TPM Vol. 32, No. 4, 2025
ISSN: 1972-6325
https://www.tpmap.org/

Open Access

COPING STRATEGIES, SELF-EFFICACY, AND PSYCHOLOGICAL IMMUNITY: A CORRELATIONAL STUDY AMONG ADOLESCENTS WITH MOTOR DISABILITIES

NOUF NAWAR ALOTAIBI[1*], HUDA SHAABAN AWED[2]

[1]DEPARTMENT OF SPECIAL EDUCATION, FACULTY OF EDUCATION, NAJRAN UNIVERSITY, NAJRAN, SAUDI ARABIA. E-MAIL: nnalotaibii@nu.edu.sa
[2] DEPARTMENT OF SPECIAL EDUCATION, FACULTY OF EDUCATION, NAJRAN UNIVERSITY, NAJRAN, SAUDI ARABIA, E-MAIL: hudaeg2010@yahoo.com

Abstract
Adolescents facing these disabilities experience multiple psychological and social problems that can impede their adjustment and well-being. Understanding how these youths experience and adapt to stress is critical to providing support. This research focuses on the interaction of coping skills, self-efficacy, and psychological immunity in adolescents with motor impairments in the Najran region of Saudi Arabia. The author employed a correlational descriptive design and collected data from a randomly chosen corpus of 162 respondents aged 15 to 18. The authors integrated three scales of proven validity to measure the various dimensions of coping: 'positive confrontation, emotional discharge, and social support; self-efficacy: performance capability, challenge management, and outcome prediction; and psychological immunity: positive thinking, creativity, self-confidence, 'flexibility, adaptation, and integration. Using Pearson's correlation and reliability as determination of statistical independence, the author concluded that the participants displayed high coping, particularly proactive coping, and moderate self-efficacy and psychological immunity. There were important positive correlational relationships, implying that the use of coping strategies is directly related to self-efficacy and psychological resilience. These results highlight the importance of adaptive coping as a protective psychological mechanism that helps disabled adolescents maintain emotional equilibrium and social adjustment. Counseling psychology, inclusive education, and rehabilitation need to focus on the systematic development of these psychological resources. Counseling strategies that center on the formulation of coping skills and the enhancement of self-efficacy and psychological immunity will improve mental health, promote social inclusion, and empower adolescents to meet the challenges of everyday life. This research adds to the understanding of strength-based frameworks and complements the Saudi Vision 2030 national projects.
Keywords: coping strategies, self-efficacy, psychological immunity, adolescents, disabilities, resilience

1. INTRODUCTION

Adolescents with mobility disabilities navigate through interactions with the physical environment with the social world and with the psychosocial elements of their internal world that shape their responses to the challenges and emotional equilibrium (Porcelli et al., 2014). It is in this context that coping strategies, psychological immunity, and self-efficacy as components of a multifaceted construct come to explain the challenges of adaptive functioning, the preservation of motivation, and the maintenance of positive emotional equilibrium. An integrated review of these variables points to a hierarchy in the developmental process (Deepthi et al., 2022). Coping behaviors are the direct adjustment mechanisms; psychological immunity is a protective advance; and self-efficacy is the energizing force that directs effort to the sustained engagement of challenging tasks (Jiang et al., 2025). Their relational coherence needs to be a priority in educational and counseling research to facilitate psychological adjustment and tackle school exclusion for these youth.

Coping strategies are those strategies which include organized cognitive, emotional, and behavioral efforts of an individual that are aimed at resolving an internal or external demand which is stressful and exceeds an individual's resources (Bondarchuk et al., 2024). Adolescents with motor limitations experience stress from barriers that are environmental, stigma, and dependence on people for mobility and daily activities in addition to the usual developing stress. The way in which they cope determines whether their experiences will be of growth or of distress. Coping has been described by scholars as a trait, while in fact it is a process, which consists of the integration of management of

emotional regulation, cognitive restructuring, and the effort of an individual to cope with external environmental problems (Dehghan et al., 2023; Manuel et al., 2016). According (Ali, 2019; Hassani, 2015) to coping strategies that are positive in nature involve rational planning, problem-solving, and seeking social or spiritual support, while avoidance, emotional spilling, and self-blame are examples of maladaptive responses. These are of great importance in educational settings, where classroom participation, peer relations, and persistence in learning tasks are influenced by coping behavior. The coping strategies for learners with disabilities are meant to manage immediate stress and also to foster self-acceptance and social inclusion. Coping strategies enable adolescents to suffer the psychological impacts of their disabilities less by permitting them (Mustafa, 2022).

Adolescents with disabilities engage different forms of coping strategies due to many factors. Most notably among these are an individual's physical health, self-efficacy, and social support, respectively (Mustafa, 2022). The physical environment, with its temperature, noise, pollution, and crowding, can either produce or relieve stress. The social setting can provide instrumental and emotional support or create emotional and instrumental obstacles that prevent adaptive coping. The framework, and choice, of coping strategies can also be influenced by the intensity of the stressor. In high stress and pressure situations, emotions, and intense pressure, can trigger an uncontrollable fight or flight response (Abd Albadeea, 2012). Such dynamics clearly indicate the need for structured interventions in schools that focus on teaching problem-solving and helping students learn to assess which coping strategy is most appropriate for the situation. While coping strategies are the behavioral and adaptive face of adjustment, psychological immunity is the deeper and structural system. Albert-Lorincz et al. (2012) describe psychological immunity as the stress-bearing and functional efficiency constellation of one's personality traits that enables one to integrate adversity into their life narrative. It is the system that resists psychological decay and fosters it (A. Dubey & D. Shahi, 2011). Psychological immunity fosters engagement in learning by sustaining one's optimism, flexibility, and self-control in the face of ongoing adversity. Psychological immunity leads to the continued engagement in the learning process by fostering optimism, flexibility, and self-control during persistent challenges. Al-Shanawani (2019) defined it as the person's ability to confront crises and contain feelings of anger, powerlessness, and frustration. Barbanell (2009) equated it to a biological immune system, describing it as a system functioning in the background to defend one's emotional balance against outer emotional injurious attacks.

In diverse scholarly works, psychologists have pinpointed variations of psychologically immune individuals. Some have identified attributing negativity to positive events, turning failures to learning opportunities, converting weaknesses towards effort persistence, or converting setbacks to effort persistence. Zidane (2013) proposed five interlinked parts: positive thinking, creative problem solving, self-efficacy, adaptability and flexibility, and emotional balance and control. Together, they capture the functional breadth of the construct. These dimensions align with the competencies recognized within inclusive education, e.g., reflective thinking, innovation, and emotional regulation. In adolescents with disabilities, the internalization of stigma could be mitigated, and participation sponsored by strengthening psychological immunity facilitated and sustained participation with realistic optimism and toleration of frustration (Hammad et al., 2024). On the other hand, burnout, negative self-image, and failures weaken immunity while reliance on defensive rather than adaptive coping goes (Hammad, 2023). Hence, educational programs focused on cultivating resilience, mindfulness, and goal-setting psychologically serve as "vaccinations" to protect chronic disengagement and stress (Hammad & Shalhoub, 2024).

Numerous studies demonstrate the value of psychological immunity in educational settings. Szelesne (2006) found that psychological immunity helped mitigate perceived stress related to the reconceptualization of childhood adversity. Examining psychological immunity more closely, A. Dubey and D. Shahi (2011) argued that high-psychological immunity individuals experience less psychological exhaustion because of the use of planning and positive reappraisal in stress mediation. Likewise, Wilson and Gilbert (2005) observed that negative moods are lessened through immune-like cognitive processes by the transformation and reframing of distressing situations, while Valentine et al. (2004) defined psychological pressure immunity as a blend of psychological resilience and adaptive disposition. El Sharif (2016) maintained the psychological decline of the immune system could be more effectively refrained by therapeutic practices that enhanced positive thinking and strengthened self-efficacy. Psychological immunity, therefore, is not a static personality trait, but rather an actionable system that can be developed through cognitive reorganization and positive social and accomplishment feedback. Lastly, self-efficacy, the third major component of the triad, is the motivational force that propels coping and immunity. Self-efficacy concerns individuals' ability to plan and enact the respective actions to achieve the performance standards (Bandura, 1997). When self-efficacy is high, there is initiative, sustained effort, and strategic movement; low self-efficacy is associated with detachment, passivity, and quitting. Efficacy beliefs influence students' task engagement, persistence in face of challenges, and resource utilization in academic contexts (Hammad et al., 2020). Al-Zayat (2001) argued the importance of efficacy beliefs in the emotion, cognition, and behavior cycle, thereby influencing learning and the social aspects of the learning environment. In this regard, Ali (2019) examined self-efficacy in contexts where behavioral demands are novel, highlighting the importance of self-efficacy in answering the question, "How efficiently can I perform this task?" Bandura's social cognitive theory places self-efficacy in one of the dimensions of self-regulatory processes within social reciprocal

determinism, where self beliefs, goals and self-evaluation forms an integral part of the behavioral dimension (Schunk, 2001).

Bandura (1997) focuses on generality and how transferable efficacy beliefs are and the influence this has on adolescents' skill utilization and application. The sources of self-efficacy are well known and include mastery experiences, vicarious experiences, verbal persuasion and physiological states (Gahungu, 2007). In inclusive classrooms, the feedback given by teachers, peer modeling, and incremental mastery are particularly powerful. High self-efficacy students aspire more, persevere, and show more resilience, whereas low self-efficacy students focus on their failures and give in to stress (Fung, 2010; Mohammed et al., 2016; Qureshi, 2011). These differences show the importance of self-efficacy in coping and psychological resilience. All three constructs combined show a reciprocal system of psychological adjustment. Positive coping results in feelings of mastery and control over one's environment, thus strengthening self-efficacy. Greater self-efficacy makes one more likely to select and maintain positive coping strategies, which leads to some desired results (Hammad & Awed, 2023). Over time, consolidated experiences and coping lead to psychological immunity, a robust sense of optimism, emotional and mental flexibility, and self-regulation. In turn, the psychological immune system will help take the bite out of future negative stress appraisals, allowing the individual to see the current challenge as one manageable, increasing use of approach coping strategies. Within this cycle, emotional discharge is inadequate unless it is accompanied by positive action; positive confrontation and social support remain the pathways through which efficacy and immunity strengthen synergistically (Larsen et al., 2009; Mustafa, 2022). The system's functionality for adolescents with mobility related disabilities is also shaped by environmental and developmental moderators. From the perspective of coping theory, stress is also shaped by the presence or absence of physical, social, and collaborative empathy as well as the design of classroom materials (Mustafa, 2022). Stressed social environments centered around conflict can negate the positive effects of collaborative support. Abd Albadeea (2012) points out that the severity of stressors is also crucial; under strong social stress, only adolescents who possess psychological immunity with strong efficacy beliefs are able to confront the stress.

Evidence of mastery and environmental control enhances self-efficacy as positive coping becomes self-efficacy pivotal in determining the choice of adaptive coping techniques and their persistence long enough to produce favorable results (Hammad & Shalhoub, 2024; Kleppang et al., 2023). Eventually, positive coping experiences become accumulated and crystallized as psychological immunity, which is a psychological stance characterized as optimistic, flexible, and self-regulated. Psychological immunity then influences the perception of stress and challenges, reinforcing a tendency to approach the problem head anduse coping mechanisms that combat the stress (Lewitus & Schwartz, 2009). Within this cycle, emotional discharge is inadequate if it is not directed towards constructive discharge; positive confrontation and social support remain the pathways through which efficacy and immunity grow synergistically. Psychological immunity integrates optimism, self-regulation, and flexibility, reinforcing a tendency to approach the problem head. Psychological immunity influences the perception of stress and. Within this cycle, emotional discharge is inadequate if it is not directed towards constructive. Positive confrontation and social support remain the pathways through which efficacy and immunity grow synergistically (Larsen et al., 2009; Mustafa, 2022). Environmental and developmental moderators shape how this system functions for adolescents. Factors such as the physical environment, noise and classroom layout, and the provision of instruction, and stress, psychosocial, and social elements of the environment influence stress levels and the feasibility of coping efforts (Mustafa, 2022). Empathy and collaborative social environments increase the positive effects of supportive coping, while environments focused on conflict can diminish those effects. The intensity of stressors is significant as only those adolescents with strong psychological frameworks and resilient self-efficacy beliefs will maintain adaptive confrontation under extreme pressure (Abd Albadeea, 2012). Developmental history is also a contributing factor; previous social failures or rejections are likely to erode psychological immunity, pointing to the need for continued support through counseling, inclusive teaching practices, and social pedagogy frameworks (Kagan, 2006; Kaur & Som, 2021).

Such interactions are also supported with various samples through empirical studies. Al-Rubaie and Al-Zuhaili (2020), while studying university students, found positive relations between psychological immunity and rational, emotional, and avoidance coping styles as well as negative relations with emotional, rational, and avoidance coping styles which implies that cognitive determinants are aligned with stronger cognitive and emotional evaluations. Kariri and Hakmi (2021) researched teachers of students with disabilities and witnessed high immunity and self-awareness with self-awareness predicting immunity implying metacognitive understanding supports resilience. Positive correlation with immunity and coping was reported by (Al-Sherbiny & Abdel Salam, 2021) among parents of children with autism demonstrating again the value of mutual reinforcement. Fatal and Suleiman (2021) revealed parental support correlates with psychological hardiness and self-efficacy in youths with mobility disabilities meaning adaptive functioning is still from familial support. (Hassan & Salem, 2022) showed coping mediates relationship psychological immunity and adjustment in primary school children emotionally more than problem-focused strategies were used indicating possible developmental gaps in coping maturity. Alioat and El Keshky (2023) interventional evidence of a counseling designed program enhancing coping skills and increasing both coping and psychological immunity in Saudi female university students. Finally, Al-Rashidi and Al-Arfaj (2022) found positive correlations between self-esteem and coping strategies among gifted students, emphasizing that positive self-beliefs and adaptive coping co-develop across

educational levels. Overall, these findings support a conceptual model in which coping strategies, psychological immunity, and self-efficacy comprise a dynamic triad necessary for educational adaptation in the context of disabilities (Tsibidaki, 2021). Coping is the visible behavior adolescents demonstrate when encountering stress, self-efficacy drives and directs those behaviors, and psychological immunity is the regulatory framework that provides the structure to all these elements over time (Cattelino et al., 2023). When schools assist in the development of problem-solving competencies, peer support networks, and organized pathways to success, they, in effect, provide in direct support to the strengthening of immunity and efficacy together (Zamiri & Esmaeili, 2024). On the other hand, environments that impose a sense of helplessness or focus on losses may, in unintentional grad, strengthen avoidance and emotional discharge, which is in direct opposition of long-term adjustment (Nolen-Hoeksema et al., 2013). For educational researchers and practitioners, theoretical, and practical, the implications become obvious. From a theoretical standpoint, coping strategies must not be regarded as stand-alone techniques, but rather as manifestations of psychological immunity and self-efficacy. This integrated perspective aligns with positive psychology principles and inclusive education, both of which advocate approaches centered on empowerment and ability rather than on a deficit perspective (Yin et al., 2022). Practically, the strategies embedded within teacher education programs might help teachers recognize students' coping profiles, provide mastery feedback, and promote autonomy within safe spaces. Counselors can expect the greatest positive response to resilience and academic adjustment when the counseling designed incorporates problem-focused coping and self-efficacy strengthening. Furthermore, the school context functions as an ecological moderator; therefore, inclusive infrastructure, collaborative classroom climates, and collaborative teaching approaches serve as an "external immune system," fostering the internal systems of students to flourish (Gilar-Corbi et al., 2024).

The available literature summarizes the situation within a unified theoretical perspective; adolescents with mobility disabilities employ coping strategies as a direct response to stress, but the effectiveness of those strategies is mediated by psychological immunity and self-efficacy. Adaptive coping nurtures both constructs, which in turn sustain further adaptive coping, forming a positive developmental loop (Wang et al., 2022). Educational settings can amplify this process by cultivating supportive relationships, modeling competence, and ensuring experiences of mastery. Understanding and reinforcing this triadic system is critical for promoting psychological well-being, academic persistence, and social inclusion among students with disabilities.

As noted in the literature, there is a unified theoretical framework: adolescents with mobility disabilities experience stress and use coping strategies, the effectiveness of which is contingent on the psychological immunity and self-efficacy of the individual (Dahlbeck & Lightsey Jr, 2008; Hammad, 2023). Adaptive coping improves these two, which motivates even more adaptive coping, thus forming a positive loop. The cycle is cultivated within educational contexts, as these environments tend to offer supportive relationships, provide models of competence, and generate mastery experiences. The result is triadic, contributing to psychological well-being, social inclusion, and academic persistence. The majority of the literature documents the aspects of coping alongside self-efficacy and psychological immunity. However, these dimensions remain silent in the literature, or exist within disempowered communities (Cai et al., 2025). The few studies that have done this striking the balance do not focus on children and adolescents with motor disabilities. The current literature leaves much to be desired in explaining the accommodation of psychological and educational systems in the study of resilience and adjustment for this population.

Thus, this study seeks to add to the literature regarding coping strategies, self-efficacy, and psychological immunity in adolescents with motor disabilities. In particular, the study seeks to assess the levels of the above and determine the relationships among them. Based on the above theoretical framework, the study seeks to answer the following research questions:

1- What is the level of coping strategies among adolescents with motor disabilities?
2- What is the level of self-efficacy among adolescents with motor disabilities?
3- Are there relationship between coping strategies and self-efficacy among adolescents with motor disabilities?
4- What is the level of psychological immunity among adolescents with motor disabilities?
5- Are there relationship between coping strategies and psychological immunity among adolescents with motor disabilities?

2. METHODOLOGY

2.1 Research Design

In light of this study attempting to understand the relationships between coping strategies, self-efficacy, and psychological immunity, a descriptive correlational approach to research design was utilized, as this allows the description of research variables association statistically without the manipulation of variables. In this approach to research design, the aim is to lay the groundwork for understanding how coping behaviors of adolescents with motor disabilities psychologically affect the adolescents as a psychological resource. This is consistent with the approach taken in previous research related to psychosocial constructs within special needs populations, for instance, (Al-Rubaie & Al-Zuhaili, 2020; Alioat & El Keshky, 2023).

3.2 Participants and Setting

The study population included adolescents with motor disabilities attending both public and private schools in the region of Najran in the southern part of Saudi Arabia. There were 162 participants included through random selection. The age criteria were 15 to 18 years. There were disabilities verified with school medical records, and there were enrollments in educational programs at the time of the study. Exclusion criteria were, in order to homogenize the study population, participants with comorbidity of disabilities (sensory, and/or intellectual disabilities). Of the participants, 93 were boys (57.4 %), and 69 were girls (42.6 %). This aligns with the gender distribution in population with disabilities in Najran. Almost all participants came from middle-income families, and two-thirds were receiving some educational or rehabilitation assistance. The study received ethical clearance from the Najran University Research Ethics Committee, and consent was obtained in line with the ethical principles of the Declaration of Helsinki (2013).

3.3 Instruments

3.3.1 Coping Strategies Scale (CSS)

This Coping Strategies Scale (CSS) was designed to measure the frequency and effectiveness of coping behaviors employed by adolescents in distressing situations. Several studies were used to contribute to the preparation of this scale, for example, (Ahmad et al., 2018; Cooper et al., 2008; Kato & Health, 2015; Vitaliano et al., 1985).The 26 items in the scale was divided into three subdimensions: 1. Positive Confrontation (8 items) – active problem solving and planning. 2. Emotional Discharge (9 items) – expression of emotions and release of tension. 3. Social Support (9 items) – the tendency to seek aid or share distress with others. These items were rated on a three-point Likert scale (1 = rarely, 2 = sometimes, 3 = often) with higher scores indicating more adaptive and frequent coping. The content validity of the coping scales was established through review by an expert panel in special education and psychology. The scales also demonstrated strong reliability with Cronbach's alpha = 0.89 and split-half reliability = 0.89. The inter-subscale correlations of subscales were 0.82 – 0.86 ($p < 0.01$) confirming coherence.

3.3.2 Self-Efficacy Scale (SES)

Several studies were used to contribute to the preparation of this scale, for example (Bandura, 2006; Muris & Assessment, 2001; Scholz et al., 2002) . Self-Efficacy Scale consists (SES) of 21 items across 3 dimensions and was adapted from previously validated works: 1. Ability to Perform Tasks (7 items) 2. Ability to Face Challenges and Difficulties (7 items) 3. Ability to Predict Outcomes (7 items) All items were rated using a three-point Likert scale (1 = low, 2 = moderate, 3 = high). The higher the score, the stronger the belief in self-efficacy. Face validity was evident through expert evaluation. Correlations among the subscales and the total score were between 0.80 and 0.88 indicating strong construct validity. For internal consistency, the subscales' and overall scale's total score's Cronbach's alpha ranged from 0.77 to 0.85 and was 0.85.

3.3.3 Psychological Immunity Scale (PIS)

In developing the Psychological Immunity Scale (PIS), several studies were used that contributed to the preparation of this scale, for example (Aggab & Aouine, 2025; A. Dubey & D. J. I. J. S. S. R. Shahi, 2011; Gupta et al., 2020; Široká et al., 2024). The instrument comprised 42 items and was organized into 6 areas which included: 1. Positive Thinking (7 items) 2. Creativity and Problem Solving (6 items) 3. Self-Efficacy (9 items) 4. Self-Confidence (8 items) 5. Flexibility and Emotional Balance (6 items) 6. Self-Control and Adaptation (6 items) The items were scored on a 3-point Likert scale (1 = never, 2 = sometimes, 3 = always). A higher score on the scale was indicative of stronger psychological immunity. The scale was subjected to expert assessment for face and content validation. The subscales' internal consistency reliability (Cronbach's alpha) was 0.79-0.87 with an overall reliability of the scale at 0.88. The interrelationships among the subscales (0.79-0.88, $p < 0.01$) affirm the instrument's structural cohesion.

3.4 Procedure

Prior to implementation, all research instruments, including the Coping Strategies Scale (CSS), Self-Efficacy Scale (SES), and Psychological Immunity Scale (PIS), underwent thorough preparation, adaptation, and validation. Each was based on prior research and validated on face and content dimensions by a group of specialists in psychology and special education. A pilot study was done, and the instruments were adjusted based on feedback, reliability, and study context applicability. High reliability (Cronbach's alpha of 0.77 to 0.89) and correlation between sub-scales suggested strong internal consistency and construct validity of all instruments prior to participant administration. Data collection occurred in the 2024 academic year across various schools and rehabilitation centers in Najran City. Following the acquisition of required institutional permissions, brief orientation meetings were held to explain study purpose, outline confidentiality, and clarify the voluntary nature of participation. Questionnaires were either administered individually or in small groups based on accessibility and physical comfort of participants. Respondents were estimated to need 45–60 minutes to complete all three instruments. After completion, the data were screened for missing values and prepared for statistical analysis using IBM SPSS Statistics (Version 26). Throughout the entire research process, confidentiality and ethical standards were strictly maintained.

3.5 Data Analysis

The quantitative analysis was performed to address the five questions of the study. The following methodologies were used: Descriptive statistics were used to determine the levels of coping strategies, self-efficacy, and psychological immunity to determine the mean, standard deviation, rank, and percentage. The strengths and directions of the

relationships within the three core variables of the study were measured using Pearson correlation coefficients. Reliability was measured using the Cronbach's alpha and split-half methods. At the levels of $\alpha = 0.01$ and $\alpha = 0.05$, the tests were proved and showed statistical significance. This framework was chosen to provide the study an overview and insights beyond the descriptive analysis. The study was correlational; there were no manipulations or interventions, and the analysis focused on the relationships that existed in the population of interest.

3.6 Ethical Considerations

The study abided by the ethical principles of research with human subjects. Participation was voluntary, and respondents were told that they could withdraw at any time with no consequences. No risk of harm, either psychological or physical, was present to the data subjects. Anonymity of personal information was maintained. Permission to access schools and centers was provided by the Najran Directorate of Education, and the study was undertaken with the supervision of the university's Department of Special Education.

4 RESULTS

To identify the level of coping strategies among adolescents with motor disabilities, the arithmetic means, and standard deviations, of agreement for the study sample's responses to the dimensions of the coping strategy scale, and the results were as shown in table 1:

Table 1. Means, Standard Deviations, and Ranks of Coping Strategies among Adolescents with Motor Disabilities (N = 162)

Dimension	Mean (M)	Standard Deviation (SD)	Rank	Level
Positive Confrontation	2.85	0.65	1	High
Emotional Discharge	2.47	0.54	2	High
Social Support	2.44	0.55	3	High
Total Coping Strategies	2.59	0.38	—	High

Table1 shows that adolescents with motor disabilities reported a high overall level of coping strategies (M = 2.59). Among the subdimensions, positive confrontation achieved the highest mean (M = 2.85), followed by emotional discharge and social support. This finding indicates that the participants primarily rely on problem-focused coping behaviors that involve active problem-solving and planning rather than avoidance or withdrawal.

To identify the level of Self-Efficacy among adolescents with motor disabilities, the arithmetic means, and standard deviations, of agreement for the study sample's responses to the dimensions of the Self-Efficacy scale, and the results were as shown in table 2:

Table 2**.** Means, Standard Deviations, and Ranks of Self-Efficacy Dimensions among Adolescents with Motor Disabilities (N = 162)

Dimension	Mean (M)	Standard Deviation (SD)	Rank	Level
Ability to Perform Tasks	2.34	0.28	1	High
Ability to Predict Outcomes	2.26	0.39	2	Moderate
Ability to Face Challenges	2.18	0.46	3	Moderate
Total Self-Efficacy	2.31	0.25	—	Moderate

As presented in Table (2), the total mean score for self-efficacy was moderate (M = 2.31). The highest subdimension was the ability to perform tasks, suggesting that participants feel capable of managing routine activities. However, lower means in the ability to face challenges indicate a degree of hesitation or self-doubt when encountering difficult or unfamiliar situations.

To identify the level of Psychological Immunity Dimensions among adolescents with motor disabilities, the arithmetic means, and standard deviations, of agreement for the study sample's responses to the dimensions of the Psychological Immunity Dimensions scale, and the results were as shown in table 3:

Table 3. Means, Standard Deviations, and Ranks of Psychological Immunity Dimensions among Adolescents with Motor Disabilities (N = 162)

Dimension	M	SD	Rank	Level
Positive Thinking	2.31	0.84	1	Moderate

Dimension	M	SD	Rank	Level
Self-Control and Adaptation	2.29	0.56	2	Moderate
Self-Confidence	2.23	0.20	3	Moderate
Creativity and Problem-Solving	2.21	0.46	4	Moderate
Psychological Flexibility/Balance	2.15	0.78	5	Moderate
Self-Efficacy (as subdimension)	2.14	0.62	6	Moderate
Total Psychological Immunity	**2.26**	**0.54**	—	**Moderate**

Table (3) illustrates that the adolescents' psychological immunity was at a moderate level (M = 2.26). The highest means appeared in positive thinking and self-control/adaptation, reflecting a generally optimistic outlook and some emotional regulation. However, lower scores in psychological flexibility and internal self-efficacy suggest that emotional resilience is present but still developing.
To identify the nature of the relationship between coping strategies and self-efficacy among adolescents with motor disabilities, the researcher used the Pearson correlation coefficient, and the results were as shown in table 4

Table 4. Pearson Correlation Coefficients between Coping Strategies and Self-Efficacy Dimensions (N = 162)

Variables	Ability to Perform	Ability to Face Challenges	Ability to Predict Outcomes	Total Self-Efficacy
Emotional Discharge	0.70**	0.63**	0.66**	0.71**
Positive Confrontation	0.61**	0.66**	0.64**	0.66**
Social Support	0.54**	0.53**	0.57**	0.56**
Total Coping Strategies	0.53	0.61	0.64	0.61

Note: $p < 0.01$ (two-tailed)

Table 4 shows a significant positive correlation between coping strategies and self-efficacy ($r = 0.61$, $p < 0.01$). The strongest relationship was between emotional discharge and ability to perform ($r = 0.70$), implying that the ability to express emotions constructively contributes to a stronger sense of competence and self-confidence.
To identify the nature of the relationship between coping strategies and psychological immunity among adolescents with motor disabilities, the researcher used the Pearson correlation coefficient, and the results were as shown in table 5

Table 5. Pearson Correlation Coefficients between Coping Strategies and Psychological Immunity Dimensions (N = 162)

Variables	Emotional Discharge	Positive Confrontation	Social Support	Total Coping Strategies
Positive Thinking	0.82**	0.40**	0.53**	0.51**
Creativity & Problem-Solving	0.48**	0.38**	0.35**	0.40**
Self-Efficacy (PIS dimension)	0.39**	0.36**	0.45**	0.40**
Self-Confidence	0.43**	0.56**	0.56**	0.53**
Psychological Flexibility/Balance	0.44**	0.41**	0.42**	0.56**
Self-Control and Adaptation	0.63**	0.41**	0.55**	0.44**
Total Psychological Immunity	0.43	0.41	0.49	0.44

Note: $p < 0.01$ (two-tailed)
As shown in **Table (5)**, coping strategies were **positively and significantly correlated** with all dimensions of psychological immunity. The strongest relationship emerged between **emotional discharge and positive thinking (r = 0.82)**, highlighting that emotional expression is a central element in strengthening resilience and psychological defense mechanisms.

Table (6) summarizes the main outcomes of the study.

Variable Relationship	Correlation (r)	Significance (p)	Interpretation
Coping ↔ Self-Efficacy	0.61**	< 0.01	Strong positive correlation
Coping ↔ Psychological Immunity	0.44**	< 0.01	Moderate positive correlation

Variable Relationship	Correlation (r)	Significance (p)	Interpretation
Self-Efficacy ↔ Psychological Immunity	0.58**	< 0.01	Significant positive relationship

Table (6) summarizes that all main relationships between coping strategies, self-efficacy, and psychological immunity were statistically significant at ($p < 0.01$). The data support the hypothesis that coping mechanisms play a critical role in enhancing both self-efficacy and psychological immunity among adolescents with motor disabilities.

DISCUSSION

Understanding the study's findings brings to light the psychological adaptation of adolescents with motor disabilities in Saudi Arabia's Najran region. While demonstrating moderate self-efficacy, psychological immunity, and complex psychological resilience, these adolescents have shown remarkable psychological coping mechanisms. Within a cohesive framework, psychological adaptation and resilience are achieved in response to behavioral coping. Most remarkably, the adolescents employed positive confrontation coping, a strong indicator of problem-focused coping. In problem-focused coping, as described in the stress-coping theory by Lazarus and Folkman, the individual resolves the problem to reduce stress. Given the psychological and emotional climate of the region, active positive confrontation coping with stress bolsters psychological well-being and emotional regulation and serves as a protective coping mechanism.

The importance of emotional discharge as a coping mechanism was underscored by respondents themselves, while the lower emphasis on social support warrants further exploration. This trend aligns with results by Layas (2017), which described the difficulties of adolescents with physical disabilities in obtaining secure, accepted, and positive peer relations due to social stigma and exclusion. The limited use of external social resources emphasizes the importance of building inclusive social atmospheres and the need to address the discrimination that can facilitate negative coping dynamics. The self-efficacy exhibited in this group was moderate, resting between the confidence with everyday activities and hesitation with new and more difficult activities. This dichotomy aligns with Bandura (1997) theory of reciprocal determinism, where self-efficacy beliefs are shaped by and shape the context. The physical aspects of motor disabilities may limit the opportunities to gain a sense of confidence, and thus, a sense of self-efficacy may remain moderate. This sentiment resonates with the normative self-efficacy literature that still posits the phenomenon as important to build on and reinforce in the presence of positive coping strategies as self-efficacy is connected to resilience. Factors in the environment, such as encouragement from family, have been shown to enhance the connectedness further (Fatal & Suleiman, 2021; Muhammad, 2022).

Participants showed moderate levels of psychological immunity as an integrated construct consisting of cognitive, emotional, and behavioral components of resilience. Amongst its components, psychological immunity as the self-regulatory protective system of A. Dubey and D. Shahi (2011), which enables the individual to convert adversity into personal development, was mainly characterized by self-control and positive thinking. The connection between emotional discharge and positive thinking was the strongest, which implies that adaptive optimism--the psychological defensive system of Olah et al. (2010) is primarily cultivated via positive emotional expression. Psychological self-efficacy, the constellation of coping strategies, and psychological immunity portray another triadic mechanism that keeps resilience active. While coping serves as the behavioral conduit, self-efficacy as the cognitive motivational construct and psychological immunity as the overall adaptive outcome. The triadic construct aligns with the salutogenic perspectives of health, which emphasize that the individual's positive state of health is the outcome of adaptive resources of cognition and behavior, rather than an absence of disease (Eriksson & Lindström, 2014).

A person's adaptations to their environment—including psychological adaptations—are influenced by socio-cultural factors, which is also the case in Saudi Arabia. Saudis derive their emotional balance, psychological resiliency, and psychological immunity from their cultural values of family closeness, trust in God, and patience. Saudi Arabia also has a cultural model for emotional communication and positively coping with conflict, which is community or spiritual communal coping and emotional coping as a coping resource (Montaser, 2016). Conversely, reliance on peer social networks and social support is weak, so inclusion challenges are apparent. Vision 2030 empowers external support networks, which may explain the decreases in persons with unmet goals. Yet, the internal psychological support or empowerment is still isolated. In the Vision 2030 National plan, the psychological support is still to be programmed in. The results of this study are consistent with findings of other researchers which identify adaptive coping as the most critical component in resilience, particularly psychological resilience, in the disabled communities (Al-Rubaie & Al-Zuhaili, 2020; Al-Sherbiny & Abdel Salam, 2021; Hassan & Salem, 2022). Deficit centric views are challenged here. The perspective changes to strength, psychological empowerment, and self-determination, particularly for adolescents with motor impairments in Saudi Arabia.

Limitations:

Although the findings of this research provide valuable insights, there are several limitations that need to be taken into account. The cross-sectional study design merely offers descriptions of the relationships between variables, with no way to infer causation. Use of self-report measures, while practical, opens the possibility of social desirability bias, whereby respondents may overstate the accounts of their psychological states, or behaviors, and thereby diminish the validity of the self-reports. The sample consisted only of adolescents with motor disabilities, which may limit the findings, and insights gained may not be applicable to other types of disabilities, such as sensory disabilities or intellectual disabilities. Therefore, longitudinal or experimental designs are needed in future studies to determine causal relationships and structural equation modeling to assess the triadic relationships in the hypotheses stated. In addition, cross-national studies would be important in identifying which aspects of resilience are universal and which are culturally specific for adolescents with disabilities.

CONCLUSION AND RECOMMENDATIONS

This study shows substantial positive associations with the relationship of psychological resource of coping with coping self-efficacy and psychological immunity. Results demonstrate the greatest intensity use of coping strategies and positive confrontation, suggesting the strengthening of psychological constructs the individuals demonstrated as a whole shaped constellation coping and psychological immunity. This suggests constellation coping psychological immunity as a whole and in the individuals attests with psychological resilience and psychological growth in the population. Other recommendations include the coping optimism within the stress along with positive hope advocacy through goal directed workshops and counseling. Educating families of adolescents with disabilities about psychological self-efficacy and psychological immunity and toward Al self-efficacy. Psychological formal counseling with an emphasis on self-efficacy and problem solving, teaching goal directed, emotionally aimed, and counseling psychological resilient along psychological Al laws. Psychological support services directed to adolescents with disabilities, to improve their social integration and mental health should strengthen. Encouragement of research on coping, psychological security, bullying, and the effect of counseling on psychological immunity, should follow. Such objectives to improve psychological support services for adolescents with disabilities, and promote coping strategies, align with the Saudi Vision 2030 objectives to disabled youth empower for social inclusion and personal flourishing. These objectives promote the Saudi 2030 vision to disabled youth empowerment to social inclusion and personal flourishing, which shows social.

Author contributions

Author Contributions: Conceptualization: N.A and H.A. Data Collection: N.A and H.A.. Data Analysis: N.A and H.A. Resources: N.A and H.A. Writing—Original Draft Preparation: N.A and H.A. Writing—Review & Editing: N.A and H.A. Funding Acquisition: H.A.

Funding: This study was funded by the Deanship of Scientific Research, Najran University, Saudi Arabia, under the Scholars Funding Program grant code No (NU/GP/SEHRC/13/670-1)

Acknowledgements:The authors are thankful to the Deanship of Graduate Studies and Scientific Research at Najran University under the Scholars Funding Program grant code (NU/GP/SEHRC/13/670).

Institutional Review Board Statement:

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. In addition, the protocol for the study was approved by the Research Ethics Committee at Najran University.

Data availability: the datasets used and/or analysed during the current study available from the corresponding author on reasonable request.

REFERENCES

1. Abd Albadeea, S. (2012). Improving methods of coping with academic pressures and reducing the hormone adrenocorticotrophin among female high school students [Master's thesis, Ain Shams University]. Cairo.
2. Aggab, Z., & Aouine, B. J. ١ .و .ا .م. (2025). Construction of a Psychological Immunity Scale for Middle School Students. 12(4), 428-454.
3. Ahmad, M., Alzayyat, A., & Al-Gamal, E. J. J. o. N. M. (2018). Coping behavior inventory: Psychometric properties with Arab universities' students. 26(1), 1-11.

4. Al-Rashidi, S., & Al-Arfaj, A. (2022). Self-Esteem and its Relationship to Coping Strategies of Gifted Students in Al-Ahsa. Arab Journal for Specific Education, 185-226.
5. Al-Rubaie, S., & Al-Zuhaili, G. M. (2020). Psychological Immunity and its relationship to Coping Styles among Damascus University Students. Al-Baath University Journal, Educational Sciences Series, 42(29), 99-159.
6. Al-Shanawani, I. M. (2019). Constructing a measure of psychological immunity for female students in the College of Sports for Girls. Assiut Journal of the Sciences and Arts of Physical Education, 3(49), 168-192.
7. Al-Sherbiny, A., & Abdel Salam, M. M. (2021). Psychological Immunity and its Relationship to Coping Strategies Styles among Families of Children with Autism Spectrum Disorder during Corona Pandemic. Educational Journal, 88, 815-856.
8. Al-Zayat, F. (2001). The factor structure of academic self-efficacy and its determinants. The Sixth Annual Conference: Quality of Life, Cairo.
9. Albert-Lorincz, E., Albert-Lorincz, M., Kádár, A., Enikö, T., & Lukács-Márton, R. (2012). Relationship between the Characteristics of the Psychological Immune System and the Emotional Tone of Personality in Adolescents. The New Education Review, 23(1), 103-115.
10. Ali, F. (2019). The Effectiveness of the Behavioral Cognitive Therapy Program in Reducing the Severity of Acquired Disability and Improving the Self-efficacy of a Sample of University Students with Physical Disability. Journal of Scientific Research in Education, 20(14), 281-330.
11. Alioat, S., & El Keshky, M. (2023). The Effectiveness of a Counseling Program in Developing Stress Coping Strategies and its Effect on Psychological Immunity among Saudi Female University Students. Saudi Journal of Psychological Counseling, 1(1), 139-165.
12. Bandura, A. (1997). Self-Efficacy: The Exercise of Control. W. H. Freeman and Company.
13. Bandura, A. J. S.-e. b. o. a. (2006). Guide for constructing self-efficacy scales. 5(1), 307-337.
14. Barbanell, L. (2009). Breaking the Addiction to Please: Goodbye Guilt. Jason Aronson, an imprint of Rowman & Littlefield.
15. Bondarchuk, O., Balakhtar, V., Pinchuk, N., Pustovalov, I., & Pavlenok, K. J. M. R. (2024). Coping with stressfull situations using coping strategies and their impact on mental health. 7.
16. Cai, C., Mei, Z., Wang, Z., & Luo, S. J. F. i. P. (2025). School-based interventions for resilience in children and adolescents: a systematic review and meta-analysis of randomized controlled trials. 16, 1594658.
17. Cattelino, E., Testa, S., Calandri, E., Fedi, A., Gattino, S., Graziano, F.,…Begotti, T. J. C. P. (2023). Self-efficacy, subjective well-being and positive coping in adolescents with regard to Covid-19 lockdown. 42(20), 17304-17315.
18. Cooper, C., Katona, C., Livingston, G. J. T. J. o. n., & disease, m. (2008). Validity and reliability of the brief COPE in carers of people with dementia: the LASER-AD Study. 196(11), 838-843.
19. Dahlbeck, D. T., & Lightsey Jr, O. R. J. C. s. H. C. (2008). Generalized self-efficacy, coping, and self-esteem as predictors of psychological adjustment among children with disabilities or chronic illnesses. 37(4), 293-315.
20. Deepthi, D., Jeyavel, S., Subhasree, G., & Jojo, C. E. J. F. i. P. (2022). Proactive coping and social-emotional adjustment among students with and without learning disabilities in Kerala, India. 13, 949708.
21. Dehghan, P., Aynehchi, A., & Saleh-Ghadimi, S. (2023). The association of self-efficacy and coping strategies with body mass index is mediated by eating behaviors and dietary intake among young females: A structural-equation modeling approach. PLOS ONE, 18(1), 1-41.
22. Dubey, A., & Shahi, D. (2011). Psychological Immunity and Coping Strategies: A Study on Medical Professionals. Indian Journal of Social Science Researches, 8(1-2), 36-47.
23. Dubey, A., & Shahi, D. J. I. J. S. S. R. (2011). Psychological immunity and coping strategies: A study on medical professionals. 8(1-2), 36-47.
24. El Sharif, R. (2016). The Effectiveness Of A Counseling Program To Strengthen The Mental Immune System And Reduce Post-Traumatic Stress Disorder Among Adolescents Of Families Affected by the Recent Aggression on Gaza [Master's thesis, Islamic University]. Gaza.
25. Eriksson, M., & Lindström, B. (2014). The salutogenic framework for well-being: Implications for public policy. In T. J. Hämäläinen & J. Michaelson (Eds.), Well-being and beyond: Broadening the public and policy discourse (pp. 68-97). Edward Elgar Publishing.
26. Fatal, S., & Suleiman, A. (2021). Parental Support and its Relationship to Psychological Hardness and Self-Efficacy among Disabilities' Motor Due to Traffic Accidents. International Journal of Research in Educational Sciences, Humanities, Arts and Languages, 2(9), 101-123.
27. Fung, L. Y. (2010). A Study on the Self-Efficacy and Expectancy for Success of Pre-University Students. European Journal of Social Sciences, 13(4), 514-524.
28. Gahungu, O. N. (2007). The relationships among strategy use, self-efficacy, and language ability in foreign language learners [Doctoral dissertation,
29. Gilar-Corbi, R., Perez-Soto, N., Izquierdo, A., Castejón, J.-L., & Pozo-Rico, T. J. F. i. P. (2024). Emotional factors and self-efficacy in the psychological well-being of trainee teachers. 15, 1434250.

30. Gupta, T., Nebhinani, N. J. J. o. I. A. f. C., & Health, A. M. (2020). Building Psychological Immunity in Children and Adolescents. In (Vol. 16, pp. 1-12): SAGE Publications Sage India: New Delhi, India.
31. Hammad, M. A., Al-Otaibi, M. N., & Awed, H. S. (2024). Child maltreatment among deaf and hard-of-hearing adolescent students: associations with depression and anxiety [Original Research]. Volume 15 - 2024. https://doi.org/10.3389/fpsyg.2024.1287741
32. Hammad, M. A., & Awed, H. S. (2023). Thinking styles and their relationship with self-efficacy among deaf and hard-of-hearing adolescent students. Current Psychology, 42(29), 25880-25893. https://doi.org/10.1007/s12144-022-03597-8
33. Hammad, M. A., Awed, H. S. J. H., & Reviews, S. S. (2020). Prevalence of cyberbullying and traditional bullying and their relationship to self-esteem among hearing-impaired adolescents. 8(2), 167-178.
34. Hammad, M. A., & Shalhoub, H. A. B. (2024). Effects of a Mindfulness-Based Program in Improving Self-Regulation and Attention Among Hard-of-Hearing Children: A Preliminary Investigation. Mindfulness, 15(11), 2929-2939. https://doi.org/10.1007/s12671-024-02414-6
35. Hammad, M. J. I. J. M. S. T. (2023). Social media addiction and its relationship to symptoms of depression and generalized anxiety in deaf and hard-of-hearing students. 10, 317-323.
36. Hassan, S. M., & Salem, R. M. (2022). Coping Strategies as Mediation Variables between Psychological Immunity Systems and Psychological Adjustment among Fourth Graders Students of Primary School. Egyptian Journal of Psychological Studies, 32(115), 142-200.
37. Hassani, F. (2015). Strategies For Coping With Psychological Stress And Their Relationship To Quality Of Life Among School-Educated Adolescents (13–15 Years Old) [Master's thesis, University of Kasdi-Merbah Ouargla, Algeria]. Ouargla.
38. Jiang, Y., Liu, C., Yan, J., & Wang, L. J. S. r. (2025). The joint role of school adaptation and physical activity in the nonlinear effect of adolescent self-control and mental health. 15(1), 25277.
39. Kagan, H. (2006). The Psychological Immune System: A New Look at Protection and Survival. Library of Congress.
40. Kariri, H., & Hakmi, S. (2021). Self-Awareness and its Correlation with Psychological Immunity among Teachers of Disabled Learners at Jazan Directorate of Education. Journal of Education, 3(190), 1-43.
41. Kato, T. J. S., & Health. (2015). Frequently used coping scales: A meta-analysis. 31(4), 315-323.
42. Kaur, T., & Som, R. (2021). The Predictive Role of Resilience in Psychological Immunity: A Theoretical Review. International Journal of Current Research and Review, 12(22), 139-143.
43. Kleppang, A. L., Steigen, A. M., & Finbråten, H. S. J. B. p. h. (2023). Explaining variance in self-efficacy among adolescents: the association between mastery experiences, social support, and self-efficacy. 23(1), 1665.
44. Larsen, R. J., Augustine, A. A., & Prizmic, Z. (2009). A process approach to emotion and personality: Using time as a facet of data. Cognition and Emotion, 23, 1407-1426.
45. Layas, B. (2017). Strategies for dealing with psychological stress and its relationship to the level of anxiety and depression among the physically disabled. Al-Hikma Journal for Educational Studies, 9, 112-133.
46. Lewitus, G. M., & Schwartz, M. J. M. p. (2009). Behavioral immunization: immunity to self-antigens contributes to psychological stress resilience. 14(5), 532-536.
47. Manuel, F., Victoria, M., Miranda, J., & Cándido, I. (2016). Prevalence of strategies for coping with daily stress in children. Psicothema, 28(4), 370-376.
48. Mohammed, F. K., Soumendra, N. M., Archana, R., Kumar, S. S., Aruna, S., & Soumya, M. (2016). Depression, anxiety and stress levels among second year MBBS students. Research Journal of Pharmaceutical, Biological and Chemical Sciences, 6, 1310-1313.
49. Montaser, A. M. (2016). Social service and the empowerment of the physically disabled and the socially vulnerable. Journal of Social Work, 164, 55-180.
50. Muhammad, J. (2022). Self-efficacy and its relationship to positive thinking among people with motor disabilities in Omdurman locality [Unpublished master's thesis, Al-Nilein University]. Khartoum.
51. Muris, P. J. J. o. P., & Assessment, b. (2001). A brief questionnaire for measuring self-efficacy in youths. 23(3), 145-149.
52. Mustafa, A. M. (2022). Program for Developing Coping Strategies for Pre-School Child. Scientific Journal of the College of Early Childhood Education in Port Said, 23(1), 1-81.
53. Nolen-Hoeksema, S., Larson, J., & Larson, J. M. (2013). Coping with loss. Routledge.
54. Olah, A., Nagy, H., & Toth, K. G. (2010). Life Expectancy and Psychological Immune Competence in Different Cultures. ETC Empirical Text and Culture Research, 4, 102-108.
55. Porcelli, P., Ungar, M., Liebenberg, L., & Trépanier, N. (2014). (Micro) mobility, disability and resilience: exploring well-being among youth with physical disabilities. Disability & Society, 29(6), 863-876.
56. Qureshi, F. (2011). Religiosity and its relationship to self-efficacy among patients with cardiovascular disorders [Master's thesis, Hajj Lakhdar University].

57. Scholz, U., Doña, B. G., Sud, S., & Schwarzer, R. J. E. j. o. p. a. (2002). Is general self-efficacy a universal construct? Psychometric findings from 25 countries. 18(3), 242.
58. Schunk, D. H. (2001). Social cognitive theory and self-regulated learning. In B. Zimmerman & D. Schunk (Eds.), Self-Regulated Learning and Academic Achievement: Theoretical Perspectives (2nd ed.) (pp. 125-151).
59. Široká, K., Antalová, A., & Čechová, D. J. E. J. o. M. H. (2024). The Psychological Immune Competence Inventory: A Pilot Validation Study in Slovakia. 19, 1-15.
60. Szelesne, E. (2006). Examination of psychological immune system on the basis of individual psychological interpretation of the memories of early childhood.
61. Tsibidaki, A. J. R. i. d. d. (2021). Anxiety, meaning in life, self-efficacy and resilience in families with one or more members with special educational needs and disability during COVID-19 pandemic in Greece. 109, 103830.
62. Valentine, J. C., DuBois, D. L., & Cooper, H. (2004). The relations between self-beliefs and academic achievement: A systematic review. Educational Psychologist, 39, 111-133.
63. Vitaliano, P. P., Russo, J., Carr, J. E., Maiuro, R. D., & Becker, J. J. M. b. r. (1985). The ways of coping checklist: Revision and psychometric properties. 20(1), 3-26.
64. Wang, S., Quan, L., Chavarro, J. E., Slopen, N., Kubzansky, L. D., Koenen, K. C.,…Roberts, A. L. (2022). Associations of depression, anxiety, worry, perceived stress, and loneliness prior to infection with risk of post–COVID-19 conditions. JAMA psychiatry, 79(11), 1081-1091. https://doi.org/DOI: 10.1001/jamapsychiatry.2022.2640
65. Wilson, T. D., & Gilbert, D. T. (2005). Affective forecasting: Knowing what to want. Current Directions in Psychological Science, 14(3), 131-134.
66. Yin, Y., Lyu, M., Chen, Y., Zhang, J., Li, H., Li, H.,…Zhang, J. J. F. i. P. (2022). Self-efficacy and positive coping mediate the relationship between social support and resilience in patients undergoing lung cancer treatment: a cross-sectional study. 13, 953491.
67. Zamiri, M., & Esmaeili, A. (2024). Strategies, methods, and supports for developing skills within learning communities: A systematic review of the literature. Administrative Sciences, 14(9), 231.
68. Zidane, E. M. (2013). Psychological Immunity, Its Concept, Dimensions and Measurement. Journal of the Faculty of Education, Tanta University, 51, 718-865.