Educational Administration: Theory and Practice
2024, 30(5), 10670-10679
ISSN: 2148-2403
https://kuey.net/

Research Article

The Trait Emotional Intelligence As An Indicator For Mental Health Within Saudi Society: Assessment Study

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Citation: Abdullah khretan Alenezi et al. (2024 The Trait Emotional Intelligence As An Indicator For Mental Health Within Saudi Society: Assessment Study, *Educational Administration: Theory and Practice*, *30*(5), 10670-10679
Doi: 10.53555/kuey.v30i5.4800

ARTICLE INFO

ABSTRACT

This study aimed to verify the credibility of the Petrides' model for emotional intelligence as an indicator of mental health in Saudi Arabia. The study also aimed to determine the Convergent and Concurrent veracity of the scale structure considering the mental health index and listed mental disorders. The study sample comprised 170 students. The study Arabized the Trait Emotional Intelligence Scale by Petrides and Furnham (2001), the Inventory of Psychiatric Disorders by Asghari et al. (2008) and the Mental Health Index. It verified the validity and consistency of the tools. The scale has been highlighted as problematic in terms of the discriminant validity of the emotional intelligence scale. The findings determined that demographic variables, such as specialization, gender and age did not affect the trait model of emotional intelligence. The study also evaluated the internal validity of the model in reference to the mental health index and its external validity relative to the listed mental disorders.

Keyword: Emotional intelligence; Emotional self-efficacy; Discriminant validity

Introduction:

The inclusion of additional detail within the Mayer et al. (1995) model is required to improve its sensitivity as a tool to detect emotional intelligence. It currently considers the ability to monitor the feelings of oneself and others, and to distinguish between these by exploiting the available contextual emotional information as a guide (Petrides and psychology, 2010). As emotions can be artificial, identifiers can be misleading in some situations and contexts, and misperceptions about another person's emotional state can arise due to factors such as emotional development and distinct personality features, the current study concludes that the measure 'emotional intelligence' is in this sense a deficient concept. Criticisms of this concept include those made by (Brody, 2004), who claimed that emotional intelligence is a conceptual ability that can only be exhibited by those with a mature emotional state and self-awareness, as otherwise it can be tainted by ambiguity due to a failure to recognize one's distinct emotional nature. Moreover, in certain social situations, the ego needs to give way to emotional empathy for emotional intelligence to manifest.

Thorndike (1920) concept of social intelligence describes an individual's capacity to comprehend and effectively regulate their emotions in interpersonal relationships, while Gardner's notion of personal intelligence pertains to the aptitude to discern the intents and motivations that inform emotion, including key desires and fears (Petrides, 2011). Since emotion is a skill associated with stress and anxiety, trait anxiety and/or the conditions typified by an individual's personality may interfere with the process of emotional regulation (Petrides et al., 2016).

On the basis that people vary in their capacity to feel emotions, understanding of an emotional experience may be compromised by objectivity (Petrides et al., 2007b), or behavior could be influenced by a person's desire for social acceptance if he believes he is the object of an emotional evaluation. The decision-making process is also influenced by differences that affect the processing of emotional elements. This is because an individual's emotional experience may be perceived differently over time, depending on how mature their emotional competence is relative to their decision-making skills (Petrides et al., 2016; Sevdalis et al., 2007). In socially stressful situations, human judgments can become distorted, triggering negative emotions and subconscious

thoughts about one's ego. This can disrupt the decision-making process, regardless of the individual's emotional competence (Petrides and psychology, 2010). Nevertheless, according to Sevdalis et al. (2007), the trait approach does not consider emotional intelligence to be either a desirable construct or an adaptive capacity.

Emotional experiences affected by the positive and negative feelings nature:

Repetition is thought to have the greatest impact on the processing of an emotion. Furthermore, independent of its strength, an emotional experience is contingent upon both the frequency and intensity of the feeling (Moroń et al., 2021). Since emotion management develops gradually, the frequency of an emotional experience has a greater impact on emotional self-efficacy than the intensity of that emotion. When a portion of an emotional trigger becomes neutralized, the event is always conscious and one's comprehension of it thus deepens (Priolo et al., 2022). Additionally, repetition promotes the development of emotion regulation and control, as well as the activation of psychological capital involving uplifting and motivating emotions. Repetition of an emotional experience is expected to heighten a person's perception of it since emotional intelligence is a trait that indicates a person's perceptions and emotional disposition, and personal traits are key to attaining control over context. This increases the sensitivity of emotional intelligence to emotional cues in the environment (Petrides et al., 2007a; Priolo et al., 2022). According to Moroń et al. (2021), the frequency of positive emotions is a better indicator of life satisfaction than the intensity and severity of those emotions. They suggest positive emotions are more important than negative ones as a means of predicting an individual's subjective well-being.

The emotional regulation of emotional reactions is vital, due to the repetition of emotional experience, which informs emotional self-efficacy. Consequently, emotional regulation keeps a person from acting impulsively, especially when emotional arousal is high. In such situations, emotional suppression dominates over reevaluating emotional knowledge, resulting in a lack of emotional self-efficacy (Furnham et al., 2003; Picó-Pérez et al., 2017; Sevdalis et al., 2007). Furthermore, the concept of emotional intelligence extends beyond the conventional understanding of it as an emotional cognitive ability. This is because traditional understanding only addresses the sincerity of feelings, failing to consider the reality of emotional experiences that may indicate how emotional falsity is expressed, insecure adaptation, social approval, or other factors. Nor does it take into account differences in the emotional processing of information resulting from the influence of personality factors associated with the management of one's own emotions, or the essence of relationships that can result in managing the emotions of others, taking precedence over one's own emotions (Petrides and Furnham, 2003; Furnham et al., 2003).

Positive and negative indicators of the trait emotional intelligence curve:

The concept of emotional intelligence as a trait is described as emotional self-efficacy related to behavioral images of self-expressed emotional reactions, while the emotional capabilities of emotional intelligence can be simply defined as the self-perceived ability an individual has concerning the nature of his emotions, which is to partially tainted by bias (Mavroveli et al., 2007). The communication process is also influenced by emotional experience, since a negative emotional response might trigger communication anxiety, due to the pressure and dread associated with outcomes (Cherniss et al., 2006; Dewaele et al., 2008; Pauletto et al., 2021). One can benefit from emotional self-efficacy in the form of a degree of flexibility in terms of thinking, developing increased control over conduct by behaving with awareness and intention during mental meditation processes when anticipating specific emotions (Nadler et al., 2020; Moussa, 2021; Norboevich and Sciences, 2020). Trait-oriented emotional intelligence systems function via two different sorts of mechanisms, according to the dual-process paradigm (Schutte et al., 2010):

1- Experience-based Associative Process System. Repeating one's emotional experiences produces a form of emotional valence that enhances decision-making abilities. An individual might choose differently, but this might happen unconsciously beyond the purview of logical reasoning because of his emotional state and level of control over circumstances, which may be associated with his discontent with the circumstances and stimuli at hand (Schutte et al., 2002; Schutte et al., 2010).

2- System of Explicit Analytical Processes. Conscious processes are subject to a system that involves analyzing inputs and emotional processes. Thus, emotional information is often processed reciprocally, suppressing emotion and being dominated by the cognitive re-evaluation of that emotion (Schutte et al., 2010). Monitoring is also a common characteristic of this system. In the case of interpersonal connections, subjectivity serves as the primary motivator (Schutte et al., 2001).

Interpersonal communication also requires the development of perceived relationship quality and feelings of satisfaction, so that one can benefit from emotional self-efficacy (Smith et al., 2008). Emotional intelligence, thus, expresses adaptive ability in a context dominated by social competence, assertiveness, empathy, and optimism (Petrides and Furnham, 2001). Di Fabio and Kenny (2016) also pointed out that life satisfaction, well-being, and mental health encompass emotional and cognitive dimensions.

Numerous psychological studies (Pauletto et al., 2021; Zeidner et al., 2012) have demonstrated the correlation between high emotional intelligence traits and psychological well-being. This suggests emotional intelligence may use to modify mood disorders through clinical interventions undertaken as part of counseling and

therapeutic processes. This relationship (between high emotional intelligence traits and psychological well-being), is also significant because emotional intelligence is associated with a capacity to recognize, manage, and behave in a particular way in response to emotions, and well-being is associated with a positive outlook and a reasonable sense of self-worth in the context of a positive emotional state, as marked by mood regulation and improvement (Schutte et al., 2002).

The association between trait emotional intelligence and satisfaction in romantic relationships as a measure of psychological health was found to be 0.32 in a study by Malouff et al. (2014), which can be considered a rather low value. Mavroveli et al. (2007) found emotional intelligence as a trait was positively associated with coping patterns while being negatively associated with obsessive and depressive thoughts and frequency of somatic complaints among adolescents in Dutch society. Di Fabio and Kenny (2016) study, which conducted among students in an Italian secondary school, found that emotional intelligence as a trait was positively related to hedonic well-being and positive evaluations of life satisfaction. Meanwhile, Enns et al. (2018) reported a negative relationship between emotional intelligence traits and perceived stress, and adaptation proved to be a mediating variable associated with this relationship. This was also due to the psychological and social resources that result in a person embodying stress-related coping strategies to adapt to emotional contextual variables that stimulate emotional arousal, as Sanchez-Ruiz et al. (2021) confirmed.

A study by Gardner and Lambert (2019) reported negative correlations between emotional intelligence traits and the higher prevalence of more depressive symptoms in older adolescents. Resurrección et al. (2014) proved that a measure of trait emotional intelligence is a protective indicator for adolescents suffering from depressive symptoms. The results revealed by Martínez-Monteagudo et al. (2019) identified differences between trait levels of emotional intelligence to burnout, anxiety, depression, and stress, and teachers with low general emotional intelligence. Moreover, the group with high concern and low repair had higher scores for emotional exhaustion, anxiety, depression, and stress and lower scores for personal accomplishment. According to Fernandez-Berrocal et al. (2006), there is a negative correlation between anxiety sadness, and emotional intelligence, as determined by the Transmood Traits Scale. This is because emotional intelligence, which includes the capacity to control one's emotions and feel clearer, is associated with better adaptability. According to Salguero et al. (2012) research, emotional intelligence traits differed between the sexes, with females exhibiting more of these traits. Additionally, gender had an impact on the correlation between emotional intelligence and depression, with low emotional intelligence levels associated with higher rates of depression in men but not in women.

The Study Problem:

In Sánchez-Álvarez et al. (2016) study, the authors analyzed the relationship between emotional intelligence and the personal mental health of 8,520 individuals drawn from 25 sample studies. They reported positive relationships between the two variables and found that this relationship was the most apparent in studies that relied on combined feedback from a self-report curriculum (equating to 0.38). The Capacity Model for Self-Determination of Conscientious Intelligence was 0.32, and emotional intelligence tools reliant on performance reached 0.22. The relationship between emotional intelligence and the cognitive component of mental health was 0.35 compared to the emotional component at 0.29. In a study by PRADO-GASCO et al. (2018) this relationship was found to take on the role of intermediary influencer, especially about feelings in girls, and the components of emotional intelligence as a trait, namely emotional attention and clarity of emotions proved to be cognitive indicators of mental health. Schutte et al. (2002); (Moussa, 2021) attributed the link between both variables to the ability to understand and regulate feelings, as well as to relate them to emotional well-being, positive mood, and positive self-esteem, thereby enhancing individuals' positive situation.

According to Cherniss et al. (2006), examinations of the conflicting structures of conscientious intelligence have been criticized, specifically because emotional intelligence is not distinguished from personality and is cited as an indicator of personal success in the real world. (Johnson, 2015; Kanesan and Fauzan, 2019; Norboevich and Sciences, 2020) noted that the mixed model of conscientious intelligence combines emotional ability and traits, offering an alternative view positing that (Petrides and psychology, 2010; Petrides and Mavroveli, 2018) the origin of the trait of emotional intelligence is self-efficacy and that this essential condition is only realized in the availability of one's emotional valence. Therefore, mixed models to describe emotional intelligence are theoretically embedded in the attribute of emotional intelligence. One's mental health also requires the development of personal skills to respond to and cooperate with one's surroundings within a framework regulated by balanced and close relationships, as defined by Schutte et al. (2001). Hence, key elements of emotional intelligence can identify and examined as indicators of mental health among Saudi university students applying Petrides' feature-oriented paradigm. Thus, the following question in this research:

1- What are the elements of emotional intelligence and psychological health in a sample of Saudi university students?

2- What can be used as a predictor of the mental health index in a sample of Saudi university students?

Objectives of the study:

As stated above, the purpose of this study is to confirm the internal structure of Petrides' Emotional Intelligence Trait Curve Scale based on a sample of Saudi university students. The tool can subsequently

validated to determine the psychological assessment of the trait emotional intelligence curve as a discriminating indicator of mental health and psychological disorders across a non-clinical sample. The study also aims to verify the discriminant validity of the scale by identifying the similarities and differences that affect the latent features that comprise it.

Methodology:

1. **Design**:
The study implemented a cross-sectional design, using the correlational and descriptive analysis method to verify the factor structure of the scale and the discriminant, convergent, and divergent validity of the Saudi sample.

2. participants and sampling characteristics: The study sample consisted of 170 male and female students attending Saudi universities. The sample divided by type of college into 107 (62.9%) science colleges and 63 (37.1%) humanities colleges. There were 106 (62.4%) males and 64 (37.6%) females. The sample divided by age into 139 (81.8%) were from 18 to 22 years old, 14 (8.2%) were aged from 23 to 27 years old, 9 (5.3%) were aged from 28 to 33 years old, and 8 (4.7%) were over 33 years old.

3. Instruments:
3.a. trait Emotional Intelligence Scale: Petrides and Furnham (2001) define emotional intelligence as a set of emotional self-perceptions located at the lower levels of the personality hierarchy. The construct relates to people's self-perceptions of their emotional capabilities, and for this reason, has also been described as a trait of emotional self-efficacy. The scale comprises four factors: well-being, which includes items (5, 9, 12, 20, 24, 27), self-control (4, 7, 15, 9, 22, 30), and emotionality, which includes items (1, 2, 8, 13, 16, 17, 23, 28), and social vocabulary (6, 10, 11, 21, 25, 26). The time taken to respond to the scale is 25 minutes. The number of response options was reduced to five points on a Likert scale instead of seven. This five-point Likert scale included the responses: does not apply at all = 1, does not apply = 2, between and between = 0, applies sometimes = 3, applies completely = 4. The neutral response was coded "between and between", denoting that the respondent is unaware of his true feelings.
Confirmatory factor analysis implemented using the maximum likelihood method, which is the default method for the program. Moreover, a listwise method was used to address missing data, and standard saturations associated with the model were estimated. The fit indices were SRMR= .098, RMSEA= .068, X^2(df)= 524(293), P=.000, GFI= .907, TLI= .86, AGFI= .90, and X^2 was statistically significant, while the Tucker and Lewis index was non-identical. Saturations for the items on the four factors were as shown:

Table 1. Factor loadings of trait emotional intelligence indicators on CFA the three-factor.

Factor	Indicator	Stand. Loadings	SE	Z	P
WB	W5	.033	.113	.36	.717
	W9	.471	.134	5.05	.000
	W12	.021	.113	.225	.822
	W20	.525	.134	5.84	.000
	W24	.657	.137	7.30	.000
	W27	.565	.125	6.50	.000
SC	SC4	.101	.116	1.16	.247
	SC7	.089	.139	.99	.325
	SC15	.457	.127	5.45	.000
	SC19	.456	.127	5.37	.000
	SC22	.168	.130	1.88	.061
	SC30	.552	.134	6.48	.000
EM	EM1	.286	.149	2.30	.022
	EM2	.221	.131	2.34	.019
	EM8	.324	.133	3.12	.002
	EM13	.502	.171	4.31	.000
	EM16	.116	.133	1.12	.263
	EM17	.331	.102	3.51	.000
	EM23	.289	.177	3.02	.003
	EM28	.502	.166	4.54	.000
SO	SO6	.515	.111	6.13	.000
	SO10	.268	.107	3.02	.003
	SO11	.542	.128	6.51	.000
	SO21	.550	.134	6.42	.000
	SO25	.346	.120	3.99	.000
	SO26	.234	.134	2.65	.008

Notes. WB= Well-being, SC= Self-control, EM= Emotionality, SO= Sociability.

The loading for the items in the Well-being dimension was significant, except for items 5 and 12. The loading of these dimensions ranged from 0.033 to 0.657, and the loadings for the Self-control dimension were

statistically significant except for items 4 and 7. The items ranged from 0.089 to 0.522, and the loadings for the items in the Emotionality dimension were found to be statistically significant. Except for item 16, the loadings ranged from 0.116 to 0.502, and the loadings for the Sociality dimension ranged from 0.234 to 0.550, with none of the items in the dimension excluded.
Reliability calculated using the Omega coefficient, and its value for the scale items overall was 0.787. The Omega coefficients for Well-being dimensions ranged from 0.531, while the Self-control dimension reached 0.448, the Emotionality dimension 0.472, and the Sociability dimension 0.455.
B. Mental Disorders Inventory: The short version of Dass-21 formulated by Asghari et al. (2008) was used. The 21-item Depression, Anxiety, and Stress Scale. The scale items formulated to measure emotional disturbances in the second wave of the Corona pandemic comprised three factors. The first represented depression and referred to lack of motivation, low self-esteem, and speech and expression dysfunction, and is represented by the items (3, 5, 10, 13, 16, 17, 21); the second dimension represented anxiety and referred to the physical (physiological) and subjective symptoms of anxiety, the intensity of emotional reactions, and is represented by vocabulary (2, 4, 7, 9, 15, 19, 20); and the third dimension represented stress, assessing state of irritation, emotionality, and impulsiveness, patience, tension, and constant emotional stimulation as represented by the words in (1, 6, 8, 11, 12, 14, 18). The correction method was modified to create a five-point Likert scale rather than four-Likert points.

Validity and reliability: To study validity, an exploratory factor analysis performed using the maximum likelihood method to verify the three-factor structure of the scale, and conformity indicators were as follows:

Table 2. Indicators of fitting for the model of psychological disorders in the Saudi environment (n=170).

RMSEA	SRMR	TLI	CFI	df	X^2
0.075	0.053	0.901	0.914	184	358) 0.000(

The results led to a good match to the sample data in light of the indicators of good fit, and the vocabulary saturations for the three-factor structure loadings as shown in Table 3.

Table 3. Loading on the factors of the psychological disorders scale in the Saudi environment (n= 170).

Factor	Index	Loading	Standard error	Z value	Sig.
Depression	3	.57	.050	11.33	0.000
	5	.50	.059	8.32	0.000
	10	.66	.062	10.71	0.000
	13	.77	.060	12.55	0.000
	16	.60	.056	10.75	0.000
	17	.57	.061	9.32	0.000
	21	.66	.060	11.02	0.000
Anxiety	2	.49	.063	7.80	0.000
	4	.57	.062	9.26	0.000
	7	.57	.065	8.81	0.000
	9	.78	.070	11.14	0.000
	15	.64	.062	10.25	0.000
	19	.54	.074	7.30	0.000
	20	.74	.066	11.22	0.000
Stress	1	.67	.061	10.84	0.000
	6	.49	.063	7.70	0.000
	8	.80	.069	11.64	0.000
	11	.82	.059	13.92	0.000
	12	.81	.059	13.80	0.000
	14	.50	.074	6.71	0.000
	18	.61	.061	9.34	0.000

The items loading for the depression dimension ranged from 0.50 to 0.77, without excluding any associated items, while the anxiety dimension's loadings ranged from 0.49 to 0.78, without excluding any associated items, and the item loadings for the stress dimension ranged from 0.49 to 0.82. The reliability coefficient calculated using the Omega coefficient for the scale items overall, was 0.945, while reliability when using the Omega coefficient for the dimensions was 0.885, with anxiety 0.850 and stress 0.873.

3.2. Mental Health Index (MHI):

This is a tool typically used to survey individuals suffering from depression (Organization, 1998). The current scale is a processed form of the second version, which processed from negative to positive forms, to deliver a more homogeneous scale. The scale consists of five items as follows:
1. I have felt cheerful and in good spirits.
2. I have felt calm and relaxed.

3. I have felt active and vigorous.
4. I woke up feeling fresh and rested.

5. My daily life is filled with things that interest me.
The scale can be responded to using a six-point Likert scale: all the time (5), most of the time (4), more than half the time (3), less than half the time (2), some amount of the time (1), and any time (zero). The score obtained for each respondent will therefore range from zero to 25. Topp et al. (2015) then multiplied the resulting value by 4 to provide a percentage, where a score of 0 expresses the worst possible mental health, and a score of 100 represents the best mental health.

Validity and reliability: an exploratory factor analysis using the maximum likelihood method and the Promax oblique rotation method conducted to identify the factor structure. There is no determine factors to extract items on factor. A cut-off point chosen equal to 0.4 to accept the loading on the factor. The results reported a general factor explained as 65.3%, the latent root was 2.55, and the Kaiser-Meyer-Olkin test was 0.81. A confirmatory factor analysis performed using the Maximum likelihood (ML) method and goodness-of-fit indicators as follows:

Table 4. Indicators of fitting for the mental health model in the Saudi environment (n=170).

RMSEA	SRMR	TLI	CFI	df	X^2
0.000	0.012	1	1	3	(P=0.587) 1.93

Table 4. shows that aligned perfectly with the TLI, CFI, and RMSEA indicators. The SRMR indicators had a good fit that approached zero, and the Chi-square indicator was insignificant, resulting in a good fit. Correlations conducted between the error variances between items 5 and between 2 and 4 to modify the goodness of fit indices. Table 5 shows the item factor loadings of the general factor as shown in Table 5.

Table 5. Items loading on the factors of the mental health index in the Saudi environment (n= 170).

Indicators	Loading	Standard error	Z value	Sig.
1	0.91	0.080	11.37	0.000
2	0.85	0.083	10.23	0.000
3	0.99	0.084	11.77	0.000
4	0.80	0.100	8.07	0.000
5	0.81	0102	7.90	0.000

Item loadings ranged from 0.80 to 0.99 (all of which are high values), and all loadings were statistically significant, indicating the validity of the scale structure. Reliability computed by Cronbach's Alpha coefficient method, as the value for the scale items was 0.833, and the Omega coefficient was 0.838. The nil equality of the two-reliability coefficient confirmed the multidimensionality of trait emotional intelligence.

4. Procedures: The tools were prepared in electronic form after being prepared and presented on the Google Form website as the primary step in the electronic application. The tools also formulated in Arabic after being Arabized, and the content validity verified for the translated form by two colleagues in the Department of Curricula and Teaching the English Language and according to Cohen's Kappa coefficient to estimate validity. Agreement on translation. Informed consent checked before starting the application, and this procedure completed electronically by Google form platform after known their rights during the study had clarified.

5. Data analysis: The results analyzed after converting the raw data from XLSX format. The JAMOVI 2.3.26 program chooses to perform statistical analysis. Some descriptive indicators for the study variables estimated, and reliability performed using Cronbach's Alpha coefficient and McDonald's Omega coefficient. A correlation matrix estimated and showed the relationships between a trait emotional intelligence and the mental health index, the Mental Disorders Inventory scaled by DASS-21.
The discriminant validity index, i.e., the index describing the ratio of the relationship between different attributes (subscales) and similar attributes of the same construct, the Heterotrait- Monotrait ratio of correlations (HTMT), can be used as an indicator to determine the extent of differentiation between the underlying dimensions and evaluate their discriminant validity using confirmatory factor analysis. The strength of the relationships between latent variables is then estimated only when construct validity has been demonstrated (Henseler et al., 2015). The value of the HTMT indicator ranges between zero and one, and a value greater than 0.9 indicates poor discriminatory validity and the need to adjust the model, while values below 0.5 are acceptable.

Results:

Descriptive statistics and internal consistency indicators:
Table 6 shows the descriptive statistics of the trait emotional intelligence subscales to be determine the characterization on participants and the data distribution to be chosen the good tests to conduct the data analysis.

Table 6. Descriptive indicators of the dimensions of emotional intelligence traits (n=170).

	Well-being (WB)	Self-control (SC)	Emotionality (EM)	Sociability (SO)
Mean	14.1	12.4	14.1	13.2
Median	15	13	14	14
Std	4.50	4.56	4.79	4.75
Minimum	0	0	0	0
Maximum	21	23	26	24
Skewness	-1.08	-.40	-.57	-.60
Kurtosis	1.04	.17	1	.33

Descriptive statistics indicators analyzed to describe the sample in the Traits Emotional Intelligence Subscale, and the results were as shown:
Emotional and psychological well-being scores were close, which reflects that the sample characterized by similar scores for the dimensions of emotional self-efficacy (trait emotional intelligence), and the equality of individual differences, which is evident to a remarkably close extent to the standard deviation index on emotional intelligence traits. Psychological well-being has also negatively skewed, which indicates individual differences are high in this dimension.

Discriminant validity of the trait scale for emotional intelligence: The HTMT and AVE index computed to estimate discriminant validity in two ways, such that the values of the square root of the AVE index for each dimension were higher than the values of the correlation coefficients between the dimensions. According to the HTMT index, if the value falls below 0.5 it is acceptable, indicating high discriminative validity of the scale. However, if the value is 0.9 or greater, the measure has poor discriminative validity. The results were as shown:

Table 7. Indicators of discriminant validity of the Trait Scale for Emotional Intelligence.

	AVE	WB	SC	EM	SO
WB	.291	--			
SC	.161	.788	--		
EM	.136	.850	.861	--	
SO	.249	.897	1.031	.737	--

Notes. AVE= average variance estimation, WB= Well-being, SC= Self-control, EM= Emotionality, SO= Sociability.

Notably, an imbalance emerged in the relationships according to the HTMT index, as these ranged from 0.737 to 1.031, which is a moderate to large value. In addition, the relationship value of the HTMT index between self-control and social ability exceeded 0.9, which indicates a weak discriminatory validity of the scale in distinguishing traits, as these are synonymous traits. It did not distinguish between the samples based on these characteristics. The other relationships ranged from 0.5 to 0.9, which suggests they are moderate in terms of discriminant validity. It can also prove that the discriminatory validity of the scale is weak, as the value of the square root of the AVE indicator was lower than the values of the HTMT indicators in the correlation matrix. This may suggest the vocabulary used in the scale needed to rephrase when translated due to cultural variables, to effectively distinguish between emotional traits.

Differences between demographic variables in emotional intelligence traits:
Table 8. shows the differences in trait emotional intelligence subscales across demographic variables using the MMANOVA technique (Pillai's trace method). The demographic variables are major, gender, and age as an independent variable and the trait emotional intelligence subscales are dependent variables.

Table 8. The effect of demographic variables on the trait emotional intelligence subscale.

		Value	F-value	df1	df2	P
Major	Pillai's trace	.0358	1.143	5	154	.340
Gender	Pillai's trace	.0087	.271	5	154	.929
Age	Pillai's trace	.1360	1.482	15	468	.107

The multiple multivariate analysis of variance performed, considering that the variables for specialization, gender, and age group are nominal categorical independent variables, and the four variables that make up the emotional intelligence trait scale are dependent variables, for which the results were as shown in table 8.

Table 8 shows there is no differences between the sexes on a scale determining emotional intelligence traits, and this contradicts the study by Salguero et al. (2012). Logically, the specialization of students at the university level does not affect the traits of emotional intelligence, the mental health index, or indicators of psychological disorders. This is because the context of everyone's emotional experience depends on their traits, capacity for social adaptation, and psychological resilience. Age may be ineffective as a variable to consider for several reasons, including emotional maturity, personal refinement, the ability to control oneself by managing one's emotions, or mastering relationships in the context of social interaction, which is consistent with prior studies (Fernandez-Berrocal et al., 2006; Petrides and Furnham, 2003; Furnham et al., 2003).

Relationships between emotional intelligence traits, mental health, and psychological disorders are determined according to the convergent validity of the scale and the divergent validity of the emotional intelligence traits scale when calculating Pearson correlation coefficients between the dimensions of the emotional intelligence scale and the mental health index, to estimate convergent validity, while divergent validity was estimated by estimating the correlation coefficients between dimensions. That is the trait scale for emotional intelligence and dimensions of the mental disorders inventory. Table 9 shows the correlation matrix between the trait emotional intelligence subscales.

Table 9. Correlation matrix between the measure of trait emotional intelligence, and the list of psychological disorders.

Variables		trait emotional intelligence subscales			
		Well-being (WB)	Self-control (SC)	Emotionality (EM)	Sociability (SO)
psychological disorders	Stress	-.042	.070	-.161*	.032
	Depression	-.120	.013	-.189*	.012
	Anxiety	.014	.087	-.090	.096
Well-being		.255**	.138*	.123	.170*

The results of table 9 shows a positive correlation between psychological well-being as a dimension of emotional intelligence traits and the psychological health index. This means a weak perception between the emotional capacity present in psychological health and the emotional self-efficacy represented in the dimension of psychological well-being, and this may partly agree with studies (PRADO-GASCO et al., 2018; Sanchez-Ruiz et al., 2021; Zeidner et al., 2012). There is a convergence between the results of the study and those of Malouff et al. (2014). Satisfaction resulting from mental health is linked to emotional intelligence. This means that emotional intelligence is an adaptive process aimed at achieving psychological pleasure and a positive evaluation of life satisfaction. This justifies the lack of significance of the mental health index in its relationship to the emotionality dimension, and this result is logically justified in light of the study by Di Fabio and Kenny (2016).

This finding also justifies the negative relationship between the dimension of emotionality and perceived pressures, as the system of associative processes is an unconscious process that is not governed by rational thoughts and analyses (Schutte et al., 2010; Schutte et al., 2002). The negative emotional response leads to pressures and communication anxiety because of invisibility and feelings of frustration as a result of mental wandering as a result of loss. Emotional control in maladaptive situations is justified in several earlier studies (Dewaele et al., 2008; Mavroveli et al., 2007; Nadler et al., 2020; Schutte et al., 2010).

The lack of correlation between the dimension of self-control of emotions in the scale of emotional intelligence traits and the list of psychological disorders is justified, as in cases of emotional arousal, individual differences between individuals in emotional sensitivity can be undermined and judgment in decision-making distorted in cases of inability to self-control emotions as a result of ego inflation and unconscious thinking in stressful situations (Petrides et al., 2007a; Petrides et al., 2016; Sevdalis et al., 2007). Despite this, a positive correlation was found between self-control of emotion and the psychological health index, which may be justified by the fact that mental health conveys a degree of well-being as a result of using personal experience and perceived self-efficacy as a result of emotional experiences, the frequency of emotion, the intensity of the nervous stimulus, and degree of psychological resilience (Priolo et al., 2022; Moroń et al., 2021).

For the emotionality dimension and the psychological health index, there is no correlation. This is justified by the fact that new emotional situations do not affect an individual's decisions because of previously acquired psychological resilience. Rather they stimulate psychological capital and benefit from the individual's positive aspirations, directing him to adapt to the environmental context in light of personality traits, as is consistent with previous findings (Petrides et al., 2007b; Picó-Pérez et al., 2017; Priolo et al., 2022).

Discussion

This study aimed to verify the factorial structure of the Trait Emotional Intelligence Scale and was evaluated using confirmatory factor analysis. The structure suffered from some problems, which may be due to a variety of possible limitations, including falsification of responses to appear moderate, especially about emotional intelligence or social desirability; not perceiving expressions in the desired form; the respondent's perception of emotional competence has become troubling, as perceived emotional experiences may have been

unconscious; the personal experience of interacting with certain situations may have proven confrontational and maladaptive, possibly due to weak control over behavior, or reduced psychological flexibility or psychological resilience, as indicated elsewhere (Nadler et al., 2020; Schutte et al., 2010).

It emerged that moderate discriminatory validity affects all the dimensions on the scale, except the dimensions of self-control and social ability. The sample may have introduced misunderstandings relating to distinctiveness between them, or the view may mix regarding the interaction between the two factors, or it may be a consequence of both. Complementary to the other, the personal judgment of the sample members is inadequate and as such does not distinguish between the two dimensions.

The current study posits that the four dimensions that comprise emotional intelligence as a trait are not statistically significant relative to the anxiety dimension, which reflects the divergent validity of the scale. While the three dimensions of emotional intelligence traits (psychological well-being, self-control, and social ability) were associated with the mental health index, reflecting convergent validity, lack of demonstrable statistical significance between the mental health index and the emotionality dimension may be attributed to a lack of awareness of the emotional self-efficacy necessary to perceive interactions, make decisions, and adapt to situations and environmental variables. Or perhaps, the imbalance of emotional valence among individuals, as a result of the strangeness and intensity of emotional experiences, might explain the lack of relationship between the two variables, confirmed by Schutte et al. (2010).

The study was subject to many limitations, including the small sample size and the gender variable among the cohort of Saudi university students. This limitation affects the general validity of the study results and the identification of type I errors in the study results. The study sample was not fully representative of the university sector and its various colleges, as the sample limited by the certain colleges, such as Colleges of Social Sciences, College of Arts, etc.

Acknowledgment: This work was supported and funded by the Deanship of Scientific Research at Imam Mohammad ibn Saud Islamic University (IMSIU) (grant number IMSIU-RG23076).

Availability of data and matarials:

The datasets produced and analyzed in the present study are not publicly accessible to protect the privacy of the participants. However, interested parties may obtain access to the datasets by contacting the corresponding author and making a reasonable request.

Competing interests: The authors declare no competing interests.

Funding: The authors receive support from the Deanship of Scientific Research at Imam Mohammad ibn Saud Islamic University (IMSIU) (grant number IMSIU-RG23076).

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