

Coping strategies among teachers: A Comparative Study of Coping Strategies Across Different Educational Stages in sidi bel abbes)

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Abstract:

This study aimed to identify the level of coping strategies among teachers at different stages of education, and to explore differences in these strategies based on teachers' educational levels. A descriptive approach was employed to achieve the study's objectives, with a sample of 177 teachers distributed across various educational stages (66 secondary school teachers, 59 middle school teachers and 52 elementary school teachers). Data were collected using the Coping Strategies Scale developed by Lotfi Abd Al-Baset Ibrahim (1994). The researcher formulated the following questions:

What is the level of coping strategies among teachers across different educational stages?

Does the difference in the assigned educational stage correspond to a significant difference in coping strategies among teachers?

After conducting statistical analyses on these questions, the researcher reached the following results:

Regarding the first question, the levels of strategies adopted by teachers to alleviate stress varied. These levels were ranked by comparing the sample's mean with the theoretical mean. The first rank comprised positive strategies, such as directed patience, positive thinking, seeking information, turning to religion and reinterpretation. The second rank included cognitive withdrawal, emotional venting, acceptance and negativity, as well as self-blame. The third rank was assigned to the denial strategy.

In response to the second question, it was found that teachers assigned to elementary education used negative strategies involving negativity, self-blame and acceptance more frequently than secondary school teachers.

Based on these results, the following recommendations are proposed to benefit teachers, particularly those in elementary education: training sessions on coping strategies; a reduction in teaching hours and the number of students in the classroom; and participation in extracurricular activities.

Keywords: *Strategies, coping, teachers, secondary education, middle education, elementary education*

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1.Introduction:

The focus on solving problems, handling stress and confronting it has become one of the goals of modern education. This has led researchers to study ways of coping with stressful events and situations, managing them and adapting to them, as well as investigating the factors associated with these processes. Thus, strategies for coping with crises and stressful situations, and adapting to them, are fundamental aspects of adaptive behaviour and personality (Ragab Ali Shaaban, 1995, p. 11).

In our study of the theoretical literature on coping strategies, we identified several terms that describe an individual's response to stressful situations. One of the most recognised concepts is 'coping' in English, which corresponds to 'stratégie d'adaptation' in French and 'استراتيجيات التكيف' in Arabic (Tigza Amhamed, 1991; Bashir Battah, 2003). Some refer to it as 'stress-coping processes' (Lotfi Abd Al-Baset Ibrahim, 1994). Ragab Ali Shaaban refers to these as coping and adjustment strategies, while others describe them as coping skills: learned patterns of adaptive behaviour that typically require effort and are used flexibly as needed in stressful situations.

In our study, we employed the concept of coping strategies, referring to the ongoing, dynamic process through which an individual aims to change their behaviour in order to establish a more harmonious relationship with their environment. This involves the planned coordination of means, which in our research refers to the cognitive processes, activities and procedures that individuals adopt and select from a range of alternatives.

2. Problem Statement:

The phenomenon of stress has become a part of our daily lives, and a certain level of stress can be necessary for successfully performing our tasks, provided it does not exceed our coping capacities. This stress helps us utilize our potential effectively to achieve the necessary adaptation to life. Allen (1983) notes that an individual's exposure to stressful situations can have a positive impact that drives them toward self-actualization, but it can also have a negative effect that hinders them from achieving their goals and interacting with others, leading to psychosomatic symptoms and other aspects of functional impairment (Awad, 2001, p. 24).

Significant exposure to stress can affect an individual's mental, physical and emotional health, as well as their interactions with their environment. Consequently, individuals must accept these stresses and employ various coping strategies. These are efforts made by individuals to relieve tension and create new conditions for confronting situations at all stages of life (Karim & Zwaq, 2020, p. 31).

Lazarus and Folkman (1984) view coping strategies as attempts by individuals to avoid stress (Zuhara et al., 2016, p. 2). Regardless of their theoretical orientations, educational and psychological studies agree on the importance of teachers in the educational process, as they play a crucial role in determining its nature, content, and effectiveness. Teachers are at the core of this process due to the significance of their role. In this regard, Muhammad Ahmed Karim (2003, p. 75) states that 'the teacher is one of the most influential forces in building civilisation; it is their responsibility to convey knowledge and experiences that lead to growth and subsequently modify and improve behaviour'. They are also trainers and educators of personality, responsible for developing the entirety of human character.'

Traditionally, the focus on the cognitive aspect of the teacher has overshadowed the psychological and social dimensions of their behavior. Theories of organizational behavior have emerged as a response to the neglect of these aspects in the workplace, emphasizing the human and social side of workers in general, the principles and values they hold, and what drives their behavior within organizations, affecting their behavioral outcomes.

Modern education has benefited from developments in organisational behaviour, resulting in changes and advancements in educational inputs, processes and outputs. In this context, Mohsen Ali Atiyah (2008, p. 15) asserts that, “in light of the modern concept of education, the focus on cognitive education is no longer acceptable, as an individual’s personality encompasses cognitive, emotional and skill-related domains”. When the learner is the target of the educational process, this attention should extend to all aspects of their personality’. Thus, a teacher’s adequacy is no longer measured by how much content they can impart to their students, but by their ability to produce results, influence learners’ cognitive structures, modify behaviour and develop personalities holistically, encompassing knowledge, values and skills.

Given these various situations, which involve multiple psychological, physical and cognitive stresses, teachers must adopt strategies to alleviate these pressures in order to maintain their mental and physical well-being, and perform their assigned tasks effectively.

From this perspective, the current study aims to investigate the coping strategies of a sample of teachers across multiple educational stages, posing the following questions:

1. What level of coping strategies do teachers adopt across different educational stages?
2. Does the educational stage assigned to a teacher correspond to a significant difference in their coping strategies?

2. Objectives of the study:

The current study aims to reveal the level of strategies adopted by teachers at different stages of education. It also seeks to identify differences in strategy levels based on assigned educational stages.

3. Importance of the study:

The importance of this study can be summarised as follows:

- To understand the coping strategies of teachers at various stages of their careers.
- The results of the study contribute to a clear and practical understanding of coping strategies among teachers.
- The theoretical literature presented in this study may provide researchers with new knowledge.

4. Procedural concepts of the study:

Coping strategies: These are the processes or behaviours adopted by teachers to manage or reduce the intensity of stressful situations. This was assessed using a scale developed by Dr Lotfi Abd Al-Baset Ibrahim containing a set of 11 processes, including:

- negativity and self-blame
- Cognitive withdrawal
- Seeking information
- Reinterpretation
- positive thinking
- Turning to religion

Emotional venting

- Acceptance

Directed patience

- Denial

- Active confrontation

For the purposes of this study, coping strategies are defined as the score obtained by the teacher on the coping strategies questionnaire.

5. Theoretical framework:

Over the years, interest has grown in the ways in which individuals avert the daily dangers they face. Psychologists refer to these strategies as ‘coping strategies’. When individuals employ these strategies, they respond in ways that help them to avoid, escape from, or reduce the intensity of stressful situations in order to achieve balance.

5.1 Nature of Coping Strategies: Nature of Coping Strategies:

Coping strategies are considered to be an individual’s selection of alternatives that they perceive as being the most suitable for their abilities in confronting stressful situations. Ben Taher Bashir (2005), for example, argues that coping strategies are the distinctive methods individuals use to deal with the demands of their physical and social environments. They reflect an individual’s approach to facing life’s challenges and sources of anxiety.

Saad Al-Imara (2001) states that coping with stress involves strategies that vary from person to person. In this context, Perluigui Graziani et al. (2005, p. 77) note that coping refers to an individual’s variable and stable cognitive and behavioural efforts to change and control internal or external demands, or differences between them resulting from the relationship between the individual and their environment, which they perceive as exceeding their personal capabilities.

The Large Dictionary of Psychology defines coping as an active process through which individuals assess their abilities and potential to confront life, particularly in managing and dealing with stressful situations. In the Basic Dictionary of Psychology, the term ‘coping’ refers to the methods of dealing with and controlling a stressful situation. Responses may be direct, such as eliminating the source of threat and danger, or they may be mitigative, such as reducing the perceived danger by denying the situation or resorting to medication. Coping is fundamentally a psychological mechanism that influences the nervous and endocrine systems (Hakima et al., 2018, p. 87).

Researchers view coping strategies as the processes or behaviours adopted by teachers to adapt to or reduce the intensity of stressful situations. These are assessed using a scale developed by Lotfi Abd Al-Baset Ibrahim, which includes 11 processes:

- **Negativity and self-blame:** This strategy encompasses the psychological aspect of passive coping and resistance. It manifests as a lack of effort by the individual to deal with stress, often resulting in excessive engagement in other activities, such as sleeping, watching television or becoming preoccupied with matters unrelated to the problem, in an effort to alleviate or eliminate the emotional effects associated with it.

- **Cognitive withdrawal:** This strategy involves distancing oneself from the problem and anything that reminds one of it. It involves thinking about things and topics that are far removed from the issue at hand.

- **Seeking information:** This strategy involves the individual seeking information and advice to gain a better understanding of the situation.
- **Reinterpretation:** This strategy involves the individual trying to view the stressful situation positively, in the hope that circumstances will improve.
- **Positive thinking:** This strategy involves focusing on the potential outcomes of a situation if certain actions are taken, and wishing for change, improvements and resolution of the problem.
- **Turning to religion:** This strategy involves the individual engaging in prayer, religious practices and attending religious seminars to cope with the stressful situation.
- **Emotional venting:** This strategy involves engaging in actions that are not directly related to the problem, with the aim of expressing feelings and alleviating pressure.
- **Acceptance:** This strategy involves accepting reality, living with it and acknowledging it.
- **Directed Patience:** This strategy involves the individual attempting to avoid acting on impulse, instead forcing themselves to wait for the right moment. This may require recalling past experiences in similar situations.
- **Denial:** This strategy involves ignoring the seriousness of the situation and refusing to acknowledge it.
- **Active confrontation:** This strategy involves the individual taking action to confront the problem, making continuous efforts to increase or adjust their efforts while avoiding distractions from the threat they face.

5.2 Factors influencing coping strategies: Factors Influencing Coping Strategies:

Several factors influence the choice of coping strategies, including personality traits such as locus of control, self-efficacy, psychological resilience, negative affectivity and optimism. Additionally, situational and demographic factors play an active role in determining the coping strategies individuals use in stressful situations.

5.2.1 Personality variables: Personality variables:

- **Locus of control:** This concept refers to how individuals perceive their encounters with events in their lives, or their perception of control and regulation in their environment. Those with an internal locus of control attribute their successes and failures to their own efforts and believe they can control events, whereas those with an external locus of control attribute them to luck, chance, or the influence of others. In contrast, individuals with an external locus of control attribute their successes and failures to luck, chance, or the influence of others. They tend to experience higher levels of depression and lower levels of life satisfaction.
- **Personality type:** People do not respond to stressful events in the same way; their responses vary according to their personality type. Those who are sensitive to challenges from their environment tend to feel more pressure, be more easily affected by stressors and employ less effective coping methods. Conversely, individuals who are more relaxed, patient, satisfied with their work and life, and non-aggressive tend to use problem-focused coping strategies.
- **Self-esteem:** Self-esteem impacts an individual's mental health, level of achievement, ability to cope with environmental demands, relationships with others, and psychological well-being. Higher self-esteem is associated with lower levels of depression, anxiety and stress. Conversely, individuals with low self-esteem often suffer from anxiety disorders and depression (Taha Hussein, 2006, p. 122).
- **Psychological resilience:**

Resilience is composed of three essential characteristics:

Sense of commitment: This refers to an individual's willingness to engage with the challenges they may face.

- **Belief in control:** This is the belief that a person is responsible for what they encounter in life.

Challenge and openness to change: This involves being ready to accept change and try new activities that provide opportunities for growth.

Ego strength: This trait plays a significant role in coping with psychological stress. People with a strong ego are better able to resist stress and tend to use effective coping strategies.

Negative affectivity includes manifestations such as bad moods, anxiety, depression and aggression. Individuals characterised by high negative affectivity express their struggles and pain through various behaviours and are more likely to engage in excessive alcohol consumption and suicide attempts.

Optimism leads to more effective coping with stress, thereby reducing the associated risks (Taylor, 2008).

Self-efficacy: This concept refers to an individual's belief in their ability to manage and control situations and events effectively. It suggests that successfully coping with stress requires not only specific skills, but also the belief that one can control stressful events (Abdel-Maati, 1994, p. 58).

5.2.2 Situational factors:

These factors relate to the stressful situation or event itself.

- **Nature and characteristics of the situation:** Stressful events and situations that are sufficiently intense can lead to negative emotions such as fear and anxiety. These emotions can interfere with an individual's ability to solve problems. Furthermore, stressful situations representing challenges tend to evoke different coping strategies compared to events characterised by threats and loss (Hilal, 2000, p. 130).

- **Social support:** The availability of social support depends on an individual's belief in the competence of others and the depth of their relationships with important people in their life. Having a high level of support from family and friends is associated with effective coping strategies. Conversely, lower levels of social support are associated with less effective coping strategies (Hussein Taha, 2006, p. 135).

5.2.3. Demographic variables:

Age and gender differences:

Chronological age influences coping strategies for stressful events. Most researchers indicate that the coping strategies individuals use to deal with stressful events change with age and cognitive development. These strategies differ across age groups. Many studies have shown that men tend to use task-oriented and proactive coping strategies when facing stressful events, whereas women are more likely to use emotion-focused strategies (Al-Qurtubi, 1994, p. 92).

Economic status: Coping behaviours vary according to economic and cultural levels. People's responses to stress differ based on their cultural backgrounds, leading them to use different strategies when dealing with stressful events. Those from families with a high economic and social status tend to utilise effective behavioural and cognitive coping

strategies, whereas those from lower economic and social backgrounds often resort to avoidance-focused strategies (Taha Hussein, 2006, p. 141).

6. Previous studies:

A study by Bashir Battahar (2005), titled *Coping Strategies for Stressful Situations and Their Relationship to General Health in Light of Personality Type and Social Support*, reached the following conclusions:

- There are significant differences between males and females in the types of coping strategies used to deal with stressful life situations. Statistical results indicated differences in:

- Negative coping strategies, such as rumination, unrealistic thinking and self-blame, favoured females, while excessive drinking and sedative use favoured males.

- positive coping strategies: The researcher found that females tended to prefer reinterpretation and positive evaluation strategies, while males favoured relaxation and meditation strategies. No significant differences were recorded between males and females in other negative or positive strategies.

Regarding age differences, the researcher found significant differences in coping strategies among teachers in the three age groups for the following strategies: a set of positive strategies and a set of negative strategies. Positive coping strategies were found to be most prevalent among the 21–30 and 31–40 age groups, with minimal usage from other age groups.

Regarding coping strategies in relation to experience, the researcher noted significant variations among teacher groups in certain strategies. Regarding differences in the use of coping strategies based on educational stage, the researcher found significant differences between middle and secondary school teachers in some strategies, revealing an advantage for middle school teachers in reinterpreting and positively evaluating situations.

A study by Hassan Mustafa Abdel-Ma'ti (1994), titled 'Life Stress and Coping Strategies: A Comparative Study in Egyptian and Indonesian Societies', reached the following results: There were statistically significant differences in coping strategies attributed to gender within the Egyptian sample. Males were more likely to distract themselves with other activities, while females sought social support more actively, focusing more on social relationships and experiencing more compulsive urgency regarding the event. This was interpreted as indicating that females are generally more inclined than males to acknowledge the presence of psychological or emotional stress and seek help when secondary or vague signs of unhappiness appear, whereas males are less willing to do so.

Regarding age differences, the researcher found statistically significant differences in coping strategies for life stressors between the two age groups. Avoidance and denial strategies were predominant among the 21–30 age group when dealing with stressful life events, while the 31–40 age group utilised more active coping methods, focusing on the event, distraction towards other activities and self-efficacy development. Statistically significant differences were also found between the 21–30 and 41–50 age groups in their use of coping strategies. The younger group (21–30) exhibited a greater use of urgency and compulsive intrusion strategies, while the older group (41–50) was characterised by active coping methods and self-efficacy development. No significant differences were found between the 31–40 and 41–50 age groups in their coping strategies, except that the 41–50 age group was distinguished by their use of self-efficacy development.

Lotfi Abd Al-Baset Ibrahim (1994) conducted a study titled ‘Coping Processes in Relation to Several Psychological Variables Among Teachers’. The study involved a sample of 190 teachers from various middle and secondary schools and Al-Azhar institutes in the Monufia Governorate, aged between 25 and 55. The results indicated no differences in coping processes or stress management strategies based on gender, age group or years of experience. Ragab Shaaban’s study, titled ‘Gender and Age Differences in Coping with Stressful Situations’, examined a sample of 694 individuals aged 14–38, comprising 310 females and 384 males. The participants included students at various educational levels (excluding primary education) and employees in various professions, as well as graduate students. The Arabic version of the Moos Scale (1988) was used to assess coping strategies. The researcher found no statistically significant differences between genders concerning proactive and avoidant coping strategies. This indicates that stereotypical gender-linked behaviour did not significantly impact coping strategies. The researcher also concluded that there were no statistically significant differences in the use of either type of coping strategy due to age differences.

Hamoudi Ahmed’s (2005) study, titled ‘Professional Stress and Its Relationship to Anxiety, Depression, and Coping Processes Among Basic Education Teachers’, found that basic education teachers tend to reconstruct stressful situations by adding or subtracting elements. They also resort to conciliatory processes in light of the margin of freedom allowed by the relationships between teachers and administrative and educational supervisors. However, the study did not address which factors contribute to differences in the use of these strategies.

7. Methodological procedures of the study:

7.1. Study method:

A descriptive method was employed in the current study to understand the coping strategies of the sample and explore differences based on the study variables. This method is well-suited to studying phenomena as they exist in reality, focusing on both quantitative and qualitative descriptions, and is therefore the most appropriate choice for achieving the study’s objectives.

7.2. Main study sample:

The coping strategies scale was applied to a sample of 177 male and female teachers from several educational institutions. Table 1 illustrates the characteristics of the study sample.

Table 1 Distribution of the main study sample by gender and educational stage assigned.

Assigned Educational Level	Total	Percentage	Females	%	Males	%
Secondary Education	66	%37	40	%34.18	26	43.33%
Middle Education	59	%33	35	%29.91	24	4%
Primary Education	52	%29	42	%35.89	10	16.66%
Total	177	/	117	%66	60	33.89%

Based on the results from the SPSS programme, it is evident from the table that the proportion of females exceeds that of males. Females accounted for 66% of the total study sample, while males represented 33.33%. The distribution of females was almost equal across the different educational stages, with the following recorded percentages: 34% in secondary education; 29.91% in middle education; and 35.90% in primary education.

Table 02:
Distribution of the sample by seniority, gender and assigned educational stage

Seniority	1-5 years			6 -10 years			11-15 years			16-20 years			More than 20 years		
Educational Stage	P	M	S	P	M	S	P	M	S	P	M	S	P	M	S
Gender															
Females	03	02	06	02	01	04	01	01	05	01	02	12	35	29	13
Males	0	01	02	00	00	00	00	02	06	00	01	02	10	20	16
Total	03	03	08	02	01	04	01	03	11	01	03	14	45	49	29
Overall Total	14	7.9%		07		3.95%	15	8.47%		18		10.17%	123	69.49%	
Total Sample Size: 177															

Based on the results from the SPSS programme, the table shows that the highest percentage of seniority was in the ‘more than 20 years’ category, accounting for 69.49% of the total. In contrast, the lowest percentage was recorded in the 6–10 years category, accounting for 3.95%.

Table 03: Distribution of the sample by age, gender and assigned educational stage

Educational Level	25-35 years			36 -45 years			46-55 years			More than 56 years		
Educational Stage Gender	P	M	S	P	M	S	P	M	S	P	M	S
Females	06	03	08	17	17	21	18	14	10	01	01	01
Males	00	01	02	01	06	09	07	16	12	02	01	03
Total	06	04	10	18	23	30	25	30	22	03	02	04
Overall Total	20	11.10%		40.01 %		77	43.5 %	43.50%		09	5.08%	

Based on the results from the SPSS programme, the table shows that the ages of the individuals in the main study sample fall between the second and third categories. The percentages for these categories are as follows: 40.01% for the age group (36–45 years) and 43.50% for the age group (46–55 years).

Table 04 shows the distribution of the sample by educational level achieved, gender, and assigned educational stage.

Seniority	Middle			Secondary			University		
Educational Stage Gender	Primary	Middle	Secondary	Primary	Middle	Secondary	Primary	Middle	Secondary
Females	04	10	00	32	12	01	06	13	39
Males	03	02	00	03	11	00	04	11	26
Total	07	12	00	35	23	1	10	24	65
Overall Total	19	10.73%		59	33.33%		99	55.93%	

Based on the results from the SPSS programme, the table shows that the high proportion of individuals in the study sample who have a university education favours this level of education, which reached 55.93%. This is followed by secondary level at 33.33%, then primary level at 10.73%. This reflects the state's interest in developing teachers' qualifications at all levels of education.

7.3. Study Instrument:

The study relied on the Coping Strategies Scale developed by Lotfi Abd Al-Baset Ibrahim (1994). This scale comprises forty-two items distributed across eleven dimensions or strategies, each containing a varying number of questions. Each item uses a four-point scale ranging from "completely agree" to "disagree". A score of four indicates a strong inclination to use the strategy in question, while a score of one indicates no inclination to adopt it. A person's total score for a specific strategy or dimension reflects their inclination to adopt that type of strategy, while their total score on the entire scale represents their overall inclination to adopt these strategies.

The scale is said to be both valid and reliable. According to the author, tests were conducted on the scale to assess its internal consistency and concurrent validity, yielding positive and significant results at the 0.01 significance level. To assess reliability, two methods were employed: the test-retest method yielded a reliability coefficient of 0.81, while Cronbach's alpha produced a score of 0.87. These psychometric properties led the researcher to adopt the scale.

8. Psychometric Properties of the Coping Strategies Scale in the Current Study:

The Coping Strategies Scale was examined for validity and reliability. The results are illustrated in the following tables:

8.1. Validity of the Scale:

To calculate the validity of the scale in the current study, internal consistency was assessed and the results are shown in Table 5.

Table 5 shows the results of the internal consistency validity calculation for the questionnaire.

Results of internal consistency calculations for each dimension and the overall scale.

Dimensions of the Coping Strategies Scale	Correlation Coefficient	Significance Level: 0.01
1. Negativity and Self-Blame	0.69	Significant
2. Cognitive Withdrawal	0.67	Significant
3. Information Seeking	0.36	Significant

4. Reappraisal	0.68	Significant
5. Positive Thinking	0.46	Significant
6. Turning to Religion	0.5	Significant
7. Emotional Venting	0.59	Significant
8. Acceptance	0.69	Significant
9. Directed Patience	0.38	Significant
10. Denial	0.58	Significant
11. Active Confrontation	0.49	Significant

Based on the results from the SPSS programme, the findings indicate a significant correlation between each dimension and the overall test. All correlation coefficients are significant at the 0.01 level.

8.2. Reliability calculation:

To calculate the reliability of the scale in the current study, Cronbach's alpha and split-half reliability were employed. The results are illustrated as follows:

Table 06: Reliability Coefficient Calculated Using Cronbach's Alpha

Items	Cronbach's Alpha
42	0.81

Table 07: Reliability Coefficient Calculated Using Split-Half Method

Items	Split-Half Reliability	Guttman Correction Coefficient
42	0.76	0.81

The results obtained confirm that the scale is highly reliable. The findings indicate that the scale possesses the necessary psychometric properties, namely validity and reliability, to qualify it as a suitable tool for the main study.

Table 08: Level of Coping Strategies Favoured by Teachers Educational Stage

Educational Stage			Primary		Intermediate		Secondary		Total Sample	
Coping Strategies		M/N	M	A	M	A	M	A	M	A
01	Negativity and Self-Blame	18	18.46	2.44	17.38	2.69	17.09	2.32	17.59	2.54
02	Cognitive Withdrawal	15	15.48	2.63	15.23	2.58	14.93	2.35	15.19	2.51
03	Information Seeking	9	10.42	1.43	10.03	1.51	10.18	1.29	10.20	1.41
04	Reappraisal	15	16.73	1.91	16.42	2.42	16.07	1.93	16.38	2.11
05	Positive Thinking	12	14.26	1.7	14	1.71	14.36	1.54	14.21	1.65
06	Turning to Religion	9	10.92	1.09	10.57	1.20	10.62	1.38	10.69	1.25
07	Emotional Venting	9	9.71	1.63	9.50	1.65	9.5	1.55	9.56	1.60
08	Acceptance	9	10.01	1.57	9.27	1.75	9.21	1.61	9.46	1.67
09	Directed Patience	12	14.51	1.52	14.38	1.89	14.46	1.48	14.45	1.63
10	Denial	9	8.28	1.41	8.08	1.82	7.81	1.61	8.04	1.63
11	Active Confrontation	9	10.01	1.50	9.62	1.51	9.40	1.41	9.66	1.48
General Strategies		126	138.84	11.15	134.54	13.27	133.68	8.65	135.48	11.25

9. Presentation and discussion of results:

Presentation and discussion of the results for the first research question: ‘What is the level of strategies adopted by teachers across different educational stages?’

Coping strategies:

An analysis of the mean for each strategy reveals the following:

Teachers at different stages of education adopt a variety of strategies to alleviate stress, reflecting the influence of educational contexts on the diversity of strategies employed. This suggests that teachers do not rely on a single strategy, but rather adopt a range of strategies to varying degrees. Consequently, by examining the mean scores and comparing them to

theoretical means, the strategies can be categorised into three ranks based on their importance or adoption by teachers:

1. First Rank: This includes strategies with a mean score exceeding the theoretical mean. This result suggests that teachers frequently adopt these strategies to alleviate stress. These strategies are directed patience, positive thinking, seeking information, turning to religion and reappraisal.

2. Second Rank:

This includes strategies where the mean score is equal to the theoretical mean. This implies that teachers often or occasionally rely on these strategies in stressful situations. These strategies are cognitive withdrawal, emotional venting, acceptance, active confrontation, negativity and self-blame.

3. Third rank: This category consists of strategies with a mean score below the theoretical mean. This indicates that teachers rarely adopt these strategies. The strategy in this category is denial.

Regarding the standard deviation, there is consistency across all educational stages in the sample, with the standard deviation being small compared to the scale for stressful situations. The recorded results show that teachers at various levels tend to adopt positive strategies first, followed by negative ones when their coping mechanisms are exhausted.

Results for the second research question:

The second question aims to reveal differences in coping strategies and the overall coping index across different educational stages.

Table 09 shows the significance of differences in the types of strategies used across educational stages.

Significance Level	F Value	Mean Squares	D/F	Sum of Squares	Source of Variance	M	N	Levels	Dimensions
,010	4,70	29,150	2	58,300	Between Groups	18.46	52	Primary Middle Secondary Total	-
		6,198	174	1078,412	Within Groups	17.38	59		Negativity and
			176	1136,712	Total Sum	17.09	66		Self-Blame
						17.59	177		-
									Cognitive
									Withdrawal
									-
									Information
									Seeking
,506	,683	4,331	2	8,663	Between	15.48	52		-

					Groups	15.23	59	Primary	Reapprai
		6,341	174	1103,416	Within	14.93	66	Middle	sal
			176	1112,079	Groups	15.19	177	Seconda	- Positive
					Total Sum			ry	Thinking
								Total	- Turning
									to
									Religion
,350	1,05	2,118	2	4,235	Between	10.42	52		-
					Groups	10.03	59	Primary	Emotion
		2,003	174	348,443	Within	10.18	66	Middle	al
			176	352,678	Groups	10.20	177	Seconda	Venting
					Total Sum			ry	-
								Total	Acceptan
									ce
									-
									Directed
									Patience
,245	1,42	6,308	2	12,617	Between	16.73	52		- Denial
					Groups	16.42	59	Primary	- Active
		4,444	174	773,259	Within	16.07	66	Middle	Confront
			176	785,876	Groups	16.38	177	Seconda	ation
					Total Sum			ry	
								Total	
,457	,787	2,169	2	4,338	Between	14.26	52		Dimensi
					Groups	14.00	59	Primary	ons
		2,756	174	479,503	Within	14.36	66	Middle	-
			176	483,842	Groups	14.21	177	Seconda	Negativit
					Total Sum			ry	y and
								Total	Self-
									Blame
									-
									Cognitiv
									e
									Withdra
									wal
,290	1,24	1,948	2	3,896	Between	10.92	52		-
					Groups	10.57	59	Primary	Informati
		1,561	174	271,629	Within	10.62	66	Middle	on
			176	275,525	Groups	10.69	177	Seconda	Seeking
					Total Sum			ry	-
								Total	Reapprai
									sal
									- Positive

									Thinking
,738	,305	,792	2	1,584	Between Groups	9.71	52	Primary Middle Secondary Total	- Turning to Religion
		2,597	174	451,919	Within Groups	9.50	59		- Emotional Venting
			176	453,503	Total Sum	9.50	66		- Acceptance
,018	4,11	11,204	2	22,407	Between Groups	9.56	177	Primary Middle Secondary Total	- Directed Patience
		2,722	174	473,672	Within Groups	10.01	52		- Denial
			176	496,079	Total Sum	9.27	59		- Active Confrontation
,915	,089	,239	2	,478	Between Groups	9.21	66	Primary Middle Secondary Total	- General Strategies
		2,698	174	469,454	Within Groups	14.51	52		- Dimensions
			176	469,932	Total Sum	14.38	59		- Negativity and Self-Blame
,295	1,22	3,285	2	6,571	Between Groups	14.46	66	Primary Middle Secondary Total	- Cognitive Withdrawal
		2,673	174	465,068	Within Groups	14.45	177		- Information Seeking
			176	471,638	Total Sum	8.28	52		- Reappraisal
,084	2,51	5,465	2	10,929	Between Groups	8.08	59	Primary Middle	- Positive Thinking
		2,177	174	378,732	Within	7.81	66		- Turning

					Groups	9.66	177	Seconda	to
			176	389,661	Total Sum			ry	Religion
								Total	-
									Emotion
									al
									Venting
,033	3,46	427,242	2	854,483	Between	138.8	52		-
					Groups	134.5	59	Primary	Acceptan
		123,182	174	21433,731	Within	133.6	66	Middle	ce
					Groups	135.4	177	Seconda	-
			176	22288,215	Total Sum			ry	Directed
								Total	Patience
									- Denial

Based on the recorded results, it is evident that there are differences in coping strategies attributed to the educational stage at which they are employed. Notably, differences were found in strategies relating to negativity and self-blame, with F values of 4.70 and 4.11, respectively, and significance levels of 0.01 and 0.018. The second difference observed was in the acceptance strategy, which had an F value of 4.11 and a significance level of 0.018. The final difference was observed in the overall strategy, with an F value of 3.46 and a significance level of 0.033.

Multiple comparisons were conducted to determine the direction of these differences, and the results are as follows:

Table 10: Multiple Comparisons for Coping Strategies

Dimension	Level	Arithmetic Mean	Difference in Means	Significance Value	0.05
	Teacher				
First Dimension	Primary	18.461	*1.37	0.08	Significant
Negativity and Self-Blame	Secondary	17.090			
Eighth Dimension	Primary	10.019	*0.748	0.045	Significant
	Intermediate	9.271			
Acceptance	Primary	10.019	*0.807	0.023	
	Secondary	9.212			

General Adaptation	Primary	138.84	*5.16	0.032	Significant
	Secondary	133.68			

Based on the recorded results, it is evident that primary school teachers are more inclined towards negative strategies and self-blame than secondary school teachers, with an F value of 4.70 and a significance level of 0.010. Multiple comparisons were then conducted to determine the source of this difference, revealing that primary school teachers were favoured over secondary school teachers, with a significance level of 0.08.

The second difference recorded pertains to dimension eight, represented by acceptance, with an F value of 4.11 and a significance level of 0.018. Multiple comparisons of the means showed that this difference favoured primary school teachers, with a difference of 0.748 between primary and middle school teachers and a significance level of 0.045. The difference between primary and secondary school teachers was 0.807, with a significance level of 0.023. A difference was also recorded in overall coping, favouring primary school teachers with a difference of 5.16 and a significance level of 0.032. Thus, we can conclude that the hypothesis has been partially validated.

Interpretation of results for the second question:

The second question suggests that there are significant differences in coping strategies and overall coping results attributed to differences in the assigned educational stage. The statistical study, as shown in Tables 9 and 10, partially validated the hypothesis by indicating significant variations among teachers in some coping strategies and non-significant variations in others, both of which were attributed to differences in the assigned educational stage.

The study revealed significant variations in the first strategy, negativity and self-blame, according to the educational stage. The results showed that teachers assigned to the primary education stage were more likely to use this strategy. The nature of the primary education stage may make teachers feel responsible for what happens, reflecting a perceived lack of effort or knowledge in dealing with stressors. This finding is consistent with our observations regarding stressful situations, in which the primary education stage group reported the highest levels of pressure concerning scientific and social capabilities.

The second difference recorded was in the eighth strategy, which was represented by acceptance and favoured the group assigned to the primary education stage. This activity encourages individuals to accept and live with reality. Therefore, we can conclude that both strategies are negative, reflecting a reluctance to confront stressful situations directly and resulting in a lack of energy directed towards alleviating them.

The third recorded difference was in overall coping between those assigned to the primary education stage and those assigned to the secondary education stage. The group assigned to the middle education stage can also be included, as the difference between these two groups was very small. The mean score for the secondary education stage was 133.68, while the mean for the middle education stage was 134.54; the difference favoured the group assigned to the primary education stage. This was expected as we found that, in all strategies, the mean difference favoured the primary education stage group. This can be attributed to the specific nature of the primary stage and the special attention it requires. Additionally, in the Algerian school system, teachers accompany students from the first year of primary school until the

end of the primary stage in the fifth year. Due to the amount of time they spend with students, teachers tend to adopt various strategies to deal with stressful situations.

Our results align with those of Ben Tahar Bachir (2005), who found significant differences in some strategies between middle and secondary school teachers, particularly in reappraisal and positive evaluation of the situation. Our findings also concur with those of Hamoudi (2005), who concluded that primary school teachers tend to reconstruct stressful situations by adding or simplifying certain elements and occasionally resorting to conciliatory processes.

Conclusion:

Our study focused on an important topic in school mental health: the level of coping strategies among teachers at different stages of education. Based on the statistical analysis, particularly the comparison of mean scores with theoretical means, we found that primary school teachers most frequently adopt negative strategies characterised by emotional responses and self-blame. By contrast, middle and secondary school teachers tend to adopt more positive strategies.

Adopting negative strategies can have an adverse effect on teachers' health as these strategies are an indicator of potential burnout. Therefore, it is crucial to support this group of teachers and prevent burnout, as this could negatively impact their mental health and job performance.

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