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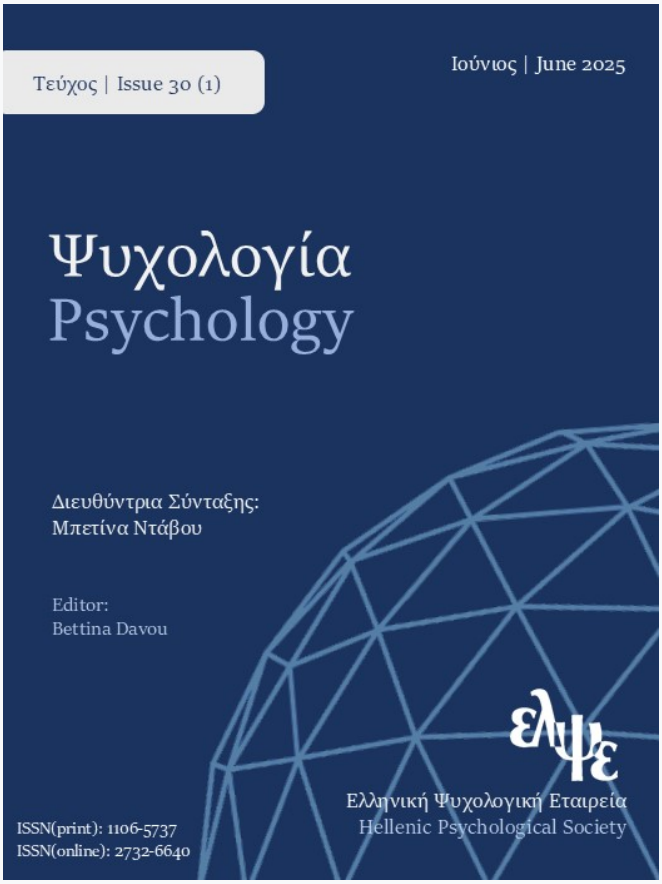

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Psychological distress: A Study on the potential roles of hope, self-esteem, and belongingness in a Moroccan University

Hatim BEN AYAD[1], Adil NAJDI[2], Meftaha SENHAJI[1]

1 UAE/Uo8FS, FS, Abdelmalek Essaâdi University, Tetouan, Morocco
2 Faculty of Medicine and Pharmacy, Abdelmalek Essaâdi University, Tetouan, Morocco

KEYWORDS

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CORRESPONDENCE

Ben Ayad Hatim
UAE/Uo8FS, FS, Abdelmalek Essaâdi University, Tetouan, Morocco
Department of Biology, Faculty of Sciences, BP 2121, Abdelmalek Essaâdi University, Tetouan, Morocco
Hatim.benayad@etu.uae.ac.ma

ABSTRACT

College students are susceptible to mental health challenges, and positive psychology has been proven effective in preventing and alleviating symptoms. This study aims to assess the association of hope, self-esteem, and belongingness with mental distress symptoms among Moroccan college students. A total of 1,150 participants (mean age 20.00, SD = 2.6; 703 females, 444 males) completed a questionnaire, encompassing the Arabic versions of the Trait Hope Scale, the Rosenberg Self-Esteem Scale, the Social Connectedness and Social Assurance Scales, and the Brief Symptoms Inventory. The findings indicate that being female, having a physical illness, taking medication for depression, anxiety, or sleep, and certain living arrangements significantly contribute to an escalation in mental distress symptoms. Additionally, hope, self-esteem, and belongingness were found to be significantly associated with lower mental distress symptoms across different groups. In summary, this study pinpoints potential risk factors associated with heightened mental distress symptoms and underscores the potential role of positive psychology in being associated with lower symptoms.

College student populations are particularly susceptible to the development of mental health problems (American College Health Association, 2008; Hunt & Eisenberg, 2010; Pedrelli et al., 2015). Indeed, they exhibit a significant prevalence of mental health issues on a global scale (Auerbach et al., 2016). Notably, most of the people suffering from mental illness do not receive treatment in many developing countries, such as Morocco (World health organization, 2019), leading to substantial economic and social repercussions (Knapp & Wong, 2020; WHO, 2004).

Furthermore, what exacerbates the severity of addressing mental illness also includes the limited utilization of mental health services by a small number of college students (Oswalt et al., 2020). College students grappling with mental illness often experience feelings of shame and fear of stigmatization (Michaels et al., 2015), further deterring them from seeking mental health services. In Morocco, the lack of mental health facilities, poor geographical distribution, inadequate architectural design, and insufficient equipment, along with a severe shortage of medical and paramedical staff, further limit access to care. Vulnerable populations receive minimal attention, highlighting the need for more proactive and preventive approaches (Aroui et al., 2017).

Moreover, psychological distress is linked to several factors that can worsen its symptoms. For example, mental distress has been shown to differ significantly between genders (Boyd et al., 2015; Drapeau et al., 2012). Additionally, living alone, engaging in unhealthy behaviors, poor physical health, and sleep problems are also associated with higher levels of distress (Agerup et al., 2015; Deasy et al., 2014; de Rooij et al., 2021; Ghrouz et

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al., 2019; Reeve et al., 2013; Saifullah et al., 2020). Among Moroccan college students, being female, having a physical illness, experiencing depression and anxiety, facing sleep disturbances, and living with only their mother or a relative other than their parents are linked to significantly higher psychological distress (Ben Ayad et al., 2024).

Emerging evidence suggests that promoting mental health should not solely rely on early identification and treatment but should also focus on preventive strategies (WHO, 2019). These preventive strategies primarily involve modifying exposure to risk factors and enhancing individuals' coping mechanisms, which is the primary focus of positive psychology (Seligman & Csikszentmihalyi, 2000; WHO, 2004).

Positive psychology manages to prevent mental illness thanks to the positive traits that can act as buffers. Seligman (2002) discussed in his paper how teaching optimism and how to use it leads to significant prevention of depression and anxiety disorders for two years. The same author also talked about coaching/training sessions that were efficient in preventing schizophrenia. Seligman and colleagues (2005) carried out happiness interventions which succeeded to increase happiness and decrease depressive symptoms. In addition, Seligman and colleagues (2005) suggested that psychologists working in family and school environments should consider enhancing their clients' positive attributes to help them shift from illness to health and protect them from future risks. However, positive psychology is still a new field that lacks much research about the factors that influence positive traits and what mechanisms govern the effect of those positive traits on mental illness (Gable & Haidt, 2005), which calls for global research efforts, especially in low- and mid-income countries.

Hope

Hope involves perceiving successful agency in relation to goals, influenced by the perceived availability of effective pathways to those goals (Snyder et al., 1991). The authors articulate hope as a dual-component model predicated on the interplay between agency and pathway thinking. The agency component encompasses the desire and determination to reach goals, while the pathway component involves the ability to devise successful plans to attain those goals (Snyder et al., 1991).

Hope was found to be associated with psychological well-being, whereas higher levels of hope were associated with better psychological well-being (Bai et al., 2017; Ong et al., 2006; Abdullah et al., 2018). Moreover, hope was found to be highly related to coping with stress (Yavas et al., 2013), negatively associated with anxiety and depression (Abdullah et al., 2018; Cheavens et al., 2006), and positively associated with practicing healthier behaviors (Berg et al., 2011). This positive effect of hope on well-being was suggested to be governed by fostering positive emotions, helping individuals set meaningful goals, and tailoring support to their unique needs (Leontopoulou, 2020). In fact, hope enhances well-being through three key mechanisms identified in Snyder's Hope Theory. First, it promotes positive emotions, which serve as a protective factor against mental distress. This increase in hope encourages individuals to adopt a proactive approach, strengthening their emotional resilience. Second, hope facilitates effective goal-setting, allowing individuals to establish meaningful and attainable goals. This sense of purpose fuels motivation and persistence, even when faced with challenges. Lastly, hope interventions work best when they are tailored to the individual. By considering personal characteristics and the specific context of the intervention, these approaches can resonate more deeply with a person's unique psychological makeup, thereby maximizing the benefits of hope on well-being (Snyder et al., 2002).

In Hartmann and colleagues (2018) study among an elderly sample, it was revealed that hope-related training significantly reduced depressive symptoms for up to 6 months. Furthermore, regarding clinical strategies for mental illness prevention, Laranjeira & Querido (2022) discussed how a "nurse's hope-inspiring competence" is crucial in promoting patients' mental health.

Self-esteem

Rosenberg (1965) provided a definition of self-esteem as an individual's overall subjective emotional assessment of their worth. The concept encompasses global and specific self-esteem, with the former defined as "the

individual's positive or negative attitude toward the self as a totality" (Rosenberg et al., 1965, p. 141), and the latter as "one's judgment of a particular facet of oneself" (Rosenberg et al., 1995, p. 143). Reduced self-esteem is linked to elevated scores in depressive mood (Bologini et al., 1996), whereas heightened self-esteem empowers individuals to manage their emotions and uphold their self-confidence (Rivas & Fernandez, 1995). Moreover, individuals with high self-esteem tend to adopt healthier behaviors, such as engaging in regular exercise, maintaining balanced dietary habits, and ensuring quality sleep (Huntsinger & Luecken, 2004).

The mechanisms by which self-esteem affects mental well-being are diverse. First, self-esteem helps individuals build stronger social networks and enhances resilience against stress, ultimately contributing to a sense of purpose and motivation (Orth & Robins, 2014). Also, high self-esteem can enhance performance in both social and academic situations by motivating individuals to embrace challenges. It is also associated with increased happiness and life satisfaction, helping people feel positive about themselves and manage difficulties more effectively. Furthermore, those with high self-esteem tend to make healthier lifestyle choices and cope with stress better, contributing to overall mental well-being (Baumeister et al., 2003).

Within the literature, the role of self-esteem as a preventive measure for mental illness and a tool for promoting mental health is evident in two research papers. Firstly, Moshki et al.'s (2012) study among Iranian college students revealed that three-month self-esteem-based interventions resulted in an increase in participants' self-esteem and an overall improvement in mental health. Secondly, Barry et al.'s (2013) review concluded that school-based interventions aimed at enhancing students' self-esteem successfully increased it and positively impacted their mental health.

Belongingness

Considering that belongingness is based on positive social relations and requires social intelligence, and social intelligence is one of the main indicators of positive psychology, then it should be labeled as a crucial concept of positive psychology (Seligman & Csikszentmihalyi, 2000). However, belongingness can be defined by the integration of an individual into society to the extent that they perceive themselves as an essential and integral part of the social system (Anant, 1966; Anant, 1967).

Social support and the sense of belongingness are closely intertwined (Cobb, 1976; McBeath et al., 2018), and a high level of social support, coupled with positive interactions, has been found to enhance the sense of belongingness (Lambert et al., 2013), thereby promoting individuals' well-being (Cockshaw et al., 2014; Ryff & Heidrich, 1997). In fact, belongingness is highly associated with mental health (Cockshaw et al., 2014; Vaz et al., 2014). Numerous studies have linked belongingness to general psychological distress, anxiety, and depression (Choenarom et al., 2005; Loukas et al., 2009; Moeller et al., 2020).

For instance, belongingness was suggested to affect mental health through the components of emotional intelligence. Findings indicate that emotional intelligence components—attention, clarity, and repair—are linked to better mental health outcomes by influencing feelings of inclusion and rejection. Notably, experiencing rejection is a stronger predictor of mental health issues than feeling included, suggesting that minimizing rejection may be more important for improving student mental health. Therefore, interventions focused on enhancing emotional intelligence and reducing experiences of rejection could effectively improve the mental well-being of college students (Moeller et al., 2020). In The study by Davis (2017), it was revealed that belongingness significantly impacts mental health among college students through several key mechanisms. A strong sense of belonging fosters feelings of acceptance and connection, which enhance emotion regulation and reduce isolation. It also increases perceived social support, allowing students to effectively cope with stress and academic challenges. This protective factor not only buffers against anxiety and depression but also promotes resilience, helping students recover from setbacks and maintain overall emotional well-being.

A recent study conducted by Stanley et al. (2019) suggested that the satisfaction of the need to belong can protect from developing post-traumatic stress disorder (PTSD) among firefighters. Greenberg et al. (2003) study

suggested that intervention policies can minimize the risk of social exclusion through the training of students on social and emotional intelligence and engagement in the community. Furthermore, a study that evaluated mental health interventions in schools in high-income countries revealed that efficient interventions aiming to promote students' mental health focused on social inclusion and social and emotional intelligence (Fazel et al., 2014).

Study Aims

College students are at significant risk of developing mental health problems, which can jeopardize their social and professional lives and have negative effects on the economy and community. Given the limited capacity of mental health services in Morocco, it is crucial to think proactively about effective prevention and treatment strategies. Based on the literature review findings, positive psychology appears to be a promising preventive tool. Therefore, this study aims to establish a foundational understanding of the effectiveness of positive psychology by evaluating the association between three important concepts—hope, self-esteem, and belongingness—and symptoms of mental distress among Moroccan college students.

Method

Study design

This cross-sectional study utilized a stratified cluster sampling strategy to collect primary data during the 2019-2020 academic year from eight institutions within Abdelmalek Essaâdi University, distributed across four cities. A specific sample size was randomly selected for each institution. Data collection occurred in classrooms and libraries, where participating students submitted their questionnaires and consent forms into two separate sealed boxes.

Participants and Procedure

The sampling process was intricately designed, incorporating three hierarchical levels. These levels comprised: 1) the city, 2) the type of institution, categorized as either open access (institutions with unlimited seats) or regulated access (institutions with limited seats), and 3) study level, which differentiated between undergraduate students in their first, second, and final years, along with graduate students.

Each institution became the focal point of a two-stage cluster, wherein the specific sample size was randomly determined based on the institution's student population. The calculation of total samples and subsamples from each institution employed the Epi-Info 7 software's Stat Calc application. Key parameters considered in this process included source population (100,828 subjects), maximum tolerated error margin fixed at 3%, stratified cluster sampling with three layers, and an expected parameter frequency to be estimated fixed at 50%.

The application of these parameters revealed that an estimated 1,060 students should be included in the study. To accommodate potential refusals and non-responses, this figure was subsequently increased by 10%, establishing a final sample size of n = 1,200 students.

The data collection required for this study took place during the academic year 2018-2019. Of 1,200 graduate and undergraduate students asked to participate in the study, only 1,150 questionnaires were retained based on questionnaire completion. The study included a sample of 703 females (61.1%) and 444 males (38.6%), with an average age of 20.00 years (SD = 2.6), ranging from 17 to 49 years. A majority of participants identified as single (88.8%), lived with their parents (70.2%), and did not have jobs (90.6%).

Ethical considerations

This research was carried out in accordance with the principles outlined in the Declaration of Helsinki (World Medical Association, 2001). Individuals were extended voluntary invitations to partake in the study, during which they were provided with an oral presentation elucidating the study's objectives. Participants possessed the autonomy to discontinue their involvement in the study at any point without the obligation to provide a

justification. Those who opted to engage in the study expressed their agreement by signing a comprehensive, written informed consent form.

Tools

The background questionnaire featured questions designed to gather participants' sociodemographic information, including marital status, as well as inquiries about unhealthy behaviors like smoking and health-related issues, such as recent use of depression medication. These questions were structured as closed-ended, offering either multiple-choice options or yes/no responses.

The **Trait Hope Scale (THS)**, also known as the Adult Dispositional Hope Scale, is designed to assess the dispositional hope trait. Comprising eight hope items and four distracters, respondents provide answers on an 8-point Likert scale, where ratings range from 1 (definitely false) to 8 (*definitely true*). This scale encompasses two subscales: the agency subscale, featuring items 2, 9, 10, and 12, and the pathway subscale, incorporating items 1, 4, 6, and 8. The total score is computed by summing the scores from these two subscales (Snyder et al., 1991). Developed with a two-dimensional structure, the THS has demonstrated acceptable internal consistency, ranging from α = .74 to α = .78 (Snyder et al., 1991). A score of 49 is considered typical (Snyder, 2002), with scores below 49 indicating a low level of trait hope and scores above 49 indicating a high level of trait hope.

The Arabic version of the THS used in this study was provided by Ben Ayad et al. (2024) and showed good internal consistency (α = .85) and temporal stability (ICC= .82, CI = .60, .92).

The **Rosenberg Self-Esteem Scale (RSES)** comprises ten items designed to assess self-perception by gauging both positive and negative feelings toward oneself. Respondents provide answers on a 4-point Likert scale, with responses ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) (Rosenberg, 1965). The total score is determined by summing the scores of all items, with the reversal of scores for specific items: 2, 5, 6, 8, and 9. A score below 30 indicates low self-esteem, while a score above 30 indicates high self-esteem (Chabrol et al., 2004; Guillon & Crocq, 2004).

The Arabic version of the RSES used in this study was provided by Ben Ayad et al. (2024) and showed an acceptable internal consistency (α = .70) and good temporal stability (ICC= .79, CI = .53, .90).

The **Social Connectedness and Social Assurance Scales (SCSAS)** are designed for the assessment of belongingness. Each segment of the scale comprises eight items, rated on a 6-point Likert scale ranging from 1 (*Strongly agree*) to 6 (*Strongly disagree*). The Social Connectedness Scale (SCS) encompasses three dimensions of belongingness: connectedness, with four items (1, 3, 5, and 6); affiliation, with three items (4, 7, and 8); and companionship, with one item (2). On the other hand, the Social Assurance Scale (SAS) consists of two aspects of belongingness: companionship, with four items (1, 4, 6, and 8); and affiliation, with four items (2, 3, 5, and 7). The overall summed score reflects the reported sense of belongingness (Lee & Robbins, 1995). Validation of the Arabic version of the SCSAS was conducted by Ben Ayad & Senhaji (2022) and demonstrated acceptable internal consistency (α = .77) and good temporal stability (ICC= .90, CI = .78, .95).

The **Brief Symptom Inventory (BSI)** serves as a self-reported tool to assess psychological symptoms, encompassing 53 items rated on a 4-point Likert scale, with responses ranging from 0 (*not at all*) to 4 (*extremely*). The BSI explores nine dimensions: Somatization, Obsessive-compulsive, Interpersonal sensitivity, Depression, Anxiety, Hostility, Paranoid ideation, and Psychoticism. To calculate the score for each dimension, one sums the scores of items representing that specific dimension and divides the result by the number of those items. Additionally, three other types of scores exist: The Global Severity Index, The Positive Symptom Distress, and The Positive Symptom Total, serving as indicators of the current psychological distress level (Derogatis & Melisaratos, 1983).

The Arabic adaptation of the BSI demonstrated substantial internal consistency, with values ranging from .70 to .83 for the nine dimensions (Abdallah, 1998). Furthermore, Zouini et al.'s (2019) investigation, which

involved a sample of Moroccan high school students, reported internal consistency for the nine BSI dimensions ranging from .71 to .85. In our study, Cronbach's alpha coefficients varied from .69 to .81.

Statistical Analyses

Since the data did not follow a normal distribution, non-parametric tests investigated the relationships between PST score of the BSI and demographic variables. Also, a linear regression test was performed to investigate the potential of THS, RSES, and SCSAS to predict changes in PST scores of the BSI. Linear regression results were interpreted after the meeting of the following four assumptions: linearity between the dependent variable and the predictor, no multicollinearity (tolerance > .1 and Variance Inflation Factor (VIF) < 5, homoscedasticity among residual errors, and independence of observations that were verified using Durbin-Watson test (d = 2 indicates no autocorrelation, d < 2 indicates a positive serial correlation, d > 2 indicates negative serial correlation).

All statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS) 21.0 (IBM) for Windows.

Results

Comparison of different groups' scoring on PST of the BSI

The comparison of PST scores revealed a significant difference between male participants and female participants (Z = -5.77, p < 10-4), between participants who reported consulting the hospital for a physical problem during the past month and those who did not (Z = -5.946, p < 10-4), between participants who reported to take medication for depression in the past month and those who did not (Z = -3.776, p < 10-4), between participants who reported to take medication for anxiety in the past month and those who did not (Z = -5.246, p < 10-4), and between participants reported to take medication for sleep troubles in the past month and those who did not (Z = -3.992, p < 10-4). In addition, a significant difference was found when comparing BSI-PST scores of participants who reported different living arrangements [$X^2(4) = 13.47$, p = .008] (Table 1).

THS, RSES, and SCSAS prediction of changes in PST scores

For males, the overall model explains 26.4% of PST score variation [$F(3, 398) = 48.66$, p < .05]. For females, the overall model explains 18.8% of the PST score variation [$F(3, 652) = 51.44$, p < .05]. For physically ill participants, the overall model explains 18.9% of PST score variation [$F(3, 179) = 14.901$, p < .05]. For participants taking drugs for depression, the overall model explains 32.2% of PST score variation [$F(3, 32) = 6.005$, p < .05]. For participants taking drugs for anxiety, the overall model explains 16.8% of PST score variation score [$F(3, 45) = 4.021$, p < .05]. Lastly, for participants living with another family member, the overall model explains 32.4% of PST score variation [$F(3, 65) = 11.363$, p < .05] (Table 2).

With a one-unit increase in the THS score, the PST score decreased significantly by .957 [$t(398)$ = -6.3, p < 10-4] for males, by .426 [$t(652)$ = -3.03, p < 10-3] for females, and by.968 [$t(65)$ = -2.587, p < 10-2] for participants living with another family member. In addition, with a one-unit increase in the RSES score, the PST score decreased significantly by 1.61 [$t(398)$ = -4.93, p < 10-4] for males, by 1.01 [$t(652)$ = -4.06, p < 10-4] for females, by .876 [$t(32)$ = -2.958, p < 10-3] for participants taking drugs for depression, and by 2.496 [$t(45)$ = -2.215, p < 10-2] for participants taking drugs for anxiety. Furthermore, with a one-unit increase in the SCSAS score, the PST score decreased significantly by .268 [$t(398)$ = -2.48, p < 10-2] for males, by .77 [$t(652)$ = -8.67, p < 10-4] for females, by 876 [$t(179)$ = -5.123, p < 10-4] for physically ill participants, by .749 [$t(45)$ = -2.098, p < 10-2] for participants taking drugs for anxiety, and by .942 [$t(65)$ = -4.04, p < 10-4] for participants living with another family member (Table 2).

Table 1. *Non-parametric tests of PST*

Groups		**Mean (n)**	***SD***	***Z***	***p***
Gender (a)	Male	64.12 (370)	31.33	-5.77	< 10-4
	Female	76.03 (603)	31.10		
Consulting the hospital for a physical problem (a)	Yes	85.45 (171)	33.38	-5.946	< 10-4
	No	68.52 (802)	30.54		
Taking medication of depression in the past month (a)	Yes	87.67 (30)	26.09	-3.776	< 10-4
	No	70.99 (943)	31.74		
Taking medication of anxiety in the past month (a)	Yes	93.20 (67)	30.41	-5.246	< 10-4
	No	69.90 (906)	31.22		
Taking medication of sleep in the past month (a)	Yes	93.06 (46)	32.88	-3.992	< 10-4
	No	70.43 (927)	31.28		
Living arrangements (b)	With parents	70.50 (690)	32.02	X^2 = 13.467	.008
	With mother alone*	76.83 (81)	30.9		
	With father alone	54.35 (14)	32.7		
	Alone	71.16 (128)	30.21		
	With another family member*	80.5 (60)	29.83		

**Note.* BSI: Brief Symptom inventory, PST: Positive symptom total. a: The comparison test was conducted with the Mann-Whitney test, b: The comparison test was conducted with the Kruskal-Wallis test. The *p*-value is significant at a 5% level.

Table 2. *Linear regression of BSI-PST for different groups*

Groups		**Estimation**	**Standard Error**	**Confidence interval at 95%**		***P***
				Lower limit	Upper limit	
Males	Hope	-.957	.152	-1.255	-.658	< 10-4
	Self-esteem	-1.61	.327	-2.255	-.970	< 10-4
	Belongingness	-.286	.108	-.481	-.056	.014
Females	Hope	-.426	.140	-.702	-.150	< 10-2
	Self-esteem	-1.01	.249	-1.497	-.520	< 10-4
	Belongingness	-.77	.089	-.946	-.597	< 10-4
Physically ill participants	Belongingness	-.876	.171	-1.213	-.539	< 10-4
Taking drugs for depression	Self-esteem	-3.186	1.077	-5.389	-.983	< 10-3
Taking drugs for anxiety	Self-esteem	-2.496	1.127	-4.771	-.221	.032
	Belongingness	-.749	.378	-1.558	-.0.30	.042
Living with another family member	Hope	-.968	.381	-1.749	-.224	.012
	Belongingness	-.942	.233	-1.408	-.476	< 10-4

**Note.* The *p*-value is significant at a 5% level

Discussion

In this study, we observed a significant gender disparity in PST scores, with female participants scoring notably higher than their male counterparts. This finding is consistent with numerous studies indicating that females commonly report higher levels of psychological distress than males (Boyd et al., 2015; Van Droogenbroeck et al., 2018; Wiklund et al., 2012). The observed gender gap in psychological distress can be partly attributed to biological differences between males and females (Parker & Brotchie, 2010). Nevertheless, variations in social activities and character traits related to distinct mental health outcomes also contribute to the observed differences between males and females (Rosenfield & Mouzon, 2013). However, the linear regression test conducted in this study unveiled that the three positive psychology indicators assessed—hope, self-esteem, and belongingness— exhibit significant negative associations with PST scores. This outcome was anticipated given the well-established associations between hope, self-esteem, belongingness, and mental health (Andonova, 2015; Arslan, 2021; Bai et al., 2017; Gallagher & Lopez, 2009; Ong et al., 2006). Furthermore, the results revealed that belongingness has a stronger association with mental distress symptoms among female participants. This result was also anticipated since females generally derive greater benefits from social support than men, with emotional support playing a particularly crucial role in their mental well-being (Fiori & Denckla, 2012; Johansen et al., 2021).

Moreover, this study findings suggest that experiencing a physical ailment is linked to an escalation in symptoms of psychological distress, aligning with findings from several studies that establish a notable correlation between physical illness and psychological distress (Ben Ayad et al., in press; de Rooij et al., 2021; Dwyer-Lindgren et al., 2017; Saifullah et al., 2020). The linear regression analysis yielded a noteworthy result, indicating that only belongingness was negatively associated with PST scores. Physical illness was found to be connected to a decline in the sense of belongingness, attributed to feelings of stigma and loneliness (Arslan, 2021; Gamwell et al., 2018). Additionally, stigma and loneliness have established associations with heightened symptoms of psychological distress (McIntyre et al., 2018; Menec et al., 2020). Consequently, we can infer that meeting the need for belongingness among some of the students grappling with physical illness diminishes feelings of loneliness and stigma, ultimately contributing to a decrease in psychological distress.

Furthermore, this study unveiled that participants who reported using medication for anxiety and depression in the past month exhibited a significantly higher PST score than those who did not. Indeed, both depression and anxiety are linked to other mental health challenges and an elevation in the level of psychological distress (Copeland et al., 2014; Gore et al., 2011), which aligns with the findings of this study. Following the linear regression test, we identified that only self-esteem was negatively associated with PST scores for individuals using depression medication. Additionally, we found that self-esteem and belongingness were negatively associated with PST scores for participants using anxiety medication. It is well-documented that depression and self-esteem share a strong association, with suggestions that low self-esteem can result from depression (Orth & Robins, 2014). Consequently, an increase in self-esteem among individuals experiencing depression may lead to a reduction in depressive symptoms and, consequently, a decrease in psychological distress. Moreover, anxiety has been found to be correlated with low self-esteem (Sowislo & Orth, 2013; Yektatalab & Ghanbari, 2020), while belongingness is negatively associated with mental illness (McMahon et al., 2008; Ross et al., 2010). Therefore, an elevation in self-esteem and a sense of belongingness can alleviate anxiety symptoms, contributing to a reduction in psychological distress symptoms.

Additionally, participants reporting the use of medication for sleep disturbance in the past month scored significantly higher on the PST than those who did not. This outcome suggests an association between sleep disturbance and an increase in symptoms of psychological distress, aligning with findings from various studies (Carli et al., 2011; Chu & Richdale, 2009; Kawada et al., 2011; Redeker et al., 2010).

Regarding living arrangements, we observed that participants who reported residing solely with their mothers and those living with a family member other than their parents scored significantly higher on the PST than those with different living arrangements. The separation from parents can impact feelings of parent-sibling attachment, consequently contributing to mental health problems (Agerup et al., 2015). Furthermore, living alone with a mother is linked to adverse behavioral and mental health outcomes, stemming from factors like the father's death or family breakdown (Amato, 2001; Amato & Keith, 1991). Additionally, a father's involvement in an adolescent's life significantly influences the adolescent's mental health (Amato, 2001; Cookston et al., 2007). Hence, the separation from both parents and living with only a mother is associated with an increase in participants' psychological distress. However, the linear regression test uncovered that two positive psychology indicators included in this study, namely hope and belongingness, significantly impact PST scores for participants who reported living with a family member other than their parents. It is established that social support and hope mediate the effect of parental attachment on life satisfaction (Chen et al., 2017; Jiang et al., 2013). Therefore, the elevation in hope and the sense of belongingness among participants living solely with their mothers or with a family member other than their parents can enhance life satisfaction, leading to a decrease in psychological distress symptoms (Bellis et al., 2012).

This study has significantly contributed to our understanding of mental health among college students in Morocco, the Arabic world, and beyond by identifying sociodemographic factors, such as gender, associated with increased psychological distress. The findings also provide strong statistical evidence of the inverse relationship between hope, self-esteem, belongingness, and mental distress, laying the groundwork for future research on positive psychology-based interventions. Therefore, it is recommended that Morocco develops preventive strategies focusing on mental health in college settings. Strengthening students' well-being and coping skills will help create resilient individuals, ultimately benefiting the workforce.

This study was subject to several limitations. First, the specific nature of the study population does not allow us to generalize the results to other Moroccan populations. Second, we needed more mental disorders screening tools to investigate the risk and protective factors. Third, the absence of other positive character trait scales limited the exploration of their effect on the psychological well-being of participants. Last, practical evidence about the efficacity of positive character traits is needed to support the statistical results of this study.

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ΕΜΠΕΙΡΙΚΗ ΕΡΓΑΣΙΑ | RESEARCH PAPER

Πρόβλεψη ψυχολογικής δυσφορίας: Μια μελέτη για τους προγνωστικούς ρόλους της ελπίδας, της αυτοεκτίμησης και του αίσθηματος του ανήκειν σε ένα Μαροκινό Πανεπιστήμιο

Hatim BEN AYAD[1], Adil NAJDI[2] and Meftaha SENHAJI[1]

1 UAE/Uo8FS, FS, Abdelmalek Essaâdi University, Tetouan, Morocco
2 Faculty of Medicine and Pharmacy, Abdelmalek Essaâdi University, Tetouan, Morocco

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ

Θετική Ψυχολογία
Ψυχική υγεία
Trait Hope Scale
Rosenberg Self-Esteem Scale
Social Connectedness and Social Assurance Scales
Ψυχική δυσφορία

ΣΤΟΙΧΕΙΑ ΕΠΙΚΟΙΝΩΝΙΑΣ

Ben Ayad Hatim
UAE/Uo8FS, FS, Abdelmalek Essaâdi University, Tetouan, Morocco
Department of Biology, Faculty of Sciences, BP 2121, Abdelmalek Essaâdi University, Tetouan, Morocco
Hatim.benayad@etu.uae.ac.ma

ΠΕΡΙΛΗΨΗ

Οι φοιτητές είναι ευάλωτοι σε προκλήσεις ψυχικής υγείας, γεγονός που ενισχύει την ανάγκη διερεύνησης των τρόπων πρόληψης. Η παρούσα έρευνα αξιολογεί τον προβλεπτικό ρόλο της θετικής ψυχολογίας στη μείωση των συμπτωμάτων ψυχικής δυσφορίας στους Μαροκινούς φοιτητές. Συνολικά, 1.150 συμμετέχοντες (μέση ηλικία 20.00, ΤΑ = 2.6· 703 γυναίκες, 444 άνδρες) συμπλήρωσαν ένα ερωτηματολόγιο, που περιλάμβανε τις αραβικές εκδόσεις των κλιμάκων: Trait Hope Scale, Rosenberg Self-Esteem Scale, Social Connectedness and Social Assurance Scales, και Brief Symptoms Inventory. Τα ευρήματα ανέδειξαν ότι το φύλο, η σωματική υγεία, η λήψη φαρμακευτικής αγωγής για την κατάθλιψη, το άγχος ή τις διαταραχές ύπνου, καθώς και οι συνθήκες διαβίωσης, συμβάλλουν καθοριστικά στην αύξηση των συμπτωμάτων ψυχικής δυσφορίας. Επιπλέον, οι δείκτες θετικής ψυχολογίας βρέθηκαν να είναι ισχυροί προβλεπτικοί παράγοντες της ψυχικής δυσφορίας, συμβάλλοντας στην αξιοσημείωτη μείωση των σχετικών συμπτωμάτων. Συνοψίζοντας, αυτή η μελέτη ανέδειξε πιθανούς παράγοντες κινδύνου που σχετίζονται με την αυξημένη ψυχική δυσφορία και υπογράμμισε την επίδραση της θετικής ψυχολογίας στη μείωση αυτών των συμπτωμάτων.

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