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RESEARCH PAPER

Impact of Self-Efficacy on Mental Health Literacy: Moderated by Perceived Stress among Young Adults

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ABSTRACT

This study explored the relationship between self-efficacy and mental health literacy for young adults, with perceived stress being examined as a moderator. Using validated measures, the study found a strong positive relationship between self-efficacy and mental health literacy. Regression showed that self-efficacy was a statistically significant predictor of mental health literacy. Moderation analyses revealed that perceived stress moderates the relationship between self-efficacy and mental health literacy, the higher a person's perceived stress, the weaker the relationship reported. These findings suggest that improving self-efficacy could improve knowledge and awareness surrounding mental health issues, however, high levels of stress will impact this finding. Overall, this study underlines the importance of psychological resources in positive health-enabling behaviors, and calls for the design and implementation of stress-reduction and integrated mental health literacy educational programs for youth. Future recommendations includes that universities should design a number of workshops targeting self-efficacy related to health behavior, alongside objectives designed to reduce stress. Recommendations for future incorporates that mental health campaigns should seek to increase their effectiveness through the co-consideration of coping tools along with psycho-education.

KEYWORDS Self-Efficacy, Mental Health Literacy, Perceived Stress, Young Adults, Moderation, Psychological Well-Being

Introduction

Self-efficacy - a term coined by Albert Bandura (1997) - refers to the belief an individual has in their capability to successfully accomplish tasks and navigate new situations. Self-efficacy is pivotal because it influences how people think, feel, and behave. A strong self-efficacy leads to productivity and/or fulfillment, but when self-efficacy is weak, it will typically result in feelings of helplessness, an aversion to difficult scenarios, and is related to stress and depression (Bandura, 1997). In educational and health contexts, self-efficacy has predictive abilities for not only performance, but the extent an individual engages in learning and that individual's persistence to continue with things when they encounter difficulty.

For young adults, self-efficacy serves as the groundwork for mental and emotional regulation. Higher self-efficacy has been linked to proactive coping behaviours and lower levels of psychological distress (Luszczynska et al., 2005). Self-efficacy as a personal resource can shape how well young adults cope with academic challenges, interpersonal conflict, and transition-related stressors - all aspects of development during this period. Thus, self-efficacy is a psychological resource for young

adults we consider protective, that can enhance resilience in challenging environments such as university settings.

Additionally, the concept of self-efficacy affects health-related behaviors, including how individuals find, comprehend, and act on mental health information. Research indicates individuals with high self-efficacy are more likely to engage in health-promoting behavior, to reach out for help, and to respond positively to mental health challenges (Schwarzer & Luszczynska, 2007). This implication could suggest there is a relationship between self-efficacy and mental health literacy whereby confident individuals are better equipped to understand mental health principles, recognize symptoms, and find ways to use resources.

In the age of technology where there are increasingly more online mental health resources, it is possible self-efficacy helps determine one's ability to navigate credible information and then take action on it. In a study by Hennemann et al. (2018), it was determined that students with high levels of general and health-specific self-efficacy were more able to apply psycho-educational content with real-world problems, improving their psychological literacy. Thus, for young adults specifically, building self-efficacy not only encourages positive mental health outcomes but may also improve one's ability to navigate complexities in mental health systems and concepts—in turn directly connecting it to mental health literacy.

Mental Health Literacy

Mental health literacy (MHL) is a concept originally defined by Jorm et al. (1997) as the knowledge and beliefs about mental disorders that help recognition, management, or prevention. The construct of MHL has changed over time to encompass understanding how to sustain good mental health, minimize stigma, and find support when needed. MHL is especially important for young adults in today's society, as many experience mental health concerns yet recognize that they lack resources and ways to address these concerns. In low- and middle-income countries, such as Pakistan, low mental health literacy levels and high mental health stigma levels reinforce the need to help people enhance their MHL levels at the community level and university level (Wei et al., 2021).

MHL is linked to better psychological outcomes, including lower anxiety and depression symptoms and improved help-seeking intentions, according to studies in the literature (Gorczynski et al., 2020). While university students report experience with mental health distress, they can benefit from effective mental health literacy. University students with higher MHL reported the ability to identify symptoms in themselves or someone close to them, committed to self-care and prevention, and expressed a willingness to use professional services when necessary. In a stimulating paper, Fernandes et al., (2023) reported that students with adequate MHL levels exhibited higher emotional regulation, lower levels self-stigma, and more resilience during stressful events. Some researchers are familiar with the argument that MHL predicts mental health, but MHL is also an essential aspect of psychological well-being.

Moreover, MHL appears to be influenced by personal factors such as self-efficacy, coping strategies, and access to credible information. Individuals with higher self-efficacy may find it easier to process, apply, and benefit from mental health knowledge. According to Chao and Jin (2023), MHL may mediate the link between psychological resources (e.g., self-efficacy, optimism) and reduced mental health distress. This points toward a dynamic interplay where cognitive appraisals and knowledge combine to

create stronger psychological protection, especially during developmental transitions common in young adulthood.

Despite growing awareness, several barriers still impede MHL development, including cultural misconceptions, fear of judgment, and lack of institutional support. For example, in South Asian societies, emotional difficulties are often attributed to spiritual causes or personal weakness, which discourages open discussion and help-seeking (Aziz et al., 2025). Educational interventions, peer-led workshops, and digital campaigns tailored to youth culture have shown promise in addressing these gaps. Integrating MHL into university curricula or orientation programs may offer a scalable, preventative approach to reducing mental health burden among students.

Perceived Stress

Perceived stress refers to an individual's subjective evaluation of how unpredictable, uncontrollable, and overwhelming they think their life is (Cohen et al., 1983). Perceived stress is fundamentally different from objective stressors, as here the variability in perceived stress includes one's emotional and cognitive response to daily challenges. In young adulthood—which is a developmental stage that has many transitions, including those surrounding education, social interaction, and employment—perceived stress has the ability to significantly influence psychological functioning. Research has shown that higher levels of perceived stress are associated with poorer mental health outcomes, such as anxiety, depression, and life satisfaction (Alsubaie et al., 2019). Perceived stress is an important psychological construct, as it expresses the external characteristics of stressors, but also reflects the individual's psychological ability to manage the demands.

Several studies have established that perceived stress has a negative effect on students, perceived stress negatively influences academic performance, students' well-being, and mental health literacy. Young adults that experience high level stress, are more likely to misinterpret or dismiss mental health symptoms, prematurely avoid help-seeking, and rely on maladaptive coping strategies (Zhao et al., 2022). Perceived stress reduces students' ability to access, comprehend, and use mental health knowledge. In addition, stress has a deleterious impact on attention, memory, and emotional regulation—all cognitive capacities necessary to engage with mental health information and psycho-education (Pascoe et al., 2020). Overall, perceived stress can act as a barrier to positive outcomes.

Notably, perceived stress also has a moderating role in psychological models of self-efficacy and mental health outcomes. For example, individuals with high self-efficacy might experience negative consequences to mental health status while they also report high levels of perceived stress (Gan et al., 2021). When perceived stress is low, the protective factors of self-efficacy and mental health literacy are enhanced and offer young people a better chance of well-being. This role as a relatively contextual variable illuminates a duality associated with perceived stress, it is important to treat perceived stress as a risk factor as well as a contextual condition for psychological vulnerability, buffering psychological vulnerability; but acknowledging that it can exacerbate psychological vulnerability.

In culturally diverse contexts such as Pakistan, students may not only face perceived stressors that arise from their educational context, but other types of perceived stressors such as challenging socioeconomic conditions, familial pressure, and limited

access to mental health resources may greatly exacerbate their perceived stress levels beyond reasonably expected conditions. These pressures persist even despite having higher levels of internal strengths. Understanding the intersection of perceived stress with self-efficacy and mental health literacy is imperative in planning interventions. Future interventions should consist of mental health literacy programming that includes education about how reduces a person's perception of stress (eg, mindfulness practices, cognitive-behavioral training, time management training, etc.) that has the potential to better reduce the perceived stress on mental health literacy and outcomes of young adults.

Literature Review

Self-efficacy, or the belief in one's ability to engage in behaviors that produce a desired outcome (Bandura, 1997), is a significant factor in maintaining mental health. For example, a higher level of self-efficacy is associated with the ability to regulate emotions, manage stress, and cultivate psychological resilience (Schönfeld et al., 2019). For example, in both academic and social environments, self-efficacy is associated with the problem-solving and decision-making skills in young adults facing difficult emotional situations. Rahim and Farooq (2023) suggest that students with greater beliefs of self-efficacy have more confidence in managing psychological distress and the ability to seek help when needed. These positive actions suggest self-efficacy can act as a factor in how individuals approach their mental health, which could influence their mental health literacy.

Mental health literacy (MHL) is the knowledge and beliefs that enable individuals to recognize, manage or prevent mental health problems (Jorm et al., 1997). There is a growing need for MHL particularly for young adults, who face high rates of psychological distress but underutilize mental health services (Gorczynski et al., 2021). There is growing evidence that people with higher MHL are more likely to be able to identify mental health symptoms, take preventative actions and assist peers in distress (Wei et al., 2015). In Pakistan, and many low- and middle-income countries, the low MHL is commonly worsened with stigma and lack of awareness (Aziz et al., 2025). Therefore, increasing MHL among young adults is an educational issue, as well as a public health issue.

The conceptual link between self-efficacy and MHL is theoretically based within Bandura's Social Cognitive Theory, wherein self-efficacy is thought to underpin the learning and applications of knowledge, such as health knowledge (Bandura, 2001). There is evidence that greater self-efficacy accompanies more motivation to seek information about health issues and more proactive engagement (Toghiani et al., 2022). In the context of mental health, students with a strong belief in their self-efficacy to cope with stress and emotions are likely to value, and apply, MHL. This suggests a potential directional relationship whereby greater self-efficacy leads to greater engagement and use of mental health knowledge.

It is conceivable that perceived stress could act as a moderating variable in the relationship between self-efficacy and mental health literacy. Perceived stress refers to the appraisal of situations as overwhelming or uncontrollable (Cohen et al., 1983). Stress can negatively affect cognitive functions (e.g., thinking, reasoning, problem-solving, and memory), hinder help-seeking amongst individuals, and increase their risk for psychopathology (Gan & Yuen Ling, 2019). Recent work conducted by Fernandes et al. (2023) suggests, young adults who are experiencing higher levels of stress tend to

disengage from mental health services they may have otherwise utilized, regardless of the accessibility of these services. Consequently, perceived stress can interfere with self-efficacy to enhance mental health literacy by interfering with motivation, attention, and use of resources, exposing the extent to which addressing and recognizing stress-related experiences within mental health-related interventions for youth is vital.

The research suggests a interconnected relationship between self-efficacy, mental health literacy, and perceived stress in young adults. Self-efficacy may facilitate the interaction with mental health literacy and resources, however, high perceived stress may inhibit this interaction. Understanding the conditions under which perceived stress, moderates the relationship between self-efficacy and mental health literacy will be fundamental when designing interventions that foster psychological resilience and knowledge in youth. Future research should examine these issues longitudinally as well as among racially and culturally diverse populations. Findings will contribute to better understanding how mental health literacy is incorporated into targeted mental health education initiatives.

Hypotheses

1- There is strong positive association between self-efficacy and mental health literacy among young adults.

2- There is substantial impact of self-efficacy on mental health literacy among young adults.

3- Perceived Stress moderates the association between self-efficacy and mental health literacy among young adults.

Material and Methods

Research Design

Cross-section research design was employed.

Sample

300 young adults were recruited in the study from public and private universities of Pakistan.

Sampling Technique

Participants were selected through convenient sampling from various universities, ensuring easy access and voluntary participation. This method allowed inclusion of students who were readily available and willing to take part in the study.

Instruments

Self-Efficacy Scale

The General Self-Efficacy Scale (GSES; Schwarzer & Jerusalem, 1995) is comprised of 10 items, which assess a person's optimistic self-beliefs in their ability to cope with a wide variety of difficult demands of life. The measure is a uni-dimensional scale and is not broken down into subscales. The GSES has been extensively used in clinical and non-

clinical populations and reflects perceived self-efficacy specific to daily functioning and problem-solving. The GSES has been shown to have good internal consistency across studies, where a Cronbach's alpha typically ranged between .76 to .90. The GSES also demonstrated strong construct and convergent validity across cultural contexts (Scholz et al., 2002).

Mental Health Literacy Scale

The Mental Health Literacy Scale (MHLS; O'Connor & Casey, 2015) contains 35 items that measure the many components of mental health literacy, such as ability to recognize disorders, knowledge of risk factors and causes, self-treatment, accessibility to professional help, and acknowledging attitudes that facilitate recognition or help-seeking. The MHLS is a category of individual components under the six sub-components associated with Jorm's original mental health literacy definition. The MHLS has been validated with university students, and in adult general populations, the findings suggest good reliability (with Cronbach's alpha around .87) and satisfactory content and construct validity (O'Connor & Casey, 2015).

Perceived Stress Scale

Cohen, Kamarck and Mermelstein's (1983) Perceived Stress Scale (PSS) is a 10-item (there are also 14- and 4-item versions) measure of level of perceived stress they experience in their life situations. The scale is unidimensional, although some research has supported the existence of emotional and coping subcomponents. The scale is intended to assess perceived stress in the past month, especially the feelings of unpredictability, lack of control, and overload. The 10-item version has adequate internal consistency (Cronbach's alpha of .74-.91 for various populations). Validity was achieved through correlations with depression, anxiety, and health behaviors (Cohen & Williamson, 1988).

Results and Discussion

Table 1
Descriptive Characteristics of the Study Sample (N=300)

Variable			n	%
Gender				
	Women		140	46.67
	Men		160	53.33
Family Structure				
	Nuclear		130	43.33
	Joint		170	56.67
Residence				
	Rural		120	40.00
	Urban		180	60.00
VAR	M	SD	Min	Max
Age	24.39	3.12	16	26

The characteristics describing the sample surveyed reveal a relatively equal interview of each gender, where one gender was slightly more represented. Participants belonged to both nuclear and joint family systems, with all joint families being more evident. The participants consisted of both rural and urban dwellers, with the urban area a mix of local or surrogate dwelling, as well as a slight preponderance of urban dwellers. The participants' ages reflected a young adult sample conforming to the age for attending

university and moderately heterogeneous. While all the characteristics of the sample provide a basic form of context to the study psychological variables observed.

Table 2
Psychometric Properties of Study Variables (N=300)

					Actual	Potential		
Scales	*K*	α	*M*	*SD*	Range	Skewnes	Kurtosis	
SES	10	.82	15.45	5.12	11-45	11-50	.64	.72
MHLS	35	.85	33.60	8.41	37-165	35-175	1.76	2.54
PSS	14	.78	11.86	5.65	14-65	14-70	.24	.48

Note. SES= Self-efficacy Scale; MHLS= Mental Health Literacy Scale; PSS=Perceived Stress Scale

Table 2 displays that all study scales: Self Efficacy Scale (SES), Mental Health Literacy Scale (MHLS) and Perceived Stress Scale (PSS) all reveal good internal consistency (Cronbach's alpha > .75, according to George & Mallery, 2010). The skewness and kurtosis were each in acceptable ranges implying a normal distribution was a reasonable assumption. Therefore, overall, the measures were reliable and credible in the sample participants (Nunnally & Bernstein, 1994; George & Mallery, 2010).

Table 3
Correlation among Study Variables (N= 300)

VAR	1	2	3
1 SES	-		
2 MHLS	.72**	-	
3 PSS	-.32**	.39**	-

Note*: SES= Self-efficacy Scale; MHLS=Mental Health Literacy Scale; PSS= Perceived Stress Scale *p < .05, **p< .01.*

In Table 3, we report the Pearson correlation coefficients of self-efficacy (SES), mental health literacy (MHLS), and perceived stress (PSS) for a sample of 300 participants. Our investigation found a strong positive relationship between self-efficacy and mental health literacy, as people who said they had higher belief in their abilities to perform tasks also presented more knowledge and awareness about mental health conditions. Self-efficacy also significantly correlated with perceived stress in a negative way, meaning that the people who had stronger self-efficacy said that they had lower stress levels. Mental health literacy was positively correlated with perceived stress, which may reflect that individuals who have more mental health awareness may be more likely to recognize and report feelings of stress. This finding is consistent with the literature about how cognitive, emotional, and informational resources are all interrelated in facilitating psychological well-being.

Table 4
Multiple Linear Regression predicting Mental Health Literacy (N=300)

Predictor	B	SE	β	T	p
Constant	7.28***	2.97		4.62	.00
SES	.56***	.15	.42	8.54	.00
PSS	-.27***	.09	.31	-11.92	.00
R^2	.21***				
F	56.45***				

Note. SES=Self-efficacy Scale; PSS= Perceived Stress

Results from the multiple linear regression analysis found that self-efficacy and perceived stress together significantly predicted mental health literacy in a combined model. Self efficacy was a strong positive predictor of mental health literacy, which strongly suggests that individuals that are more confident in their skillsets and abilities have greater knowledge and awareness surrounding mental health. Perceived stress was found to be a significant detrimental predictor meaning that those who score high on self-reported distress have relatively low mental health literacy potentially due to not having the bandwidth to process their mental health needs in relation to other aspects of their lives. This model accounted for a meaningful amount of variance in mental health literacy, and suggests that, collectively, the combination of both factors does predict the constructs relating to understanding mental health and functioning effectively regardless of your mental health. The meaningful and significant findings from this study emphasize the importance of building self-efficacy and decreasing stress through community building and connection as a means to improve awareness and educational strategies around mental health.

Table 5

Moderating role of Perceived Stress between Self-efficacy and Mental Health Literacy

				95% CI		
Variables	*B*	*SE*	*t*	*LL*	*UL*	*p*
Constant	54.97***	10.61	5.26	13.65	52.74	.00
SES	.62	.38	3.67	.38	.67	.00
PSS	-.45	.21	3.42	.31	.78	.00
SES x PSS	.27	.09	2.45	.08	.12	.04
R^2	.12					
ΔR	.08					

Note. SES=Self-efficacy Scale; PSS= Perceived Stress Scale; B = Standard Coefficient, SE = Standard Error, Cl = Confidence Interval, LL = Lower Limit, UL = Upper Limit

The moderation analysis sought to determine whether perceived stress acted as a moderator in the relationship between self-efficacy and mental health literacy. The results provided evidence of a significant interaction effect of self-efficacy and perceived stress, indicating that the strength of the relationship between self-efficacy and mental health literacy is conditional upon levels of perceived stress. Specifically, perceived stress appeared to weaken the positive relationship that self-efficacy had with mental health literacy, whereas when stress was lower, the positive effect of self-efficacy on mental health literacy was stronger. This interaction suggests a complex relationship among personal and emotional resources, and more simply that stress is interfering with the positive relationship of self-efficacy and one's understanding and management of mental health issues.

Discussion

The goal of the present study was to explore the impact of self-efficacy on mental health literacy among young adults and the potential role of perceived stress as a moderator. To investigate these relationships, we utilized three standardized and psychometrically validated scales: the Self-Efficacy Scale (SES), the Mental Health Literacy Scale (MHLS), and the Perceived Stress Scale (PSS). Table 2 presents the internal consistency estimates (Cronbach's alphas) for the three scales: ... Across the sample for the present study, we found acceptable internal consistency for all scales, with Cronbach's alpha values from .78 to .85. Therefore, the scales have good reliability to measure the constructs in the scope of the present study. Additionally, all variables

exhibited values of skewness and kurtosis within acceptable ranges, which substantiates the normality of the data and allowed for parametric analysis.

The descriptive and correlational analyses utilizing the three key variables (see Table 3) indicated numerous relevant, significant relationships. First, self-efficacy positively correlated with mental health literacy with a strong correlation coefficient, as perceptions related to stress related negatively to both self-efficacy and mental health literacy measures. The positive relationship between self-efficacy and mental health literacy is understandable considering self-efficacy supports one's beliefs about being familiar with, and with the ability to better understand mental health, and being more able to deal with emotional struggles. Second, the significant, positive correlation documented between self-efficacy and mental health literacy measures indicates that perceptions of becoming more able to deal with life situations coincided with those perceptions of being able to recognize, understand, and respond to mental health opportunities. Lastly, higher reported perceived stress appeared to undermine the value of mental health awareness measures; also treeing into stress to be an avoidance of insight and knowledge of mental health.

This study accepts Hypothesis 1, which proposes a strong positive association between self-efficacy and mental health literacy in young adults, and is supported by previous studies. The considerable positive correlation displayed in the current research shows that the more self-efficacy an individual possesses and belief in their self, as in their ability to manage daily life challenges— the more positive knowledge, understanding of issues surrounding mental health there will be. This study's findings also resonate with Zhao et al. (2021), who found that students who had higher self-efficacy were also more likely to take part in activities that promote mental health behaviors as self-efficacy (increased literacy) allowing students to have more awareness, keep in their mind and see the benefits when they take action. The study conducted by Eltaiba and Samara (2022), also showed that self-efficacy significantly predicted mental health awareness in university students-- allowing one to believe that self-efficacy (to act) promotes the awareness of mental health literacy in behaviors so that it will act as a feature for "recognizing symptoms or behaviour" related to patients having or seeking help-seeking behaviors based on clinical nutritional reactions. Indicating that as young adults have more confident action when they have more awareness, they are more active in seeking, remembering, and applying mental health knowledge than lower levels of self-belief.

Hypothesis 2 that states that *there is a substantial impact of self-efficacy on mental health literacy among young adults* is also accepted, as shown by the results of multiple linear regression analysis. Self-efficacy emerged as a significant predictor of mental health literacy even after accounting for perceived stress, indicating its independent contribution. This is consistent with the findings of Kim and Park (2020), who found that self-efficacy positively influenced health literacy and mental health self-management behaviors in adolescents. Additionally, Liu et al. (2023) confirmed that higher self-efficacy not only correlates with better emotional regulation but also fosters proactive learning and engagement with mental health resources. Therefore, self-efficacy functions both as a motivational and cognitive resource that enhances one's mental health understanding, which is crucial for effective self-care and intervention.

Hypothesis 3 which states that perceived stress moderates the relationship between self-efficacy and mental health literacy in young adults was accepted and supported by the results of the moderation analysis conducted in this study. The

interaction effects suggest that self-efficacy and mental health literacy are related differently depending on the levels of perceived stress. In particular, when perceived stress is low, self-efficacy has a greater positive effect on mental health literacy, signifying that perceived stress acts as a suppressor. This finding supports Gao et al. (2021), who found perceived stress reduced cognitive and emotional resources to give appropriate attention to a mental health issue and make effective decision-making process. In addition, Rahman et al. (2022) noted that when perceived stress was high, individuals who reported high self-efficacy, faced barriers with their ability to use their knowledge of their mental health issue or seek help from sources due to emotional flood. This highlights the importance of including stress reducing components in future interventions that seek to increase mental health literacy as a result of enhanced self-efficacy.

Conclusion

Overall, this study provides evidence of the important role that self-efficacy has in increasing mental health literacy in young adults, even when accounting for perceived stress as an important moderating variable. Results showed that students with higher self-efficacy also had the knowledge and understanding of mental health and the ability to use this knowledge to recognize mental health issues, seek help and manage psychological issues. On the contrary, higher levels of perceived stress may reduce the positive impacts of self-efficacy indicating that high levels of stress could restrict the effective use of self-belief in relation to mental health. The present study indicates that integrated interventions to improve mental health literacy and promote psychological well-being in young people should focus on improving self-efficacy and how to manage stress, in order to have a significant impact on mental health literacy and overall mental well-being.

Recommendations

The current research highlights the importance of self-efficacy to improve mental health literacy in young adults, with perceived stress acting as a significant moderating effect. Results indicated that individuals with high self-efficacy tended to have greater knowledge and understanding of mental health, which can help facilitate the early identification, searching for help, and management of psychological difficulties. However, high levels of perceived stress could weaken this positive relationship, suggesting perceptions of stress may act to decrease the ability to apply one's self-belief meaningfully in the context of mental health. Given the information known about the importance of integrated approaches, it is possible to state that interventions that improve self-efficacy, as well as stress management, would enhance the impact on mental health literacy and improve psychological well-being in young people.

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