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Psychological Flow and Its Relationship with Psychological Stress among Elementary Education Teachers

التدفق النفسي وعلاقته بالضغوط النفسية لدى أساتذة التعليم الابتدائي

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Abstract:

This study investigates the correlation between psychological stress and flow, as well as measures the prevalence of both constructs among elementary education teachers. It emphasizes the importance of exploring psychological flow's positive effects and the widespread issue of psychological stress within this demographic. Using a descriptive correlational approach, hypotheses were examined on a purposively selected sample of 51 teachers. The Psychological Flow Scale (Jackson & Marsh, 1996) and the Psychological and Work-related Stress Scale (Ali Qwaidery, 2011) served as the primary instruments for data collection. Results indicate a significant negative correlation between psychological flow and stress, with elementary education teachers exhibiting low psychological flow and high stress levels.

Keywords: Psychological Flow, Work-related Stress, Elementary Education Teachers.

ملخص:

تستكشف الدراسة الحالية العلاقة الترابطية بين الضغط النفسي والتدفق النفسي، إلى جانب تقييم مستويات كلا البناءين بين معلمي التعليم الأساسي. مع التركيز على أهمية هذه الفئة الديموغرافية، تركز الدراسة على الجانب الإيجابي للتدفق النفسي والمشكلة السائدة للضغط النفسي ضمن هذه المجموعة. باستخدام منهجية وصفية ترابطية، اختبر البحث فرضيات على عينة مختارة تقدر ب 51 معلمًا. تم جمع البيانات باستخدام مقياس التدفق النفسي (جاكسون ومارش، 1996) ومقياس الضغط النفسي والمهني (علي قويدري، 2011). كشفت النتائج عن مستوى منخفض من التدفق النفسي ومستوى عالٍ من الضغط النفسي بين معلمي التعليم الأساسي، إلى جانب وجود علاقة سلبية ذات دلالة إحصائية بين التدفق النفسي والضغط.

الكلمات المفتاحية: التدفق النفسي، الضغط النفسي المهني، أساتذة التعليم الابتدائي.

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1- Introduction:

The teaching profession is highly esteemed for its crucial role in education, imparting knowledge, and combating ignorance. Offering both financial and psychological rewards. Yet, it also introduces significant stress, particularly for elementary teachers facing high psychological pressures. Stress, while inherent in life and capable of revealing human potential and motivation, should be seen in a balanced perspective. It can spur individuals towards growth and balance but can become overwhelming if excessive, surpassing coping abilities (Al-Khalidi, 2016).

The concept of stress has been thoroughly researched, with McGrath defining it as the sensation stemming from an imbalance between demands and capabilities, often paralleled by situations of failure. This discrepancy in meeting demands serves as a potent source of psychological stress (Milhem, 2015).

Work-related stress arises from the interplay between high job demands and limited control over work, with teachers often attributing external factors as major stress sources in their profession (Maroof Al-Douri, 2014). Misconceptions and negative beliefs among teachers about their control and contribution to work stress can impair performance and increase stress levels, as they might ignore their influence on managing these stressors, leading to inefficient coping strategies.

Mohd Ashan et al. (2016) identified key stress factors for high school teachers as student misbehavior, workload, and supervisory support, with the latter being crucial in stress management. The match between an individual's skills and job demands significantly affects stress intensity, where mismatches can heighten psychological stress (Milhem, 2015).

Studies consistently show high levels of psychological stress among teachers across various educational levels, as evidenced by research from Ait Hammouda et al. (2008), Mokdad and Khalifa (2012), Al-Ahsan (2015), Saraya (2018), Ghleit (2019), and Shilpa (2021), underscoring the widespread nature of this issue.

Agyapong et al. (2022) highlighted how high levels of burnout, stress, anxiety, and depression in teachers can lead to job dissatisfaction, absenteeism, and high turnover rates. Similarly, Xiabo et al. (2014) found a significant link between work stress, self-efficacy, and burnout, emphasizing the mediating role of self-efficacy. Prolonged stress in teachers has been linked to various health issues, including high blood pressure and heart diseases, as documented by studies like Qwaidery's (2011), which confirmed the association between psychosomatic disorders and stress among teachers. This underscores the grave risk psychological stress poses to physical health, potentially leading to chronic diseases or even death.

The stress affecting teachers not only impacts their health but also their professional life, reducing motivation, increasing absenteeism, and causing burnout, which could force them out of the

profession (Washa and Ramzi, 2008). This presents a significant threat to the sustainability of teaching as a career.

However, positive psychology suggests that while stress can have detrimental effects on health, positive emotions can promote psychological well-being and vitality, enhancing creativity and building resilience. This resilience allows for effective coping with and confronting of life's challenges, illustrating the power of positive emotions in countering stress's adverse effects.

Mihaly Csikszentmihalyi introduced the concept of psychological flow, a state of deep engagement and positive emotional experience during activities, which can occur in various settings like work or school. This state is associated with challenge, enjoyment, and effective navigation of situations, enhancing positive engagement (Naily, 2021, p. 27). The teaching profession, in particular, benefits from psychological flow, leading to reduced fear and boredom, increased self-confidence, creativity, and motivation, thereby improving teachers' quality of life and performance (Al-Sawafi, 2019).

Acknowledging positive traits like psychological flow is crucial for managing stress and crises. Research by Xiaoxiao (2022) demonstrated that psychological flow enhances teaching well-being through work passion. Bouchard (2018) indicated flow can reduce depression and anxiety, with regular experiences of flow associated with lower levels of these conditions. Conversely, a lack of flow may lead to increased anxiety, which in turn can block the experience of flow (Rateb, 2019). Aust et al., (2022) have shown a negative correlation between flow and burnout symptoms, suggesting flow's protective effect against burnout, while also noting that burnout can inhibit the experience of flow. This highlights the importance of a balance between challenges and skills and the role of reduced anxiety in achieving flow, which in turn enhances performance in challenging tasks.

Our study focuses on contrasting variables: psychological flow, representing individual strength and showing negative correlations with anxiety and stress, but positive correlations with well-being, happiness, and job satisfaction; and psychological stress, a risk for elementary education teachers who are vital in child development and role modeling. Thus, our main goal is to explore psychological flow and stress levels among these teachers and their interrelationship. Consequently, the research questions guiding our study are:

- How prevalent is psychological flow among elementary education teachers?
- How prevalent is psychological stress among these teachers?
- What is the relationship between psychological flow and psychological stress among them?

We hypothesize that psychological flow is low, and psychological stress is high among elementary education teachers, expecting a negative correlation between these variables.

2- Methods:

2.1. Research Design:

Considering the focus of our study, we adopted a descriptive correlational methodology. This approach aims at depicting phenomena as they manifest in reality and at analyzing the correlation between variables.

2.2. Study Sample:

Our study sample involved 51 teachers, both male and female, from four elementary schools: Mouloud Bouyaqoub, Ben Moghdam Dziri, Boujemaa Mohamed, and Tabraqouqt Mohamed.

2.3. Measurement Instruments:

Psychological Flow Scale:

Adapted by Ben El Sheikh Rabia in 2015 from Jackson and Marsh, this scale includes 36 items spread over nine core dimensions. Responses to scale statements, all of which are phrased positively, are given through a five-point Likert scale (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), with corresponding weights (05-04-03-02-01).

Psychological and Work-related Stress Scale:

Developed by Qwaidery Ali in 2011, this scale features 57 items across eight dimensions: job load, role ambiguity, role conflict, work relationships, administrative pressures, career development, physical work environment, and student pressures. Responses are noted on a five-point scale (Strongly Agree, Agree, Unsure, Disagree, Strongly Disagree), with scores ranging from 57 to 285. High scores across the scale's dimensions indicate significant work-related stress.

2.4. Statistical Analysis:

To analyze the data and test the hypotheses, we used the Statistical Package for the Social Sciences (SPSS Version 26), utilizing the following statistical methods:

- T-test for a single sample to determine the levels of the research variables.
- Pearson correlation coefficient to explore the relationship between the research variables.

3- Results and Discussion

3.1. Results of the First Hypothesis

The first hypothesis suggested that elementary education teachers have a low level of psychological flow. We tested this using a one-sample t-test, which revealed a mean Psychological Flow score of 105.39, with a standard deviation of 11.92. Compared to the test mean of 108, our sample mean was significantly lower, as evidenced by a t-test value of 21.201, which is well above the critical value of

2.01 for 50 degrees of freedom at a 0.05 significance level. This confirms our hypothesis of a low level of psychological flow among elementary education teachers.

Table 1. One-sample T-test Results for the Psychological Flow Scale

Variable	Sample Size	Sample Mean	Standard Deviation	test Mean	t-Value	df	Sig.
Psychological Flow	51	105.39	11.92	108	21.201	50	.05

This result aligns with the findings of Khajaval & AbdolrZapour (2022), who investigated the psychological flow experience among English as Foreign Language (EFL) teachers in online settings, revealing a restricted psychological flow experience.

The diminished psychological flow in elementary education teachers may be ascribed to a decline in one or more dimensions of psychological flow as outlined by Csikszentmihalyi. This includes the imbalance between challenges and skills, where an insufficiency of necessary skills to meet imposed challenges inhibits psychological flow. The extensive responsibilities and overwhelming tasks confronting teachers prevent the experience of psychological flow. Similarly, simplistic challenges and monotonous tasks foster boredom and disengagement, contributing to the absence of psychological flow.

Moreover, the lack of immersion in performance, as teachers fail to engage fully with tasks due to distractions such as student misconduct, administrative pressures, and breaks in concentration and mind wandering, limits psychological flow. The incapacity to detach from extraneous concerns, dwelling on past and future events concurrently, further diminishes psychological flow. Ambiguous objectives and the absence of clear goal setting in alignment with their abilities and skills, both prior to and during the teaching process, also detract from psychological flow. Furthermore, the perceived lack of control over classroom management and student engagement undermines teacher performance.

An absence of intrinsic motivation diminishes the likelihood of experiencing psychological flow, as teachers await external rewards and support, which frequently fail to materialize, engendering frustration and diminishing job satisfaction.

Reduced psychological flow dimensions significantly impede psychological flow attainment. This issue may also arise from mismatches in the framework promoting this experience. The educational environment of teachers, lacking necessary conditions for psychological flow as outlined by Arnold (2005), is crucial. Conditions like teacher autonomy, social support, and practice supervision greatly

affect flow likelihood. Teachers in supportive environments are likelier to achieve psychological flow (Ben El Sheikh, 2015).

Consequently, reduced teacher motivation and suboptimal teaching conditions—like quietness, climate control, seating, device access, and overcrowding—plus a lack of resources like social support, autonomy, and supervision, may decrease psychological flow. The low psychological flow levels observed may also be due to missing positive personality traits. Positive personality traits may predispose teachers to higher psychological flow levels. Research linking psychological flow to positive attributes supports this. For example, Al-Juhani and Al-Ahmadi (2022) found a positive relationship between psychological flow and resilience, suggesting they enhance each other. Similarly, Aziz (2021) reported a positive correlation between psychological flow and resilience, indicating these traits may be lacking in elementary teachers, contributing to lower flow levels.

Furthermore, our study's findings contrast with other studies reporting higher psychological flow levels in various educational settings. For example, Ma'abreh and As-Safasfeh (2021) observed high flow levels among faculty's teachers, and Al-Anzi and Nazal (2017) found moderate flow levels among female students at Jouf University. Additionally, Alik et al., (2015) showed university students experience significant flow, unlike Salanova et al., (2006), which found teachers often have higher flow levels than tile workers. These disparities underscore the complexity of psychological flow in education and the need for further investigation into factors influencing flow among elementary teachers.

3.2. Results of the Second Hypothesis

The second hypothesis proposed that elementary education teachers experience a high level of psychological stress. Testing this through a one-sample t-test, we found the mean Psychological Stress Scale score to be 180.70, with a standard deviation of 39.27. This score exceeds the test mean of 171, indicating a significant difference with a t-test value of 2.872—above the critical value of 2.01 for 50 degrees of freedom at a 0.05 significance level. Thus, we confirm our hypothesis of a high level of psychological stress among the teachers.

Table 2. *One-sample T-test Results for the Psychological Stress Scale*

Variable	Sample Size	Sample Mean	Standard Deviation	test Mean	t-Value	df	Sig.
Psychological Stress	51	180.70	39.27	171	2.872	50	.05

Elevated stress levels in teachers stem from challenging work conditions, including problems and pressures such as overcrowded classrooms (often over forty students), student misbehavior, and disinterest, which complicate management and progress monitoring. Additionally, burdens like administrative tasks, supervising non-academic activities, and a lack of teaching tools contribute to considerable psychological stress.

Our findings align with studies by Qahqooh (2019), Kararji and Yakhlef (2022), and Xiaojuan et al. (2023), which found high stress levels among teachers due to excessive job demands. Adamson (1975), cited by Laiss (2012), and Askar's research further support the significant impact of increased responsibilities and fluctuating role demands on teacher health. However, aligning job demands with teachers capabilities can greatly reduce stress, highlighting the need for educational institutions to find a balance that mitigates stress's adverse effects. Teachers encounter stressors stemming from their responsibility to manage fluctuating workloads and their capability to navigate challenges within their professional environment. Those who feel disabled and lack confidence in their decision-making abilities are found to be more vulnerable to stress.

Contrary findings are presented in studies by Joabi (2016), Boutayeb and Beh (2021), and Altaf & Bhat (2012), which reported lower levels of psychological stress among secondary education teachers. The divergence between the outcomes of the current study and those of previous research regarding the levels of psychological stress could be attributed to various factors. These include the size of the sample studied, the dynamic nature of stress sources across different settings and times, disparities in working conditions internationally and temporally, differences in psychological traits among samples, the motivating frameworks variability across countries, the number of students per institution, and the influence of educational programs. All these elements could affect the degree of psychological stress experienced by teachers.

3.3. Results of the Third Hypothesis

The third hypothesis examined the relationship between psychological flow and stress among elementary education teachers, suggesting a negative correlation—where increases in psychological flow would lead to decreases in psychological stress, and vice versa. This is based on the idea that psychological flow, marked by deep engagement and enjoyment, can mitigate stress by enhancing involvement and satisfaction in work.

Employing Pearson's correlation coefficient, we found a correlation value of -0.45 between psychological flow and stress, significant at the 0.01 level. This confirms the hypothesis, indicating that lower levels of psychological flow are associated with higher levels of stress among teachers.

Table 3. Pearson Correlation Coefficient between Psychological Flow and Psychological Stress

		Psychological Stress
Psychological Flow	Pearson Correlation	- .45
	Sig. (2-tailed)	> .01
	N	51

The findings can be explained by the inherent incompatibility between the characteristics of psychological flow and the nature of psychological stress. Notably, the balance between challenges and skills is critical for the manifestation of flow, contrasting sharply with psychological stress, which arises from an imbalance between external demands and the individual's capacity to meet these demands. Our research identified a prevalence of high psychological stress coinciding with diminished psychological flow.

This negative correlation is further supported by the distinct emotional outcomes associated with each state; psychological flow is linked to positive emotions such as happiness, well-being, and engagement, whereas psychological stress is characterized by heightened levels of anxiety, frustration, sadness, and exhaustion.

Drawing from the concept of psychological flow, a teacher may encounter three scenarios: first, anxiety and fear of failure due to insufficient abilities and skills; second, boredom and indifference resulting from high skills facing low, repetitive challenges; and third, a state of flow marked by euphoria and a drive for excellence and creativity, achieved when a teacher's skills are well-matched with the challenges presented (Al-Mousawi & Al-Shatti, 2016). The conclusion of a negative correlation in our study suggests that the first scenario, where anxiety and pressure from low abilities and skills coincide with reduced psychological flow, is prevalent.

Additionally, our findings are consistent with Regab (2022) and Poormahmood et al. (2016), which verified that psychological flow can be predicted through positive coping strategies for psychological stress. These studies further highlighted that Work-related stress contributes to deteriorating mental health and reduced happiness among elementary education teachers, thereby positioning psychological stress as a detrimental factor often linked to a general decline in positive attributes.

4- Conclusion

The study reveals that elementary teachers experience low levels of psychological flow and high levels of work-related stress, with a clear negative correlation between these factors: higher stress leads to lower flow. This underscores the critical need for psychological support to foster a helpful work environment for teachers. To address these findings, we recommend:

- Conducting empirical research to identify drivers of psychological flow in teachers.
- Investigating the components of psychological flow to determine which can be most effectively enhanced, and exploring strategies to facilitate their stimulation.
- Initiating training programs and enhancing both tangible and intangible rewards for teachers, aimed at boosting psychological flow in their work environment.
- Focusing on the psychological well-being of teachers, recognizing its impact on their performance, their students, and the broader educational setting.
- Encouraging educational policymakers to devise and implement strategies to reduce the impact of stress on teachers.

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