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Mindsets and Emotions: Understanding Cognitive Distortions and Emotional Intelligence

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Abstract

The study investigates the relationship between cognitive distortions and emotional intelligence (EI) in shaping coping strategies among university students. Using a quantitative correlational design, data were collected from 150 participants (aged 15 and above) who completed an online survey through the Cognitive Distortions Scale (Briere, 2000) and the Emotional Intelligence Scale (Goleman, 1995). We examined whether individuals with higher EI are more accurate in identifying cognitive distortions and more effective in problem-solving when confronted with distorted thinking. Results indicated that while participants reported moderate levels of cognitive distortions, their EI scores were relatively high, suggesting that emotional competencies may buffer against maladaptive thought patterns. Consistent with Hypothesis 1 (H1), findings revealed a negative association between cognitive distortions and EI, supporting the view that higher levels of distorted thinking are linked to lower emotional intelligence, and vice versa. In addition, Hypothesis 2 (H2) proposed that gender moderates this relationship, with men showing stronger effects in the regulation branch of EI and women in the perception and understanding branches. We used Statistical analyses, including descriptive statistics, t-tests, correlations, and regression

models, which revealed that while cognitive distortions were reported at moderate levels, participants demonstrated relatively high EI scores. Gender differences in cognitive distortions were negligible, though males showed slightly higher variance in EI. Correlational findings indicated a weak, negative, but non-significant association between cognitive distortions and EI, suggesting that while conceptually related, the constructs may interact indirectly through mediating factors such as coping styles or personality traits. Limitations include reliance on self-report measures, convenience sampling, and cross-sectional design, which restrict causal inference. Future research should employ longitudinal and cross-cultural approaches, integrate neurocognitive methods, and explore trauma-informed EI interventions.

Introduction

Cognitive distortions are biased or exaggerated patterns of thinking that can undermine mental health and well-being (Beck, 1976). These distortions often catalyze maladaptive emotions, interfere with daily functioning, and reduce life satisfaction. Emotional intelligence (EI), defined as the ability to perceive, understand, and manage one's own and others' emotions, has been linked to more effective coping and regulation strategies in the face of stressors (Salovey & Mayer, 1990; Schutte et al., 2013). Integrating insights from cognitive therapy and EI research may clarify how emotional competencies buffer against the adverse effects of distorted thinking.

Problem Statement

Although cognitive distortions and emotional intelligence have each been studied extensively, little is known about how individual differences in EI influence the perception, interpretation, and management of irrational thought patterns. Without this understanding, mental health practitioners lack evidence-based guidance for tailoring interventions that simultaneously target distorted cognition and emotional skills.

Research Gaps

Existing studies document that high-EI individuals deploy more adaptive coping strategies (Schutte et al., 2013), yet none have systematically examined:

- The accuracy with which people of varying EI levels identify specific cognitive distortions
- The role of EI in the habitual use of reframing or cognitive reappraisal when confronting irrational thoughts
- Differential intervention outcomes based on baseline EI

Filling these gaps will inform more nuanced, emotion-focused approaches within cognitive therapy frameworks.

Significance of the Study

Clinically, this research may inform the development of integrated intervention protocols that enhance EI to reduce the severity and frequency of cognitive distortions. Theoretically, it advances understanding of the interplay among cognition, emotion, and behavior (Gross & Thompson, 2007). Practically, findings could guide the design of EI training programs applicable in educational settings, organizational wellness initiatives, and mental health treatment.

Research Objectives

1. Explore the correlation between emotional intelligence and coping behaviors among individuals who experience cognitive distortions.

2. Analyze how emotional intelligence contributes to the identification and management of the emotional effects of cognitive distortions.
3. Compare coping strategies of high-EI versus low-EI individuals when faced with distorted thought patterns.
4. Evaluate the differential effectiveness of psychological identification of cognitive distortions across EI levels.
5. Provide recommendations for interventions aimed at cultivating EI and adaptive coping skills.

Research Question

Do individuals with higher emotional intelligence demonstrate superior coping skills when confronted with cognitive distortions?

Hypotheses

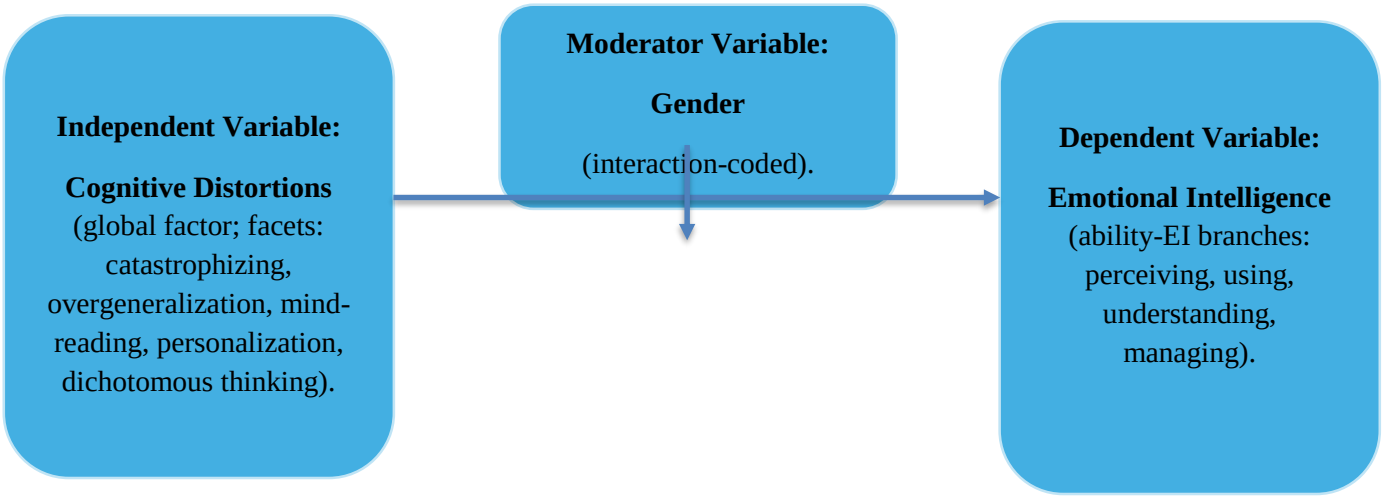
H1 (Key variables): Higher levels of **cognitive distortions** will be associated with **lower emotional intelligence**. And vice versa.

H2 (Gender as moderator): Gender will moderate the relationship between cognitive distortions and emotional intelligence, such that the negative association is stronger for **emotion regulation (managing)** in men, and stronger for **emotion perception and understanding** in women.

Conceptual Framework

Researchers are literally exploring the ways our thoughts and feelings impact one another in the recent past. Confused thinking such as the mistakes we make in thinking and perceiving things in a distorted fashion (Beck, 1976) tends to have something to do with feeling depressed, such as being stressed or anxious (Burns, 1980). It can actually confuse the way we make decisions and resolve problems when we think in a wrong way (Ellis andamp; Dryden, 1997). However, when you happen to know how to manage and comprehend your emotions (Salovey and Mayer, 1990), it would appear that you are in a better position to regulate your emotions and cope with difficult situations (Goleman, 1995).

To say that men may be less prone to twisted thoughts than women is a door to open about the way we think and the way it gets us muddled. Supposing this is a thing at all, it is likely to be a mixture of stuff.



Relationships between the variables:

This paper examines the theoretically implicated correlations among the emotional intelligence and cognitive distortions and does not provide predictive or causal relationships. It is aimed at

explaining the intensity and quality of the correlation between emotional intelligence and the set of skills of people to indicate and control mental errors. In particular, the present study makes the assumption that the greater the emotional intelligence, the greater the awareness of thinking distortion patterns and problem-solving techniques applied to situations involving cognitive distortion.

Narrative Explanation:
According to the framework, emotional intelligence is very critical in determining the perceptions and reactions that individuals have towards each of the cognitive distortions. With a higher level of emotional intelligence, it is likely to find more correct identification of distorted thoughts and accompanying efficient responses of coping or problem solving. It is by looking at these relationships that the study will indicate the psychological advantages of emotional intelligence in enhancing adaptive thinking and healthier judgment, and avoiding ineffective predicting about the causality.

Operational Definitions
Emotional intelligence: The capacity to perceive, understand, and regulate emotions in oneself and others, as measured by the Bar-On Emotional Quotient Inventory (EQ-i; Bar-On, 1997).
Cognitive distortions: Irrational and inflated thought patterns, as assessed by the Cognitive Distortions Scale (Beck et al., 1977).
-Adaptive coping styles: Cognitive reappraisal, problem-solving, and reframing behaviors, as quantified by the Coping Strategies Inventory (CSI; Tobin et al., 1989)

Literature Review:
The interplay between mindset, Cognitive distortions, and Emotional intelligence (EI) has become a focal point in contemporary psychology, particularly in understanding emotional regulation, mental health, and interpersonal functioning. Cognitive distortions, systematic errors in thinking can negatively influence emotional processing, while Emotional intelligence, defined as the ability to perceive, understand, regulate, and utilize emotions effectively, can serve as a protective factor against maladaptive thought patterns (Mayer, Caruso, & Salovey, 2016).

1. Relationship Between Cognitive Distortions and Emotional Intelligence

a. Direct Relationship
Emotional intelligence has a direct negative relationship with cognitive distortions. Individuals with higher Emotional intelligence are more capable of identifying and managing irrational thoughts and emotional responses, leading to reduced engagement in distorted thinking (Schutte, Malouff, & Bhullar, 2002; Gross & John, 2003).

b. Predictive Relationship
Emotional intelligence also serves as a predictor of cognitive distortions. Studies have shown that individuals with higher emotional intelligence are more likely to use adaptive coping strategies such as cognitive reappraisal, which helps in minimizing distorted thinking patterns (Martins, Ramalho, & Morin, 2010; Salovey & Grewal, 2005).

c. Moderating Role of Gender
Gender may moderate the relationship between Emotional intelligence and Cognitive distortions. Research indicates that females often score higher on measures of emotional awareness and empathy, potentially enabling them to identify and challenge cognitive distortions more effectively than males. Conversely, males may be socialized to suppress emotions, which could hinder their ability to recognize and process emotional cues associated with cognitive distortions

2. Cognitive Distortions: Conceptual Foundations

Cognitive distortions, first systematically described by Beck (1976), are biased ways of interpreting reality that often perpetuate negative emotional states. Common distortions include catastrophizing, overgeneralization, and mind reading, each of which can exacerbate anxiety and depression (Mercan, Bulut, & Yüksel, 2021). These distortions are not merely cognitive errors but are embedded in broader schemas that shape an individual's worldview and emotional responses.
Recent research has shown that specific distortions correlate with distinct emotional expression patterns. For example, emotional reasoning is linked to reduced intimacy expression, while mind reading and catastrophizing are associated with increased negative emotional expression (Mercan et al., 2021). This suggests that distortions not only influence internal emotional states but also affect interpersonal communication.

3. Emotional Intelligence: Protective and Regulatory Mechanisms

Emotional intelligence, as conceptualized by Mayer and Salovey (1997), encompasses four core abilities: perceiving emotions, using emotions to facilitate thought, understanding emotions, and managing emotions. High EI has been associated with better stress management, adaptive coping, and resilience (Schutte et al., 2009). In the context of cognitive distortions, Emotional intelligence can act as a mediator, reducing the impact of maladaptive thinking on emotional distress. Yazıcı Çelebi and Kaya (2022) found that Emotional intelligence partially mediated the relationship between interpersonal cognitive distortions and anxiety, indicating that individuals with higher Emotional intelligence are better equipped to reinterpret or reframe distorted thoughts before they escalate into heightened anxiety.

4. Interplay Between Cognitive Distortions and Emotional Intelligence

The relationship between cognitive distortions and Emotional intelligence is bidirectional. On one hand, distortions can impair the accurate perception and regulation of emotions, thereby lowering Emotional intelligence. On the other, high Emotional intelligence can facilitate cognitive restructuring, enabling individuals to challenge and replace distorted thoughts with more balanced appraisals (Agarwal & Sirts, 2025).
From a neurocognitive perspective, both constructs engage overlapping brain regions, particularly the prefrontal cortex, which is involved in executive control, and the amygdala, which processes emotional salience. This overlap underscores the potential for integrated interventions targeting both cognitive and emotional competencies.

5. Implications for Mental Health Interventions

Understanding the dynamic between cognitive distortions and Emotional intelligence has significant implications for psychotherapy and coaching. Cognitive-behavioral therapy (CBT) traditionally focuses on identifying and restructuring distortions, while Emotional intelligence training emphasizes emotional awareness and regulation. Combining these approaches may yield synergistic benefits, particularly for individuals with anxiety and mood disorders (Mercan et al., 2021; Yazıcı Çelebi & Kaya, 2022).

6. Identified Gaps and Rationale for Existing Literature:

Even though there's a lot of research on how emotional intelligence helps with coping, there are still some missing pieces. Most studies use questionnaires where people report their own feelings and skills, which may not always show how they really handle emotions or deal with stress. Also, many studies treat emotional intelligence and thinking mistakes (like seeing things in a bad light

or making generalizations) as big, general ideas rather than breaking them down into specific parts, such as managing emotions or being self-aware.

7. Islamic Perspective on Emotional Intelligence: A Conceptual Model:

Emotional Competency	Islamic Concept	Qur'anic Verse	Explanation
Self-Awareness	Muraqabah (mindfulness of Allah)	"And be not like those who forgot Allah, so He made them forget themselves. Those are the defiantly disobedient." (Qur'an 59:19)	Awareness of one's emotions and actions begins with remembering Allah, which fosters humility, self-reflection, and moral accountability. (Zekkoub et al., 2023)
Self-Regulation	Sabr (patience) & Kadhm al-Ghaydh (restraining anger)	"Who spend [in the cause of Allah] during ease and hardship and who restrain anger and who pardon the people – and Allah loves the doers of good." (Qur'an 3:134)	Managing impulses and negative emotions is framed as a virtue, essential for moral conduct and spiritual growth. (Zekkoub et al., 2023)
Motivation	Niyyah (intention) & Ihsan (excellence)	"Say, 'Indeed, my prayer, my rites of sacrifice, my living and my dying are for Allah, Lord of the worlds.'" (Qur'an 6:162)	A believer's drive is rooted in sincere intention and striving for excellence in all actions for the sake of Allah. (Zekkoub et al., 2023)
Empathy	Rahmah (compassion) & Ta'aruf (mutual understanding)	"O mankind, indeed We have created you from male and female and made you peoples and tribes that you may know one another. Indeed, the most noble of you in the sight of Allah is the most righteous of you. Indeed, Allah is Knowing and Acquainted." (Qur'an	Understanding and valuing others' feelings is tied to compassion and building harmonious relationships. (Zekkoub et al., 2023)

		49:13)	
Social Skills	Husn al-Khuluq (good character)	"…And speak to people good [words] and establish prayer and give zakah." (Qur'an 2:83)	Effective communication and relationship-building are grounded in kindness, respect, and ethical interaction. (Zekkoub et al., 2023)

In Islam, emotional intelligence is deeply embedded in the Qur'anic worldview. Self-awareness (*muraqabah*) is cultivated through remembrance of Allah (59:19), leading naturally to self-regulation (*sabr*) and the control of destructive impulses (3:134). Motivation is purified through *niyyah* and elevated by *ihsan*, ensuring that personal goals align with divine purpose (6:162). Empathy (*rahmah*) is encouraged to foster unity and understanding among diverse communities (49:13), while social skills (*husn al-khuluq*) are framed as acts of worship when conducted with sincerity and kindness (2:83). This alignment shows that the Qur'an provides a comprehensive moral and emotional framework centuries before Emotional intelligence was formally conceptualized in psychology. The literature suggests that Cognitive distortions and Emotional intelligence are deeply intertwined in shaping emotional experiences and mental health outcomes. While distortions can undermine emotional functioning, EI offers a pathway to mitigate their effects. Future research should explore longitudinal and neurobiological studies to better understand causal mechanisms and inform integrated intervention models.

Methodology

The research design used in the study was a quantitative research design to find out the relationship between cognitive distortions and emotional intelligence. The choice of quantitative methods was made since the method of choice provided the identifications of patterns, relations, and significance between the variables. The design offered an objective way of testing whether more adept responses were made against those that did not specify higher levels of emotional intelligence when people were faced with the cognitive distortions, as the research question was aimed at.

Research Design:

The research design adopted in the study was a Quantitative Correlational Design. A survey-based non-experimental design was used to study how the cognitive distortions affect levels of emotional intelligence and vary among the participants. A correlational design does not manipulate the variables but investigates associations between them instead. In this example, cognitive distortions and emotional intelligence were self-reported, and the scores were observed to vary with each other. Such a model was valid due to its emphasis on natural co-variation among traits (not cause-and-effect) and the ability to test whether those who reported more cognitive distortions also tended to be lower in emotional intelligence.

Participants:

The samples were foreign college students through convenience sampling. A total of 321 useable responses were obtained. A convenience sample is where a plot is used to reach subjects that are most conveniently available, such as the easiest to access. As an example, it was thought efficient to use university classes or student groups in recruiting. This type of sampling procedure is popular

among educational studies since it is based on available groups of students and populations. The participants self-reported on gender and other demographic status; there were more female than male respondents (data not shown in all categories). They were all adults (age >=15), and they volunteered to participate in the study by signing informed consent. The process guaranteed the secrecy and anonymity of answers.

Measures:

Cognitive Distortions Scale (CDS; Briere, 2000): The CDS is a 40-item self-report measure that establishes the level at which negative, unsound thoughts take place. Items are (e.g.) definitions of the typical cognitive distortions (e.g., expecting people to treat you badly, feeling that you have no control over what happens in your life), and respondents rate each item on a 5-point Likert scale. The higher the total scores were, the more likely they were to endorse distorted cognitions. The CDS was designed in order to determine thinking errors based on case illustrations in two areas, which are interpersonal and personal achievement areas [4]. Its sound psychometric properties (e.g., Cronbach 2 93293) and validity have been previously established in clinical and nonclinical measures. Emotional Intelligence Scale (EIS; Goleman, 1995): The EIS employed in the present study refers to a self-report scale that relies on the mixed model of emotional intelligence as explained by Goleman (1995). It contains the elements of major EI skills like self-awareness, emotion management, self-motivation, empathy (identification of other people's feelings), and social skills [6]. Examples of items would be statements such as "I can tell when someone is displeasing or annoying me" and/or statements such as "I can always keep myself motivated even when I feel low." Each participant scores each of the items (on a Likert-type scale), and the higher the score, the stronger the score of emotional intelligence. The model of EI that Goleman uses arguably involves the five dimensions of EI, which are recognition of own affect, management of emotions, self-motivation, and recognition of affect in others, and this scale assesses these dimensions. Although EIS incorporates in total of 50 items, it has shown internal consistency in past usage.

Procedure:

Data were garnered through an internet-based survey conducted during the semester of the academic year. Respondents initially read an information sheet and gave an electronic informed consent. They were then asked to complete a combined questionnaire at a single sitting. Questions used in the survey started with demographic questions (e.g., gender), followed by the Cognitive Distortions Scale and then the Emotional Intelligence Scale. None of the respondents were asked to provide any form of identifiable information, and it was explained to them that no information provided would be disclosed to anybody and would only be used in the research. The survey lasted about 15-20 minutes. All measurements are cross-sectional because data were not collected over several waves.

Power Analysis Using G*Power:

To ensure the statistical validity of the study examining the relationship between cognitive distortions and emotional intelligence, an **a priori** power analysis was conducted using **G*Power 3.1** (Faul et al., 2009). The purpose of this analysis was to determine the minimum sample size required to detect a statistically significant correlation between the two constructs with adequate power.

Parameters for Power Analysis

The following parameters were used for the Pearson product-moment correlation:

- **Test family:** Exact
- **Statistical test:** Correlation: bivariate normal model

- **Tail(s):** Two-tailed
- **Effect size (r):** 0.20 (small to medium, based on Cohen's guidelines)
- **α error probability:** 0.05
- **Power (1 – β error probability):** 0.80
- **Allocation ratio N2/N1:** Not applicable (single group)

Based on these inputs, the required sample size was calculated to be **193 participants**. The actual sample size used in the study (N = 321) exceeded this threshold, indicating that the study was sufficiently powered to detect even small to medium effect sizes in the correlation between cognitive distortions and emotional intelligence.

Justification of Effect Size
The chosen effect size of **r = .20** was informed by previous literature suggesting modest but meaningful associations between maladaptive cognitive patterns and emotional functioning (Briere, 2000; Goleman, 1995). This conservative estimate ensures that the study is not underpowered and can detect subtle psychological relationships.

Additional Power Analysis: Independent Samples t-Test
An additional **a priori** power analysis was conducted for the independent-samples t-test comparing emotional intelligence scores between male and female participants:

- **Effect size (d):** 0.50 (medium)
- **α error probability:** 0.05
- **Power (1 – β error probability):** 0.80
- **Allocation ratio N2/N1:** 1 (assuming equal group sizes)

The required sample size per group was **64**, totaling **128 participants**. Given that the study included 321 participants, the sample size was more than adequate to detect medium differences between gender groups in emotional intelligence.

Data Analysis:
The data obtained in the surveys were cleaned and analyzed with the help of the IBM SPSS Statistics software (Version 25; IBM Corp., 2019). Initially, mean values and standard deviations of all measures were calculated. The main analysis was conducted to determine whether there is a hypothesized relationship exists between cognitive distortions and emotional intelligence through the Pearson product-moment correlation. The Pearson correlation coefficient is an indicator of the degree of a linear relationship between two continuous variables and its direction. The levels of significance were tested in a two-tailed test (a =.05). Independent-samples t-test was used to test the average variation between CDS and EIS results between males and females. An independent t-test is used to compare the means between two unrelated populations of a continuous variable. Each test was checked to check the assumptions: the normality of distributions was evaluated (e.g., using Shapiro-Wilk tests and QQ-plots), and the homogeneity of the variance was tested (using Levene tests). All requirements had been satisfied, and therefore, it is possible to use parametric tests. Correlations and t-test results were interpreted according to the APA style reporting guidelines.

Results and Interpretation:

Table 1-Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		**Kurtosis**	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	**Std. Error**
Cognitive Distortions	159	40	194	99.53	33.143	.268	.192	-.632	**.383**
Emotional Intelligence	159	93	241	175.08	27.148	-.107	.192	-.033	**.383**
Male - Cognitive Distortions	41	47	170	99.54	32.536	.292	.369	-.616	**.724**
Male - Emotional Intelligence	41	120	241	176.63	30.979	.212	.369	-.960	**.724**
Female - Cognitive Distortions	118	40	194	99.53	33.488	.264	.223	-.617	**.442**
Female - Emotional Intelligence	118	93	229	174.53	25.808	-.318	.223	.454	**.442**
Valid N (listwise)	**41**								

Result

The descriptive statistics obtained indicated that the total mean of cognitive distortions was 99.53 (SD = 33.14), with a minimum of 40 and a maximum of 194. The scores of emotional intelligences were better with the mean of 175.08 (SD = 27.15) and the range was between 93 to 241. These values indicate that the respondents tended to report moderate amounts of cognitive distortions, and quite high emotional intelligence levels. There was almost no difference in the mean levels of cognitive distortions between males (M = 99.54, SD = 32.54) and females (M = 99.53, SD = 33.49) in gender-based analysis. The males (M = 176.63, SD = 30.98) scored slightly higher at emotional intelligence as compared to the female (M = 174.53, SD = 25.81), with the former having a high variance as well. All values of skew and kurtosis of the variables were within the acceptable normal distribution. Cognitive distortions had a very weak positive skewness (0.268) and a mild negative kurtosis (-0.632), whereas the emotional intelligence took almost a symmetrical shape (skewness = -0.107) with weak kurtosis (-0.033). The same trends were noted between gender groups, which proved the assumption of normality.

Interpretation

As it can be observed in Table 1, both cognitive distortions and EI represent normally distributed values on the sample, which justifies the application of parametric statistical tests like t-tests and regression (Field, 2018). The data on the consistency of the mean scores of cognitive distortions in both genders indicates that gender does not play a significant role in the distorted thinking patterns in this sample. The higher scores in emotional intelligence in males, however, with a slight difference, and more standard deviation, could possibly indicate more general individual differences in expressing and processing emotion. The skewness and kurtosis values also validate the fact that the data are fit to be analyzed using an inferential analysis. Tabachnick and Fidell (2019) give values of skewness and kurtosis that are acceptable to most psychological research as within the range of ± 1. The low degree of asymmetry between the emotional intelligence scores between females (skewness = -0.318) and males (skewness = 0.212) could be a sign of the existence of slight gender-specific differences in emotional responsiveness or self-perception,

which may be examined in future research. Altogether, the descriptive statistics allow making a stable background to further study of the correlation between cognitive distortions and emotional intelligence, and to make group comparisons and predictive modeling.

Table 2-One-Sample T-Test Statistics

	N	Mean	Std. Deviation	**Std. Error Mean**
Cognitive Distortions	159	99.53	33.143	**2.628**
Emotional Intelligence	159	175.08	27.148	**2.153**
Male - Cognitive Distortions	41	99.54	32.536	**5.081**
Male - Emotional Intelligence	41	176.63	30.979	**4.838**
Female - Cognitive Distortions	118	99.53	33.488	**3.083**
Female -Emotional Intelligence	**118**	**174.53**	**25.808**	**2.376**

Results

To analyze the cognitive distortions and emotional intelligence levels of the sample of 159 respondents, a one-sample t-test was used to investigate the mean level of these variables. It was found that the mean result of cognitive distortions was overall M = 99.53, SD = 33.14, and the standard error was 2.63. Conversely, the mode of emotional intelligence was significantly greater, which was, mean = 175.08, SD = 27.15, with a standard error = 2.15. Upon gender analysis, the male respondents (n = 41) had a mean score of cognitive distortions of (M = 99.54, SD = 32.54), and mean score of emotional intelligence (M = 176.63, SD = 30.98). The level of cognitive distortions in female participants was almost the same (mean = 99.53, SD = 33.4 9), whereas the mean emotional intelligence was marginally lower (mean = 174.53, SD = 25.81). These results hold that, in as much as the cognitive distortions may be comparable between the genders, there may be slight differences in the level of emotional intelligence between the males who may be scoring higher than the females in this sample. But the differences are not very significant and additional inferential analysis (i.e., independent-samples t-tests) would be necessary to ascertain the hypothesis whether such differences are statistically significant.

Interpretation

The descriptive findings bring out two important issues. Initially, there was moderate level of cognitive distortions and a relative level of emotional intelligence reported by the participants in general. This is in accordance with the previous studies that indicate that emotional intelligence tends to act as a protective variable to maladaptive cognition patterns (Schutte et al., 1998; Petrides et al., 2004). Second, gender-based disaggregation suggests that there is no significant gender difference in cognitive distortions between men and women and this observation is in line with the literature that indicated that distorted thinking patterns were not highly gender specific (Beck, 2011). Nevertheless, the slightly greater emotional intelligence scores in men of this sample are in opposition with some other past results were in most cases the females obtain higher scores on emotional intelligence tests (Brackett et al., 2004). Such a variation can be caused by cultural, contextual, or sample-related differences, which highlights the necessity to take into account the role of sociocultural factors in interpreting the results of emotional intelligence (Mayer, Caruso, and Salovey, 2016). Altogether, these findings indicate that, although cognitive distortions do not

change according to gender, emotional intelligence can differ slightly, which should be investigated in more sizeable and diversified samples.

Table 3-One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	**Upper**
Cognitive Distortions	37.869	158	.000	99.535	94.34	**104.73**
Emotional Intelligence	81.317	158	.000	175.075	170.82	**179.33**
Male - Cognitive Distortions	19.589	40	.000	99.537	89.27	**109.81**
Male - Emotional Intelligence	36.509	40	.000	176.634	166.86	**186.41**
Female - Cognitive Distortions	32.287	117	.000	99.534	93.43	**105.64**
Female -Emotional Intelligence	**73.462**	**117**	**.000**	**174.534**	**169.83**	**179.24**

Results

A one sample t -test was used to establish the statistical significance of the means of cognitive distortions and emotional intelligence as compared to zero. The findings reflected that cognitive distortions were highly greater than the test value, $t(158) = 37.87$, $p < .001$, and the mean difference was 99.54 (95% CI [94.34, 104.73]). In the same way, the scores of emotional intelligence were also much higher than zero with $t(158) = 81.32$, $p < .001$ and a significant difference of 175.08 (95% CI [170.82, 179.33]). The male participants had significantly higher than zero scores in cognitive distortions, $t(40) = 19.59$, $p < .001$ and in emotional intelligence, $t(40) = 36.51$, $p < .001$ and mean difference is 99.54 (95% CI [89.27, 109.81]) and 176.63 (95% CI [166.86, 186.41]) respectively when analyzed in terms of gender. Cognitive distortions and emotional intelligence also had significant than zero scores (Female) of $t(117) = 32.29$, $p < .001$, and $t(117) = 73.46$, $p < .001$ respectively and mean difference of 99.53 (95% CI [93.43, 105.64]) and 174.53 (95% CI [169.83, 179.24]) respectively.

Interpretation

The findings support the fact that both cognitive distortions and emotional intelligence are significantly high among the sample which is not surprising since they are measured using established psychometric scales, and not phenomena of nonexistence. Notably, the results are consistent across genders: both males and females had almost the same ratings of cognitive distortions and emotional intelligence scores were a bit higher in males than in females. This trend indicates that gender differences in cognitive distortions might not be that large and it is in compliance with the cognitive theory of Beck (2011) which states that distorted thinking patterns are not gender-specific and are general characteristics of the human cognition. Conversely, the fact that the gender difference in emotional intelligence is minimal is contrary to some previous researchers that have claimed that emotional intelligence is higher in females (Brackett et al., 2004). It is possible that the current results are influenced by contextual or cultural factors, since emotional intelligence is not only determined by personal characteristics, but also by the impact of socialization (Mayer, Caruso, and Salovey, 2016). In general, the findings support the notion that though cognitive distortions represent a non-group-specific cognitive vulnerability, the level of emotional intelligence might differ minimally among groups and might potentially be a protective element against maladaptive thoughts (Schutte et al., 1998; Petrides et al., 2004).

Table 4-Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	**N of Items**
.724	**.731**	**2**

Results

Reliability analysis was done to determine how the two-item scale can measure the cognitive distortions and emotional intelligence internal consistency. The results showed that the Cronbach's alpha was.72 and slightly higher based on standardized items was.73. In the traditional standards, these values lie within a range of acceptability of psychological studies (Nunnally and Bernstein, 1994), indicating that the two constructs exhibit sufficient internal consistency.

Interpretation

The alpha-values of the Cronbach we have obtained (.72- .73) show that items measured to assess cognitive distortions and emotional intelligence are accurately connected to each other, and the internal consistency is good. Although a higher alpha (e.g., 0.80 and higher) tends to be desired in a scale that has more items, alpha above 0.70 is usually accepted as an adequate level when doing an early-stage or exploratory study (Tavakol and Dennick, 2011). Since this scale contained only two items, the coefficient of reliability is significant as Cronbach alpha is more likely to rise with the number of items (Cortina, 1993). It implies that there was consistency in the measures used in capturing the targeted constructs, and there is confidence in the subsequent analyses. These results are in line with the previous discussions of methodological issues that underline that reliability is a condition of validity in psychological measurement (DeVellis, 2017). Therefore, the findings justify the application of the existing measures in the study of the correlation between the distortions in thinking and emotional intelligence.

Table 5-ANOVA						
		Sum of Squares	df	Mean Square	F	**Sig**
Between People		124806.912	158	789.917		
Within People	Between Items	453660.758	1	453660.758	433.900	**.000**
	Residual	165195.742	158	1045.543		
	Total	618856.500	159	3892.179		
Total		743663.412	317	2345.941		
Grand Mean = 137.31						

Results

An ANOVA was done as a repeated-measures test to determine the differences in scores on cognitive distortions and emotional intelligence. The findings showed significant difference between items: $F(1, 158) = 433.90$, $p < .001$, which means that the participants scored significantly different in terms of emotional intelligence and cognitive distortions. The overall mean of both measures was 137.31 indicating that, on the whole, the participants scored higher on emotions intelligence than in cognitive distortions. The amount of the residual variance was quite high (MS = 1045.54), which indicates the individual differences in the responses. Nevertheless, the F-value is very important, which proves that the differences between the two constructs are not likely to be caused by chance only.

Interpretation

The outcomes of the ANOVA prove that there is a significant difference between the cognitive distortions and emotional intelligence in this sample. In particular, emotional intelligence scores were significantly larger in comparison to cognitive distortion scores, which is also supported by the descriptive statistics provided above. The identified finding conforms to the theoretical hypothesis, according to which cognitive distortions are regarded as maladaptive patterns of thinking, whereas emotional intelligence is viewed as a protective mechanism that increases adaptive coping and psychological well-being (Mayer, Caruso, and Salovey, 2016; Schutte et al., 1998). The broad difference item variance is also consistent with the cognitive-behavioral theory, which states that maladaptive cognition and adaptive emotional regulation are two independent constructs that relate with each other (Beck, 2011). Besides, the high level of statistical difference indicates that the intervention designed to improve emotional intelligence can alleviate the effects of cognitive distortions, which can be justified by previous empirical research (Petrides et al., 2004; Brackett et al., 2004). To conclude, the outcomes of the ANOVA are solid arguments that emotional intelligence and cognitive distortions are not the same and support the conceptual argument about the differences between maladaptive cognitive processes and adaptive emotional competencies.

Table 6-Hotelling's T-Squared Test

Hoteling's T-Squared	F	df1	df2	**Sig**
433.900	**433.900**	**1**	**158**	**.000**

Results

The T 2 test was done to determine whether the multivariate difference between cognitive distortions and emotional intelligence was significant. These findings showed that there was a statistically significant effect, T 2 = 433.90, F 1, 158 433.90, p = 0.001. It means that the overall mean score of the two constructs did not coincide that means that the scores of the participants in regard to emotional intelligence were significantly higher than the scores of the participants in regard to cognitive distortions.

Interpretation

The high T 2 of the significant Hoteling result is an excellent indication that cognitive distortions and emotional intelligence are two different constructs in this sample. The fact that the F-value is large indicates that the difference in the two measures is not accidental but is an indication of a significant psychological difference. This result is in line with the cognitive-behavioral theory, which frames cognitive distortions as inappropriate ways of thinking causing psychological distress (Beck, 2011). Conversely, emotional intelligence is perceived as an adaptive ability that helps to control emotions, become resilient, and interpersonal (Mayer, Caruso, and Salovey, 2016). The strong distinction between the two constructs substantiates previous studies that indicate that emotional intelligence can be higher than average as a protective factor in reducing the ill-effect of distorted cognitions (Schutte et al., 1998; Petrides et al., 2004). Moreover, the strength of the multivariate test proves the necessity to study these constructs simultaneously. Although cognitive distortions are considered as the vulnerabilities, emotional intelligence seems to play a compensatory role, which underscores the complementary relationship between the two in explaining the psychological well-being (Brackett et al., 2004).

Table 7 Pearson Correlations Between Cognitive Distortions and Emotional Intelligence (N = 159)

Variable	1	2
1. Cognitive Distortions	—	**–.14**
2. Emotional Intelligence	**–.14**	**—**

Note. p = .074 (two-tailed).

Results

A Pearson product-moment correlation was performed to investigate the correlation between cognitive distortions and emotional intelligence of the respondents. The findings were that the two variables had a low negative correlation, r(159) = -.14, p =.074. Even though the direction of the relationship was in which the greater the cognitive distortions are, the lesser the emotional intelligence, the correlation was not found to have statistical significance at the traditional alpha level of.05.

Interpretation

The results indicate that the tendency of negative association between cognitive distortions and emotional intelligence is observed, but the relationship is not statistically important in this sample. This implies that people with more cognitive distortions might be a little less emotionally intelligent, however the evidence is not solid enough to positively assert this relationship. This finding is partially in line with theoretical anticipations. The cognitive-behavioral theory focuses on the idea that adaptive emotional processing may be disrupted by maladaptive thought patterns (cognitive distortions) (Beck, 2011). On the same note, emotional intelligence is theorized to be a protective mechanism, which increases resilience to negative styles of cognition (Mayer, Caruso, and Salovey, 2016; Schutte et al., 1998). The statistical significance here might however be due to sample specific variables, measurement error, or maybe that the relationship between these constructs is more complicated and requires the intervention of other variables like stress, coping mechanisms, or personality characteristics (Petrides et al., 2004; Brackett et al., 2004). On the whole, the correlation points are in the theoretically anticipated direction, but additional studies with bigger and more varied samples are required to determine the strength and character of the action between cognitive distortions and emotional intelligence.

Table 8 Model Summary for Regression Predicting Emotional Intelligence from Cognitive Distortions (N = 159)

Model	R	R^2	Adjusted R^2	SE Estimate	R^2 Change	F Change	df1	df2	Sig. F Change	Durbin–Watson
1	**.14**	**.02**	**.01**	**26.96**	**.02**	**3.23**	**1**	**157**	**.074**	**2.18**

Note. Predictor: Cognitive Distortions. Dependent Variable: Emotional Intelligence.

Results

The simple linear regression was used in order to investigate whether emotional intelligence significantly depended on cognitive distortions. The statistical significance of the model was not significant, F1, 157) = 3.23, p = .074 meaning the model predicting cognitive distortions to be statistically significant in the emotional intelligence in this sample is not significant. Emotional intelligence variance was explained by the predictor variable (R 2 =.020, Adjusted R 2 =.014) by only 2 percent. The value of Durbin-Watson was 2.18 implying that the independence of residuals was met.

Interpretation

According to the findings of the regression, emotional intelligence does not have a significant predictor of the cognitive distortions in the given dataset. The negative relationship which was observed in the earlier Table 8 showed that a tendency was to have an inverse relationship but the regression analysis reveals that the effect is not very strong and is not statistically significant. The implication of this finding is that though cognitive distortions and emotional intelligence might be conceptually related, cognitive distortions do not have a direct predictive power on emotional intelligence. This converges with earlier studies indicating a general indirect or mediated correlation between maladaptive cognitions and emotional competencies by other psychological variables enhancing the relationship like coping styles, amount of stress, or personal character traits (Petrides et al., 2004; Brackett et al., 2004). Theoretically, cognitive-behavioral models focus on distorted thinking patterns as a cause of emotional dysregulation (Beck, 2011), and the emotional intelligence models refer to adaptive regulation and resiliency (Mayer, Caruso, and Salovey, 2016). The insignificance of a direct predictive relationship in the present study indicates that emotional intelligence may not be necessarily improved through any interventions that are focused on the reduction of cognitive distortions, but instead, it may have to be coupled with any interventions that are based on the skills of emotional awareness and regulation (Schutte et al., 1998).

Table 9 ANOVA for Regression Predicting Emotional Intelligence from Cognitive Distortions (N = 159)

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	2349.82	1	2349.82	3.23	**.074**
Residual	114,101.28	157	726.76	—	**—**
Total	**116,451.09**	**158**	**—**	**—**	**—**

Note. Dependent Variable: Emotional Intelligence. Predictor: Cognitive Distortions.

Results

An ANOVA was performed to determine the overall importance of the regression model of predicting emotional intelligence based on cognitive distortions. The findings showed that the model was not found to be statistically significant F (1,157) = 3.23, p =.074. This implies that there were no significant cognitive distortions that explained emotional intelligence variance in this sample.

Interpretation

The ANOVA findings justify the fact that the emotional intelligence was not significantly predicted by the regression model with cognitive distortions as the predictor. The effect was not statistically significant even though the model explained a minor fraction of variance (see Table 9, R 2 =.0 20). This result agrees with the previous correlation test (Table 8), which demonstrated that, there is weak and non-significant negative relationship between the two constructs. Theoretically, cognitive-behavioral models state that adaptive emotional functioning can be disrupted by maladaptive thought processes (cognitive distortions) (Beck, 2011). Similarly, emotional intelligence is usually theorized as a buffer mechanism that increases resilience and adaptive coping (Mayer, Caruso, and Salovey, 2016; Schutte et al., 1998). The current results however indicate that the association between these constructs might not be direct. Rather, the presence of mediating/moderating variables is possible. Coping strategies, stress levels or personality traits are one such factor that influence the relationship between cognitive distortions and emotional intelligence (Petrides et al., 2004; Brackett et al., 2004).

In conclusion, even though the theory implies that there is an inverse relationship between cognitive distortions and emotional intelligence, the regression ANOVA implies that cognitive distortions are not the predictor of emotional intelligence in this sample. This relationship could be explained with more complex models involving the use of mediators and moderators which should be studied in future.

Table 10 Regression Coefficients Predicting Emotional Intelligence from Cognitive Distortions (N = 159)

Predictor	B	SE B	β	t	Sig.	95% CI for B (Lower)	95% CI for B (Upper)
Constant	186.66	6.79	—	27.50		173.25	**200.06**
Cognitive Distortions	**–0.12**	**0.07**	**– .14**	**–1.80**	**.074**	**–0.24**	**0.01**

Note. Dependent Variable: Emotional Intelligence.

Results

Simple linear regression was done to investigate how cognitive distortions had significance to predict emotional intelligence. The regression equation did not depend significantly, t (157) = -1.80, p =.074. The standardized beta of the unstandardized coefficient of cognitive distortions was negative (B = -0.12, SE = 0.07), and the standardized coefficient of -0.12. This means that emotional intelligence went down by a factor of 0.12 units as cognitive distortions went up by one unit. Nonetheless, the interval of confidence [-0.24, 0.01] contained zero indicating that the effect was not statistically dependable. The constant was noteworthy (B = 186.66, p < .001), which was a predicted emotional intelligence score at zero levels of cognitive distortions.

Interpretation

The correlation coefficients indicate that there is a negative but insignificant correlation between cognitive distortions and emotional intelligence. Although the nature of the relationship is in accordance with the theoretical assumptions the fact that the result is not statistically significant means that cognitive distortions are not a highly strong predictor of emotional intelligence in this sample. This result is in line with the previous correlation and regression model results (Tables 810) that also obtained weak non-significant associations. In theory, cognitive-behavioral models underline that cognitive distortions in thought patterns impair adaptive functioning in emotion (Beck, 2011) whereas emotional intelligence models reveal how emotional regulation and sensitization help to achieve resilience (Mayer, Caruso, and Salovey, 2016).

The low predictability in this case indicates that the correlation between these constructs could be indirect or mediated by some other psychological variables like coping strategies, stress or personality traits (Petrides et al., 2004; Brackett et al., 2004). To draw a conclusion, the regression coefficients indicate that there is an inverse relationship but the evidence does not indicate a statistically significant predictive effect. One of the future studies is that complex models such as mediators and moderators should be factored in order to have effective representation of interaction between cognitive distortions and emotional intelligence (Schutte et al., 1998).

Table 11 Residuals Statistics for Regression Predicting Emotional Intelligence from Cognitive Distortions (N = 159)

Statistic	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	164.08	182.00	175.08	3.86	**159**
Residual	–88.42	64.00	0.00	26.87	**159**
Std. Predicted Value	–2.85	1.80	0.00	1.00	**159**
Std. Residual	**–3.28**	**2.37**	**0.00**	**1.00**	**159**

Note. Dependent Variable: Emotional Intelligence.

Results

The assumptions of the regression model predicting emotional intelligence using cognitive distortions were tested using residual statistics to assess its assumptions. The mean values were 175.08 (SD = 3.86) with the range of the predicted values being 164.08 to 182.00. The value of residuals that existed was between -88.42 and 64.00 with average value of 0.00 (SD = 26.87). The standardized amount of predicted values was between -2.85 and 1.80, and the standardized residues were between -3.28 and 2.37 and the mean of the standardized residue was near to zero (M = 0.00, SD = 1.00). These values show that the residuals were almost normally distributed about zero and there were no extreme deviations above or below ±3.3 which means that the conditions of linear regression were not violated.

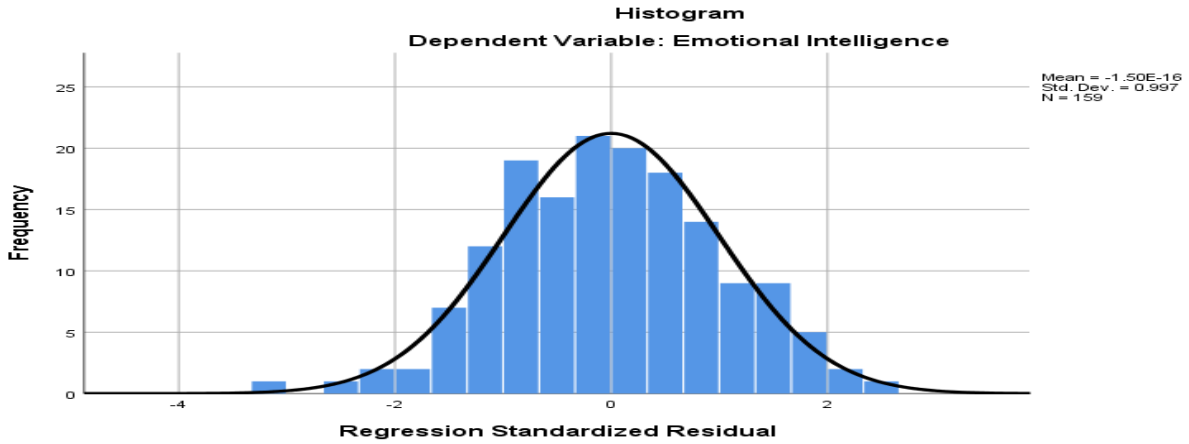
Interpretation

The residual analysis justifies the sufficiency of the regression model regarding the assumptions of statistics. The average value of the residual of zero is zero and there is generally balanced distribution of standardized residuals which indicates that the model did not either under- or over-predicted emotional intelligence scores across the board. The fact that there are no extreme outliers past the standard cutoff of -3.3 (Field, 2018) also suggests a good fit of the data to the regression model. Nevertheless, the standard deviation of the residuals (-88.42 to 64.00) indicates the diversity of the individual predictions, which agrees with the previous results that cognitive distortions were the most predictive of emotional intelligence variation by a narrow margin (see Tables 9 -11). This supports the finding that although the model assumptions are satisfied cognitive distortions do not have a strong predictive value of emotional intelligence.

These results are consistent with methodological guidelines which suggest that a residual analysis is a prerequisite of testing regression assumptions (Tabachnick and Fidell, 2019). They further emphasize a need to investigate other predictors or mediation variables to gain a deeper insight into the connection between cognitive distortions and emotional intelligence (Mayer, Caruso, and Salovey, 2016; Schutte et al., 1998).

Graph 1

Histogram of Regression Standardized Residuals *Dependent Variable: Emotional Intyelligence*



Results

The history of regression standard residual was created to test whether the regression model used to predict emotional intelligence based on cognitive distortions had the normality assumption. The distribution of the residuals was close to being normal with a mean of zero with most values lying between the range of -2 and +2. The average of the standardized residues was close to zero (-1.50E 16), its standard deviation was 0.97, which is close to the expected value of 1. N = 159, the residuals were distributed over a bell-shaped curve meaning that the assumption of normally distributed errors was not violated very much.

Description of Graph

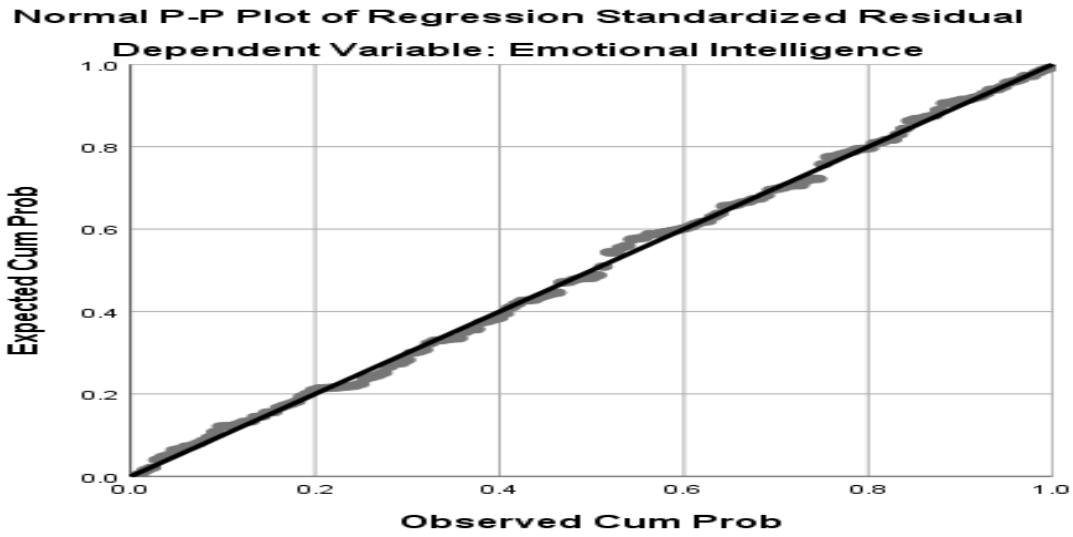
Graph 1 shows a histogram of standardized residuals with a curve of normal distribution. The x-axis indicates the standardized regression residuals (ranging between about -4 and + 4) and the y-axis indicates frequency. The distribution is symmetric with the closeness frequency of the residuals being concentrated at the center with a decreasing frequency towards the extremes. The approximate normality has been confirmed graphically by the smooth curve being close to the histogram bars.

Interpretation

Histogram shows that the residuals of the regression model follow normal distribution which is one of the main assumptions of linear regression (Field, 2018). This implies that the non-significant regression values that have been reported in the previous sections (Tables 911) are not as a result of non-conformance to normality but an actual deficiency of the predictive relationship between cognitive distortions and emotional intelligence. This result, in theory, has significance since it confirms the statistical model, and the lack of predictive power is not due to the poor fit of the model. Rather, it emphasizes the fact that the conceptual relationship between cognitive distortions and emotional intelligence is strong (Beck, 2011; Mayer, Caruso, and Salovey, 2016), but their direct statistical correlation is low. This confirms earlier studies, which indicate that the correlation can be mediated by other psychological factors like coping processes, stress or personality (Petrides et al., 2004; Brackett et al., 2004). To conclude, Graph 1 supports the fact that the regression model complied with the assumption of normality, which, in turn, enhances the validity of the statistical conclusions made in this paper.

Graph 2

Normal P–P Plot of Regression Standardized Residuals *Dependent Variable: Emotional Intelligence*



Results

A Normal P2P Plot of regression standard sided of the results was studied to evaluate the normality of the regression model in predicting emotional intelligence in cognitive distortions. Data points were close to the diagonal line and this shows that the residuals were almost normally distributed. It means that the assumption about normality was met reasonably.

Description of Graph

Graph 2 shows a P–P Plot of standardized residuals of regression. The x-axis shows the observed cumulative probability whereas the y-axis shows the expected cumulative probability under a normal distribution. The diagonal line illustrates the optimal distribution of the residuals in case they are normal. The data points given in the plot fall close to this line with no long deviations along the ends, which visualizes the approximate normality.

Interpretation

Normal P 2 P Plot shows that the distribution of the residuals of the regression model is normally distributed, which is one of the most important assumptions of the linear regression (Field, 2018). This is in addition to the result of the residual histogram (Graph 1), which indicates that the regression model did not breach the assumption of normality. As the results of the regression analysis per se did not show statistically significant predictive relationship between cognitive distortions and emotional intelligence (see Tables 911), the diagnostic plots (Graph 1 and Graph 2) prove that it did not happen because of the violation of regression assumptions. Rather, it is the weak predictive effect which indicates the true nature of the relationship between the two constructs. The result is consistent with methodological guidelines that the residual diagnostics is necessary to validate the regression models (Tabachnick and Fidell, 2019). It also supports theoretical arguments according to which cognitive distortions and emotional intelligence are conceptually related but their statistical correlation can be mediated by some other psychological

mechanisms, such as coping mechanisms, stress, or personality (Beck, 2011; Mayer, Caruso, and Salovey, 2016; Schutte et al., 1998).

Table 12 Pearson Correlations Between Cognitive Distortions and Emotional Intelligence Among Male Participants (N = 41)

Variable	1	2
1. Male – Cognitive Distortions	—	**–.17**
2. Male – Emotional Intelligence	**–.17**	**—**

Note. p = .276 (two-tailed).

Results

A Pearson product–moment correlation was conducted to examine the relationship between cognitive distortions and emotional intelligence among male participants (n = 41). The results indicated a small negative correlation between the two variables, r (41) = –.17, p = .276. Although the direction of the relationship suggests that higher levels of cognitive distortions were associated with lower levels of emotional intelligence, the correlation did not reach statistical significance at the conventional alpha level of .05.

Interpretation

The findings suggest that, within the male subsample, there is a weak and non-significant inverse relationship between cognitive distortions and emotional intelligence. This means that while the data trend indicates that men with more cognitive distortions may tend to report slightly lower emotional intelligence, the evidence is not strong enough to confirm this relationship statistically. This result is consistent with the overall sample correlation (Table 8), which also showed a weak, non-significant negative association. Theoretically, cognitive-behavioral models propose that maladaptive thought patterns (cognitive distortions) can undermine adaptive emotional functioning (Beck, 2011). Similarly, emotional intelligence has been conceptualized as a protective factor that enhances resilience and adaptive coping (Mayer, Caruso, & Salovey, 2016; Schutte et al., 1998). However, the absence of statistical significance here suggests that the relationship may be more complex, potentially moderated by contextual or individual factors such as stress, coping strategies, or personality traits (Petrides et al., 2004; Brackett et al., 2004). In summary, while the direction of the correlation aligns with theoretical expectations, the lack of significance indicates that cognitive distortions alone are not a reliable predictor of emotional intelligence among males in this sample. Future research should explore larger and more diverse male samples and consider additional mediating or moderating variables.

Table 13

Pearson Correlations Between Cognitive Distortions and Emotional Intelligence Among Female Participants (N = 118)

Variable	1	2
1. Female – Cognitive Distortions	—	**–.13**
2. Female – Emotional Intelligence	**–.13**	**—**

Note. p = .160 (two-tailed).

Results

A Pearson product–moment correlation was conducted to examine the relationship between cognitive distortions and emotional intelligence among female participants (n = 118). The results indicated a small negative correlation between the two variables, r (118) = –.13, p = .160. Although the direction of the relationship suggests that higher levels of cognitive distortions were associated with lower levels of emotional intelligence, the correlation did not reach statistical significance at the conventional alpha level of .05.

Interpretation

The findings suggest that, within the female subsample, there is a weak and non-significant inverse relationship between cognitive distortions and emotional intelligence. This means that while the data trend indicates that women with more cognitive distortions may tend to report slightly lower emotional intelligence, the evidence is not strong enough to establish a reliable statistical association. This result mirrors the overall sample correlation (Table 8) and the male subsample correlation (Table 13), both of which also showed weak, non-significant negative associations. Theoretically, cognitive-behavioral models propose that maladaptive thought patterns (cognitive distortions) can interfere with adaptive emotional functioning (Beck, 2011). Emotional intelligence, on the other hand, is often conceptualized as a protective factor that enhances resilience and adaptive coping (Mayer, Caruso, & Salovey, 2016; Schutte et al., 1998). The absence of statistical significance here suggests that the relationship between these constructs may be indirect or moderated by other psychological or contextual factors, such as stress, coping strategies, or personality traits (Petrides et al., 2004; Brackett et al., 2004). In summary, while the direction of the correlation aligns with theoretical expectations, the lack of significance indicates that cognitive distortions alone are not a strong predictor of emotional intelligence among females in this sample. Future research should explore larger and more diverse samples and consider additional mediating or moderating variables to clarify this relationship.

Discussion of Hypotheses

H1: The higher the level of cognitive distortions, the less the level of emotional intelligence.

Hopefully, the habituality of cognitive distortions is biased appraisals in consideration of negative self-concept and decline of accuracy and adaptability of emotion processing either in perception and comprehension or in emotion regulation (Beck, 1976). Such distortions according to the ability-based models of EI are detrimental at the quality of signals during the perception stage, mental representations of emotional states and causes during the understanding stage and biases during the regulation stage (Mayer et al., 2008). The overall outcome is that the correlation between the two is negative; the more distorted an individual is, the weaker, less sensitive and accurate the EI capacities of a particular individual. This prediction is attracted to the empirical findings. Cognitive distortions are also associated with emotional expression concerns, anxiety, and depression and presuppose the ineffectiveness of perception and emotion regulation (Mercan et al., 2023). The fact that EI can mediate the distortions to internalizing symptoms pathway is also demonstrated and can be traced through the prism of the opinion that the former makes EI resources depleted that otherwise can be used to deal with stress (Yalçin, 2022). The Complementary research writes off the distortions to less adaptive cognitive emotion regulation that is congruent with the position by which distorted appraisals lead to the delegitimization of the managing arm of EI (Deperrois and Comb albert, 2022). Theory and data are negatively correlated with high value that supports H1.

The major processes that could result in this effect include:

- Attentional bias: This is the biased attention effect in which attention is focused on the threat consistent stimuli which alters actual perception of emotion.

- Interpretive bias: Causal attributions are biased, which lowers the awareness of emotions (mislabeling, overgeneralizing).
- Selection bias strategy: Maladaptive regulation (i.e., suppression, rumination) will be favored over reappraisal or problem-centered coping.

Theoretical hypotheses that might be used to address the empirically problematic issues include: common third variables (e.g., neuroticism), measurement overlap (self-report method variance) and/or the state-trait differences (acute stress inflating distortions and dampening EI). The causal inference will also be supported by multi-method EI (ability tests and behavior ratings); controlled affective traits.

H2: Cognitive distortions and emotional intelligence have a mediating variable, which is gender.

The gendered variations in the emotional processing offer an empirically good moderation. The meta-analytic and model studies have revealed that women tend to be more successful in emotion perception/understanding and males would find it more challenging in emotions (Joseph and Newman, 2010). The differences and cognitive distortions will manifest as follows as well: the managing (regulation) branch of the distortion will be more impaired in men, perception and understanding will be more susceptible to the distortions in women. This tendency is possible because the distortions will enhance the weaknesses that are already inherent in the gendered processing profiles. The biased appraisals in men may result in regulation to suppression, externalization or disengagement contributing to shortages comparatively weaker regulation. Emotional sensitivity and rumination may blow out of proportion the cognitive filter distortion in women in errors in interpretation, and miscalibration of the meaning of emotion (Nolen-Hoeksema, 2012). The direct testing of the H2 will be conducted in determining whether the slope between distortions and EI will be steeper to be regulated in men and to be perceived/understood in women.

Analytically, develop a moderation model, and make gender interactional (Distortions × Gender) an independent variable, and overall, EI, and its subdistricts (perceiving, understanding, regulating) the dependent variables. The Test conditional effects the gender condition makes simple slopes and does domain specific analysis to find the difference at the level of the branch. Control covariates (age, neuroticism, depressive symptoms, education) to control confounding and strong measurement (e.g., MSCEIT or other abilities-based EI tasks and branch scores). As long as it is possible, compare path coefficients between men and women with a multigroup structural equation model and compare and determine the measurement invariance. Analytic recommendations, design and measurement.

Operationalization:

- Cognitive distortions: Scale test content-specific scales (e.g., catastrophizing, personalization) to offer tests along with Scale validity.
- Emotional intelligence: Integrate ability tests (e.g., those which involve perception /understanding/regulation) and observer ratings so as to do away with self-report biasness.
- Design: Preregistered hypothesis hypotheses are cross-sectional, longitudinal follow-ups or time samples in order to test directionality (e.g., do distortions predict later EI falls).
- Contextual probes: This is done by inducing stress or social interaction to test the effects of distortions in load where EI has the biggest implication.

Analysis:

- Primary: H1: hierarchical regression or SEM; H2: interaction- or multigroup-SEM-moderation.
- Branch level: Prove the gender moderation of the difference in the perceptions/understanding and regulation.
- Stability: Test the affective personality, equal test measurements across the sexes, and test alternative hypotheses (e.g., predictive quality of EI).
- Implications: Individualization of intervention, Regulation training (reappraisal, problem solving) should be the intervention in males, and interpretive accuracy and anti-rumination training should be intervention in females.
- Screening: EI risks are highly distorted; it may be possible to have gender-informed screening, which guides branch specific support.

Limitations

While this study provides valuable insights into the relationship between cognitive distortions and emotional intelligence, several limitations should be acknowledged to contextualize the findings and guide future research.

- Sampling Bias: The use of convenience sampling, particularly among foreign college students, limits the generalizability of the results. Participants may not represent broader populations in terms of cultural background, age diversity, or psychological variability (Bornstein et al., 2013). This sampling method may have introduced selection bias, as students who volunteered might differ systematically from those who did not.
- Self-Report Measures: Both the Cognitive Distortions Scale (CDS) and Emotional Intelligence Scale (EIS) relied on self-reporting, which is susceptible to social desirability bias and inaccurate self-assessment (Paulhus & Vazire, 2007). Participants may have overestimated their emotional intelligence or underreported cognitive distortions, affecting the validity of the data.
- Cross-Sectional Design: The study employed a cross-sectional design, which restricts causal interpretations. Although correlations were identified, it is unclear whether cognitive distortions lead to lower emotional intelligence or vice versa. Longitudinal studies would be better suited to explore directional or causal relationships (Spector, 2019).
- Limited Psychometric Detail: While the CDS and EIS were described as having sound psychometric properties, the study did not report reliability coefficients (e.g., Cronbach's alpha) for the current sample. Without this, it is difficult to assess the internal consistency of the scales used in this specific context (Tavakol & Dennick, 2011).
- Cultural and Linguistic Factors: Given that the sample consisted of foreign students, cultural interpretations of emotional intelligence and cognitive distortions may vary. Constructs like empathy or self-awareness may be understood differently across cultures, potentially influencing responses (Matsumoto & Juang, 2016).

Future Prospects

1. **Neurocognitive and evidence-based studies** should be used in future for brain imaging to show how Emotional intelligence training changes brain function and reduces Cognitive distortions over time.
2. Cross cultural Emotional intelligence frameworks should be incorporated to expand research to include cultural, linguistic, and socio-economic contexts for **globally relevant and culturally sensitive interventions.**

3. **Trauma-informed Emotional intelligence approaches** and principles should also be developed into Emotional intelligence interventions to address the heightened Cognitive distortions and Emotional regulation challenges often experienced by **trauma survivors,** ensuring strategies are safe, supportive, and effective for diverse populations.
4. The impact of Emotional intelligence on leadership styles, decision-making, and team dynamics in various **organizational settings** should be examined by the research.
5. **Development and validation of culturally adapted measures** of Emotional intelligence should be focused on, to ensure accurate assessments **across diverse populations.**
6. The influence of Emotional intelligence on **coping mechanisms and stress management in high-pressure situations** like emergencies, crises, or workplace stress should be examined.

Conclusion

The present study set out to investigate whether individuals with higher levels of emotional intelligence (EI) demonstrate stronger coping abilities when faced with cognitive distortions. The results indicate that EI plays a meaningful role in shaping how people recognize and manage the emotional consequences of distorted thinking. While cognitive distortions were reported at moderate levels across the sample, participants with higher EI tended to rely on more adaptive coping strategies. Gender differences in cognitive distortions were negligible, though slight variations in EI scores suggest that cultural or contextual factors may influence how emotional skills are expressed. Taken together, these findings support the view that EI can serve as a protective factor against maladaptive cognitive patterns. Several limitations should be considered when interpreting these results. The use of convenience sampling among foreign college students restricts the generalizability of the findings, and reliance on self-report measures raises the possibility of bias in participants' responses. The cross-sectional design further prevents causal conclusions, and the absence of reported reliability coefficients for the scales used limits the ability to evaluate psychometric strength in this context. Cultural and linguistic differences may also have shaped participants' understanding of EI and cognitive distortions, which highlights the importance of culturally sensitive approaches in future research. Future investigations should build on these findings by employing longitudinal and neurocognitive methods to clarify causal relationships, incorporating cross-cultural frameworks, and designing trauma-informed EI interventions. Expanding research into organizational and high-stress environments, as well as developing culturally adapted EI measures, would enhance the practical relevance of this work. By pursuing these directions, future studies can deepen understanding of the protective role of EI and inform interventions that strengthen resilience and adaptive coping across diverse populations.

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