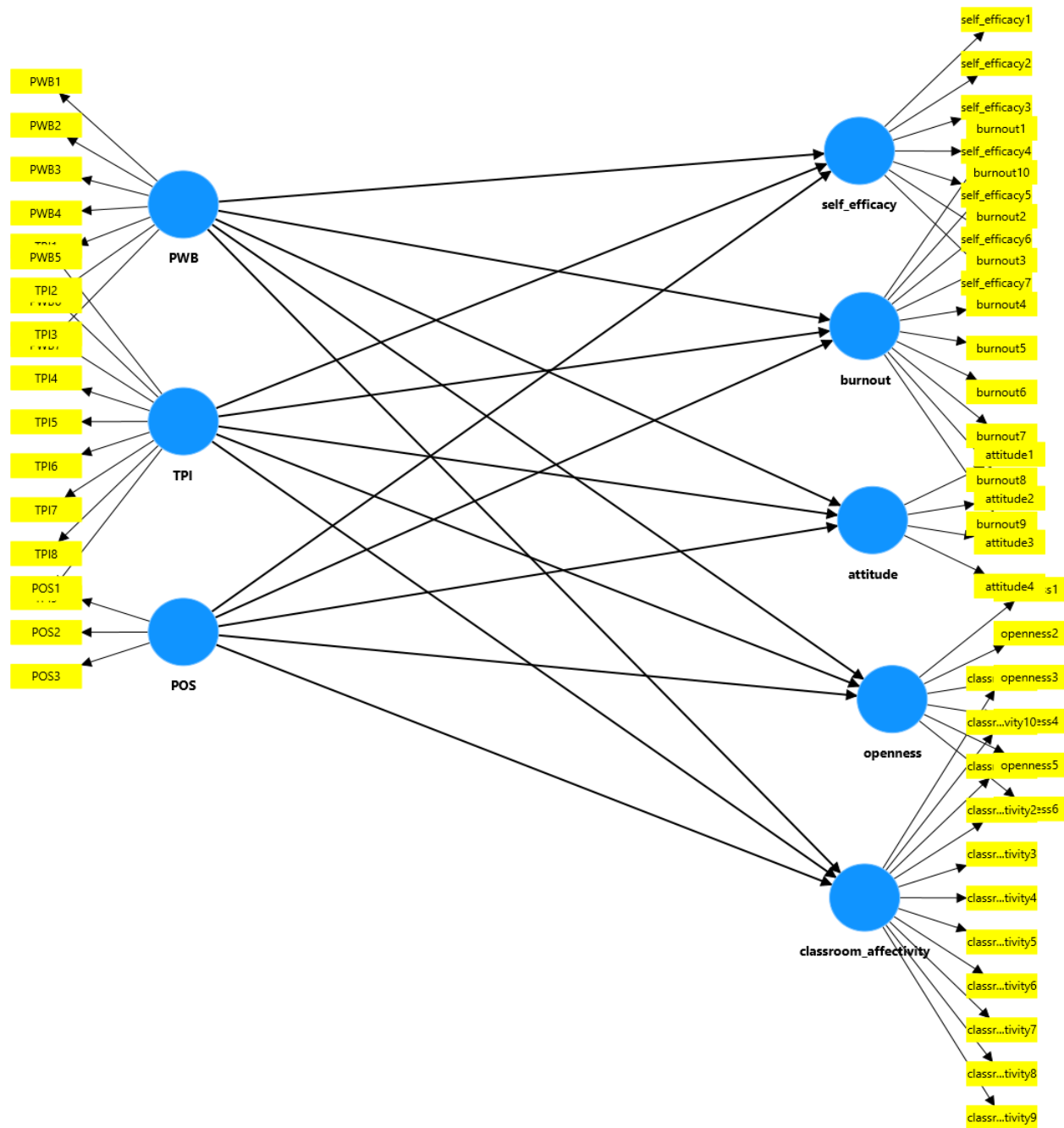
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	12	3.9	3.9	3.9
	1	38	12.5	12.5	16.4
	2	59	19.3	19.3	35.7
	3	148	48.5	48.5	84.3
	4 and above	48	15.7	15.7	100.0
	Total	305	100.0	100.0	

Table 3 shows the distribution of respondents in terms of their frequency of switching from one organization to other. It can be seen that 4% respondents have never switched their workplace, 13% respondents have switched their workplace one time, 19% respondents have switched two times, 49% respondents have switched their organization three times, and 16% respondents have switched more than four times.

TABLE 4: AGE GROUP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	31-35 years	31	10	10	10
	36-40 years	84	28	28	38
	41-45 years	66	22	22	59
	46-50 years	67	22	22	81
	Above 50 years	57	19	19	100
	Total	305	100	100	

Table 4 shows the distribution of respondents in terms of their age group. It can be seen that 10% respondents belong to 31-35 year age group, 28% respondents lie between 36-40 years, 22% respondents have their age between 41-45 years, 22% respondents belong to 46-50 years group, and 19% respondents have their age above 50 years.

FIGURE 1: MEASUREMENT MODEL ANALYSIS

RELIABILITY & VALIDITY

A measurement model serves the purpose of establishing the connection between observable variables and latent constructs, while also including assessments of reliability and validity (El-Den et al., 2020). Reliability evaluates the coherence and durability of measures across time, guaranteeing the trustworthiness of the outcomes. Validity assesses the precision and suitability of the model in capturing the desired concepts, instilling trust in the significance of the measures.

Reliability and validity are essential aspects of a measurement model, contributing to its strength and guaranteeing that it accurately measures and depicts the underlying phenomena of interest. Table 5 shows the reliability and validity of the constructs used in the study.

TABLE 5: LOC RELIABILITY & VALIDITY

	Cronbach's alpha	(rho_c)	(AVE)
POS	0.725	0.846	0.649
PWB	0.862	0.892	0.551
TPI	0.742	0.817	0.589
Attitude	0.736	0.733	0.597
Burnout	0.602	0.707	0.550
Classroom affectivity	0.708	0.717	0.565
Openness	0.818	0.737	0.582
Self-efficacy	0.703	0.719	0.550

TABLE 6: HOC RELIABILITY & VALIDITY

	Cronbach's alpha	(rho_c)	(AVE)
Immunity	0.634	0.628	0.681
POS	0.725	0.844	0.647
PWB	0.862	0.892	0.551
TPI	0.782	0.846	0.530

Cronbach's Alpha (α): This is an indicator of internal consistency that shows how well a construct's elements measure the same underlying idea (Tang et al., 2014). While somewhat lower values may be acceptable in some circumstances, a number above 0.7 is often appropriate for exploratory study.

Composite Reliability (rho_c): This is an additional internal consistency metric that is thought to be more reliable than Cronbach's alpha, especially in SEM (Hair et al., 2021). In general, values greater than 0.7 are acceptable.

Average Variance Extracted (AVE): This quantifies how much of the variance caused by measurement error is captured by a construct (Hair et al., 2021). An appropriate AVE is one that is more than 0.5, indicating that the construct itself accounts for more than half of the variation in the indicators of the construct.

POS and PWB have high reliability and validity, indicating that they are effective measures. TPI,

Attitude, Classroom Affectivity, and Openness demonstrate high dependability, with AVEs showing acceptable construct representation. Burnout and Self-Efficacy exhibit acceptable reliabilities, but their AVEs linger around the lower acceptable limit, suggesting possible areas for improvement in construct measurement. Overall, most constructs have sufficient to good reliability and validity, which supports their use in research; however, several might benefit from more development to improve measurement accuracy.

TABLE 7: LOC- FORNELL-LARCKER CRITERION

	POS	PWB	TPI	Attitude	Burnout	Affect	Openness	Self- efficacy
POS	0.806							
PWB	0.481	0.743						
TPI	0.054	0.082	0.623					
Attitude	0.158	0.375	0.349	0.630				
Burnout	-0.318	-0.217	-0.268	-0.170	0.387			
Classroom Affectivity	0.383	0.443	0.323	0.153	-0.291	0.406		
Openness	-0.244	0.015	0.238	0.014	-0.003	0.004	0.427	
Self- efficacy	0.324	0.194	-0.068	-0.165	-0.003	0.202	0.018	0.387

TABLE 8: HOC- FORNELL-LARCKER CRITERION

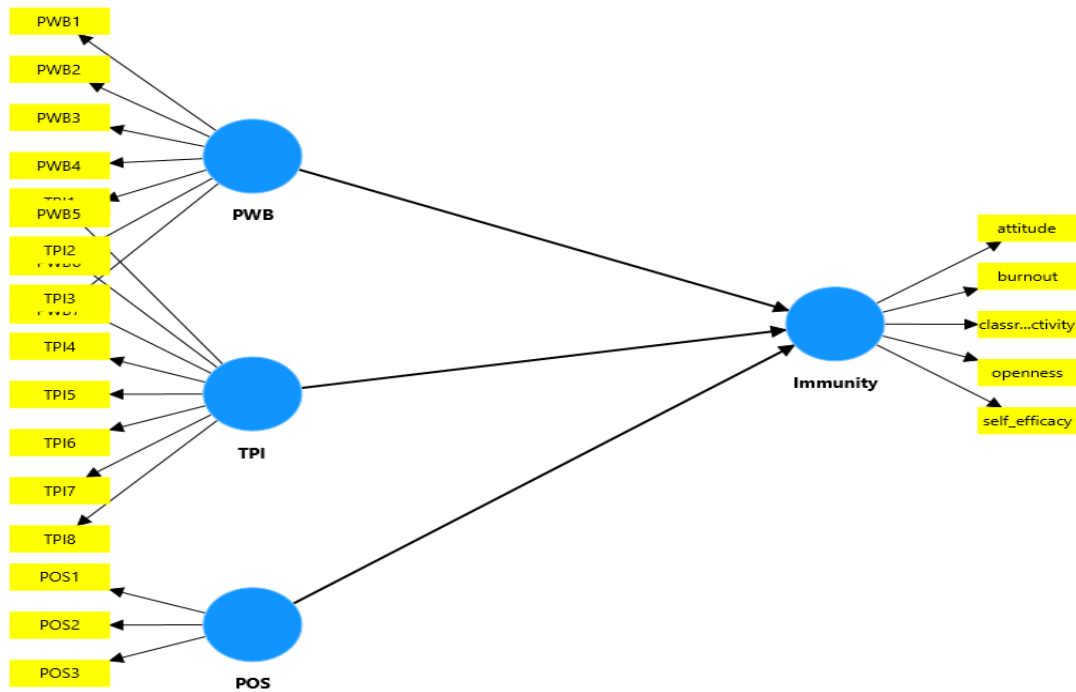
	Immunity	POS	PWB	TPI
Immunity	0.530			
POS	0.464	0.805		
PWB	0.545	0.479	0.742	
TPI	0.464	0.120	0.100	0.656

A technique for evaluating discriminant validity is the Fornell-Larcker Criterion, which verifies that a construct has a stronger correlation with its own indicators than with other constructs in the model (Hamid et al., 2017). This is accomplished by comparing the correlations between various constructs (off-diagonal values) with the square root of the AVE for each construct, which should show in the diagonal of the correlation matrix when constructs correlate with themselves. Table 7 shows the discriminant validity of the model. Compared to correlations with other

constructs (off-diagonal values), the square roots of the AVEs (diagonal values) are greater. This suggests that the discriminant validity of each concept is supported, as it shares greater variation with its own indicators than with other constructs.

STRUCTURAL MODEL ANALYSIS

FIGURE 2: STRUCTURAL MODEL



The evaluation of the interrelationships between variables in a system via equations or graphical representations constitutes structural model analysis. Endogenous and exogenous variables are distinguished (McCoach et al., 2013). Critical factors to bear in mind include causal relationships, assumptions, and identification. In order to ascertain model parameters, estimation techniques are employed.

TABLE 9: HYPOTHESIS ASSESSMENT SUMMARY

Hypothesis	Path	Coefficient	SD	T statistic	P values	Decision
H1	POS -> Immunity	0.227	0.068	3.357	0.001	Supported
H2	PWB -> Immunity	0.396	0.048	8.219	0.000	Supported
H3	TPI -> Immunity	0.398	0.048	8.237	0.000	Supported

PWB: Psychological Wellbeing, TPI: Teacher Professional Identity, POS: Perceived Organizational Support

The table summarizes the results of testing three hypotheses concerning the effects of Perceived Organizational Support (POS), Psychological Wellbeing (PWB), and Teacher Professional Identity (TPI) on teacher immunity.

H₁: Perceived Organizational Support (POS) => Teacher Immunity: With a favorable path coefficient of 0.227, Hypothesis 1 examines the relationship between Perceived Organizational Support (POS) and Teacher Immunity and it shows that Teacher Immunity increases by 0.227 standard deviations for every standard deviation rise in POS. With a p-value of 0.001, the association is statistically significant, confirming that POS considerably increases teacher immunity (Hollar, 2018). The positive path coefficient, which shows the considerable effect of POS on teacher immunity, emphasizes how crucial organizational practices are to promoting teachers' immunity. Teachers' immunity is directly correlated with how much they feel appreciated and supported by their organization, which is reflected in POS (Hascher & Waber, 2021). A strong immunity can be maintained by reducing stress levels through supportive activities, as persistent stress is known to compromise immunological function (Erskine & Fauquet-Alekhine, 2023). Teachers are more likely to be engaged and committed when they believe that their educational institution supports them (Vonderlin et al., 2023). It promotes favorable emotional states in addition to increasing work satisfaction. A joyful and involved teacher is also probably healthier, as positive emotions have been scientifically linked to better immunological responses (Alexander et al., 2021).

H₂: Psychological Wellbeing (PWB) => Immunity: With a favorable path coefficient of 0.396, Hypothesis 2 examines the relationship between Psychological Wellbeing (PWB) and Teacher Immunity. This shows that TI increases by 0.396 standard deviations for every standard deviation rise in PWB. With a p-value of 0.000, the association is statistically significant, confirming that PWB considerably increases teacher immunity. This suggests that supporting psychological health might be extremely important for enhancing their teacher immunity (Hascher & Waber, 2021). The significant path coefficient indicates a robust correlation between PWB and improvements in TI (Benitez et al., 2020). This link emphasizes how crucial it is to treat mental and emotional health in educational settings in order to improve teacher immunity as well as create a more upbeat and effective work environment.

H₃: Teacher Professional Identity (TPI) => Immunity: With a favorable path coefficient of 0.398, Hypothesis 3 examines the relationship between Teacher Professional Identity (TPI) and Teacher Immunity. This shows that TI increases by 0.398 standard deviations for every standard

deviation rise in TPI. With a p-value of 0.000, the association is statistically significant, confirming that TPI considerably increases teacher immunity. This suggests that teacher's ability to deal effectively with professional challenges might be considerably improved by bolstering their TPI (Sims et al., 2023). A strong sense of professional identity among teachers is thought to significantly impact their TI in addition to their job satisfaction and efficacy, as seen by the favorable path coefficient of 0.398, which shows a high correlation between TPI and immunity (Canrinus et al., 2012).

DISCUSSION

Studies examining the relationship between teacher immunity and organizational support, psychological well-being, and professional identity show notable benefits in each of the three areas. Each construct demonstrates how important these elements are for supporting teachers' immunity. Hypothesis 1's illustration of the positive relationship between perceived organizational support (POS) and teacher immunity highlights the significance of a supportive workplace. Strong organizational support is associated with improved teacher immunity, maybe because of less stress and healthier lifestyle choices (Bellingrath et al., 2010). According to this research, schools should prioritize fostering supportive environments through resources, acknowledgment, and interpersonal support, as these factors have a big impact on teachers' well-being and productivity (Freeman-Green et al., 2023). In educational environments, organizational support may take many different forms, such as providing sufficient resources for instruction and learning, recognizing the efforts and accomplishments of teachers, and fostering close bonds amongst staff members (Theodorio, 2024). Teachers typically feel less stressed when they believe that their efforts are appreciated and that they have the resources and assistance they need to carry out their jobs well (Abu-Rmaleh, 2020). Since long-term stress is known to impair immune function, immune health can be directly improved by lowering stress using constructive organizing techniques (Dhabhar, 2014). It has been discussed that access to resources for mental and physical health, such as wellness initiatives and medical services, might be one way this shows up (Coulombe et al., 2020). Programs that support mental health and work-life balance help teachers have better lives overall, which strengthens their teacher immunity. Teachers may be more inclined to adopt healthy habits in settings where there is a strong sense of organizational support (Hascher et al., 2021). In supportive environments, there is a greater prevalence of regular physical exercise, nutritious eating, and participation in health and wellness initiatives. Furthermore, teachers' ability to handle the pressures of their jobs is

improved when they receive emotional and psychological support from educational institutions (Maas et al., 2021). In summary, there is a significant and complex relationship between perceived organizational support and teacher immunity. Educational institutions may greatly improve the physical health and immunological responses of their instructors by creating a nurturing and supportive environment (Muntaner-Mas, 2024). In addition to helping the instructors personally, it also enhances the learning environment overall, which increases teacher retention and produces better teaching results

The results of Hypothesis 2 demonstrate the close relationship between psychological well-being and teacher immunity, highlighting the importance of mental health and well-being as a predictor of teacher immunity. Emotional equilibrium, life satisfaction, and a sense of fulfillment are all components of psychological well-being, which can have a direct effect on physical health via behavioral and biological pathways (Pressman et al., 2013). For example, improved immune system modulation and lower levels of stress hormones are frequently linked to higher levels of well-being. Additionally, instructors who feel better about themselves are more likely to adopt healthy habits like regular exercise and a balanced diet (Cents-Boonstra et al., 2021), which not only improves their biological immunity but also acts as an activator to their mental health that ultimately influence their teacher immunity positively. Such a significance of this association highlights the need for educational institutions to put in place procedures and policies that support employees' mental and emotional well-being. These efforts can help making mental health services accessible, putting stress-reduction plans into place, and cultivating a positive school climate that respects and encourages teachers' well-being. By taking these steps, schools may improve the quality of life for their teachers and, at the same time guaranteeing favorable teacher immunity

According to Hypothesis 3, immunity is positively impacted by a stronger TPI. This implies that teachers have better outcomes when it comes to combat professional hurdles if they have a strong and positive sense of who they are as professionals. By offering professional development opportunities and cultivating an environment where teachers feel appreciated for their distinct roles and contributions, schools may promote TPI (Sims et al., 2023). More than simply having faith in one's ability to teach, a strong teacher professional identity includes a feeling of acceptance, acknowledgment, and purpose in the classroom (Lai & Jin, 2021). A teacher's self-concept in relation to their professional job, including the values, beliefs, and actions that set them apart in their classroom, is referred to as their teacher professional identity

(Rodrigues & Mogarro, 2019). Teachers who have a strong sense of who they are as professionals may be less stressed and be more satisfied with their jobs, which can boost their immunity (Toropova et al., 2021).

CONCLUSION

To sum up, this study has shown how important and intertwined Teacher Professional Identity (TPI), Psychological Wellbeing (PWB), and Perceived Organizational Support (POS) are in boosting teacher immunity. The result of every hypothesis highlights the significant influence that these elements have on teacher immunity. Since, POS has a significant impact on teacher immunity and is essential in creating an atmosphere in which they may flourish; it can't be ignored that how crucial it is to have a supportive work environment that actively lowers stress and encourages educators to have better strategical approach to deal with stress and challenges. Likewise, improved PWB and its direct impact on TI indicates that mental health programs ought to be a top concern in educational establishments. The creation of a loving and caring school atmosphere, stress management, and emotional support must all be covered in these programs. Furthermore, improved teacher immunity is substantially correlated with a strong Teacher Professional Identity. This suggests that schools need to offer chances for ongoing professional development that assist instructors establish a strong sense of their professional identities in addition to improving their teaching abilities. When taken as a whole, these observations support an all-encompassing strategy for managing educational institutions that views teacher immunity as essential to the larger educational goal. They must consider tactics that support educators in fortifying their sense of self as professionals (Kim et al., 2019). Schools, colleges, universities and other educational institutions may establish healthier, more resilient learning environments by improving teacher immunity through identity-building exercises, mental health services, and organizational support. A more favorable, fruitful educational atmosphere and improved educational outcomes for pupils follow from this. Pakistani Educational Industry; policymakers, administrators, and school leaders are therefore urged to take these aspects into account when developing their operational procedures and strategic plans. By doing this, they will create an atmosphere where educational greatness may thrive in addition to enhancing the health and happiness of their instructors.

RECOMMENDATIONS

First and foremost, educational institutions in Pakistan must improve organizational support. This may be accomplished by making certain that educators have access to the resources and

equipment needed for efficient instruction (Camarero-Figuerola et al., 2022). Additionally, regular recognition, prizes, and incentives should be used to honor instructors' accomplishments and hard work. To lessen stress and avoid burnout, schools can also adopt rules that support a good work-life balance, such flexible scheduling and mental health days (Pascoe et al., 2020). Second, since psychological wellness has a direct effect on teachers' immunity, it is imperative to promote accessible mental health services, such as counseling and stress management classes designed especially for educators, should be established by institutions. It's also critical to create a school culture that supports teachers' emotional well-being and offers a secure place for them to get support when they need it. Teachers' psychological wellness can also be supported by providing professional development sessions that emphasize stress management strategies, emotional resilience, and good lifestyle choices (Hascher & Waber, 2021). By creating Professional Learning Communities (PLCs), educators may support one another's professional development by exchanging ideas and working together on tactics. Frequent team-building exercises can also help employees feel more supportive of one another. Last but not least, it is imperative that schools continually assess and modify their POS, PWB, and TPI policies. By establishing feedback systems that include instructors in the assessment process, tactics may be modified in response to their feedback and evolving demands, guaranteeing that the measures continue to be applicable and successful (Hascher & Waber, 2021).

LIMITATIONS

Although the study completed successfully, there are a few limitations that should be taken into account; this study offers important insights into the ways that psychological well-being (PWB), teacher professional identity (TPI), and perceived organizational support (POS) affect teacher immunity. First, the generalizability of the results may be impacted by the sample's size and variety. The results may not be representative of larger teacher populations as the study only focused teacher community in Pakistan. Furthermore, increasing the sample size could improve the data's statistical validity.

Another drawback is the use of a cross-sectional research design, which limits the capacity to prove causation between the variables even though it works well for monitoring variables at one time. More conclusive information on the ways in which POS, PWB, and TPI changes affect teacher immunity over time may be obtained by longitudinal studies. Additionally, using self-reported data to measure POS, PWB, and TPI raises the possibility of biases since participants may give answers that they believe to be socially acceptable or that result from erroneous self-

evaluation (Flom et al., 2012). Including external evaluations or objective measures might allay these worries and improve the quality of the data.

Moreover, the study could not have taken into consideration all the factors that could affect teacher immunity, such as personal stresses, health issues, or particular school environmental characteristics. The connections examined in the study may be impacted by these unmeasured factors, which might serve as confounders. Last but not least, the methodology for evaluating immunity is important because the complexity of the immune system and the range of potential measuring techniques might greatly affect results. The results of the study might be replicated and validated with the help of clarification on the measurement of immunity. Future studies that address these constraints may improve knowledge and help create more successful educational methods and policies that are suited to improving the efficacy and well-being of teachers.

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