

A Comparison of Transdiagnostic Components in Generalized Anxiety Disorder, Unipolar Mood Disorder and Nonclinical Population

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Abstract—Background: Dimensional and transdiagnostic approaches as a result of high comorbidity among mental disorders have captured researchers and clinicians interests for exploring the latent factors to development and maintenance of some psychological disorders. The goal of present study is comparing some of these common factors between generalized anxiety disorder and unipolar mood disorder. Methods: 27 patients with generalized anxiety disorder, 29 patients with depression disorder were recruited by using SCID-I and 69 non-clinical populations were selected by using GHQ cut off point. MANCOVA was used for analyzing data. Results: The results show that worry, rumination, intolerance of uncertainty, maladaptive metacognitive beliefs, and experiential avoidance were all significantly different between GAD and unipolar mood disorder groups. However, there weren't any significant differences in difficulties in emotion regulation and neuroticism between GAD and unipolar mood disorder groups. Discussion: Results indicate that although there are some transdiagnostic and common factors in GAD and unipolar mood disorder, there may be some specific vulnerability factors for each disorder. Further study is needed for answering these questions.

Keywords—Depression, emotion regulation, generalized anxiety disorder, transdiagnostic.

I. INTRODUCTION

THE high rate of comorbidity among mental disorders has led researches for exploring factors associated with the development of multiple types of psychopathology, referred to as transdiagnostic factors [1]. Transdiagnostic approach has been focus of attention in recent years.

Focus of this approach is on the common factors which involve in the development and maintenance of a full range of psychological disorders, especially emotional disorders like

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anxiety and mood disorders and is seeking to reach a common treatment plan which is more efficient and applicable. So far many studies have been done on a number of these vulnerability factors. These variables include worry [2], rumination [1], self-focused attention [3], thought suppression [4], behavioral avoidance/inhibition [5], [6], experiential avoidance [7], intolerance of uncertainty [8], emotion dysregulation [9], [10], maladaptive metacognitive beliefs [11], biased memory [12], [13], maladaptive coping responses [14], perfectionism [15].... Multiple researches have shown the role of some of these factors in etiology and maintenance of anxiety and unipolar mood disorders. We will point out some of them in this article. Worry and rumination are two common cognitive constructs which are together called repetitive negative thoughts. Clinical studies show that worry and rumination are vulnerable constructs for anxiety disorders, including generalized anxiety disorder and unipolar mood disorder [16], [17]. Maladaptive metacognitive beliefs including negative beliefs about worry, cognitive confidence, cognitive self-consciousness, beliefs about uncontrollability and danger and need to control thoughts are used by people diagnosed with depression and generalized anxiety disorders as a coping mechanism [18], [19]. In recent years, intolerance of uncertainty as a main feature of cognitive model of GAD has attracted research attention. It is defined as a dysfunctional reaction to ambiguous and uncertain situations which are believed to be stressful and upsetting [21], [22]. Evidence is accumulating that intolerance of uncertainty as a cognitive vulnerability, might be a developmental and maintaining construct across anxiety disorders especially GAD and depression [8], [22], [23].

Another transdiagnostic construct related to this research is experiential avoidance. It is defined as emotional, cognitive, and behavioral efforts to avoid or escape distressing thoughts, feelings, memories and sensations [24]. In a related area of research, there are growing evidences that individuals with MDD, GAD and other anxiety disorders struggle with experiential avoidance more than nonclinical sample [25]-[27]. Neuroticism is a personality trait which refers to the degree people experience negative emotions like anxiety and depression [28]. Among individuals with GAD, the severity of GAD is positively associated with neuroticism [29]. There is also a positive relationship between severity of unipolar mood depression symptoms and severity of neuroticism [30]. Furthermore, Duggan, Lee, & Murray have shown in their study that high neuroticisms scores on EPI are associated with

poor overall outcome and chronicity among patients with depression [31].

The final transdiagnostic component that is considered so important in the appearance of the transdiagnostic approach is emotion dysregulation. Emotion regulation examines how individuals influence, manage, experience, and express their emotions [32]. Multiple studies have shown that difficulties in emotion regulation and using maladaptive emotion regulation strategies is correlated with anxiety disorders such as GAD and depression [9], [33], [34].

Recently, processes of mental disorders have caught attention of many clinicians and researchers. We mentioned some of these processes and their relations to GAD and depression. Another important point is that these transdiagnostic factors are interrelated by a variety of methods. For example, persons with GAD may experience emotions as subjectively aversive and distressing and use worry as an involuntary strategy to control and modulate their emotions [35]. Experiential avoidance mediates the effects of relationship between emotion regulation styles and uncontrollability on anxiety and stress [36].

Also evidence shows that there is a relation between neuroticism and rumination. And rumination mediates the relation between neuroticism and symptoms of depression and anxiety [16]. McEvoy & Mahoney explain that intolerance of uncertainty is significantly related to GAD and intolerance of uncertainty partially mediates the neuroticism and GAD symptoms. Furthermore, worry, rumination, anxiety and depression are significantly intercorrelated [37], [38].

The most important point that this research is based on is the high comorbidity between GAD and unipolar mood disorder. Extensive evidence shows that GAD is the most common disorder occurring comorbidity with GAD [39], [40]. One study showed that 42% of the patients with GAD had experienced at least one major depressive episode during their lifetime [41]. Furthermore, at one study 39% of participants with GAD had a comorbid diagnosis of MDD at intake and increased highly at the years follow-up [42].

For interpreting the comorbidity, some researchers consider an alternative approach that focuses on common dimensions of emotional disorders over disorder-specific criteria and are empirically supported [43]. To understand and classify psychopathology, others have emphasized on a model-based approach [44]. Also, Krueger suggests that comorbidity results from common underlying core psychopathological processes [45]. Furthermore, evidence shows that the presence of depressive/anxiety comorbidity increases medical service utilization. It is also positively correlated with chronicity, slower recovery, increased rate of recurrence, and greater psychological disability [46]. One study indicates that the presence of comorbid anxiety or depressive disorders is consistently associated with moderate increases in the symptoms of alcohol abuse and dependence [47].

To added, GAD is one of the most frequent (up to 10%) of all mental disorders seen in primary care and it is a highly impairing condition [48]. Furthermore, GAD is frequently comorbid with other psychological disorders and somatic

complains. Comorbidity is associated with greater psychological and social impairment, need for additional treatment, extended course and poorer outcome [49]. It also imposes a significant financial burden on mental health [50]. They also unlikely to recover without significant psychological, economical and social interventions [51]. Furthermore people with anxiety and depression disorders have low quality of life [52], [53]. One study showed that quality of life dimensions in patients with GAD including self-esteem, goals and values, money, work, play, learning, creativity, friends, and relatives are lower than nonanxious people [54]. Depression is another emotional disorder with transdiagnostic features. It is estimated that by 2020, depressive disorder will account for the most global burden of disease after heart disease [55]. Almost one-fifth of people suffer from depression [56]. It is highly comorbid with anxiety disorders, and other psychiatric disorders like substance use, alcoholism and impulse control disorder [47]-[56]. Also, within the labor force, depression is strongly associated with unemployment [57].

In line with transdiagnostic approach, there have been extensive studies examining the role of each common factor in large and various psychological and somatic disorders and proposing unified protocol for them according to approved common transdiagnostic processes along mental disorders [1], [10], [11], [58]-[65].

Given evidence that worry, rumination, maladaptive metacognitive beliefs, intolerance of uncertainty, experiential avoidance, neuroticism and emotion dysregulation are transdiagnostic factors, the present study hypothesizes that there are no significant differences in these psychological vulnerabilities across generalized anxiety disorder and unipolar mood disorder. So this study was conducted to evaluate the differences in patients with generalized anxiety disorder and unipolar mood disorder in some transdiagnostic components (worry, rumination, maladaptive metacognitive beliefs, intolerance of uncertainty, experiential avoidance, neuroticism, and emotion dysregulation).

II. METHODS

A. Participants

Participants included individuals with a primary diagnosis of generalized anxiety disorder ($n=27$; 11 male, $M_{age}=31/44$, $SD=8/47$), individuals with primary diagnosis of unipolar mood disorder ($n=29$, 8 male, $M_{age}=31/69$, $SD=9/1$) and individuals with no psychiatric disorder ($n=69$, 29 male, $M_{age}=29/26$, $SD=6/82$). All participants (including clinical and nonclinical groups) were matched according to age, gender, education, marital status and history of hospitalization. Exclusion criteria for clinical groups were: presence of any cognitive disorders, substance abuse, mental retardation and psychotic disorders.

B. Procedure

All participants in the GAD and unipolar mood disorder groups were recruited from Roozbeh Hospital and psychiatric

and psychological clinics all over Tehran. Individuals who appeared to meet study criteria were identified and diagnosed by a psychiatrist. After receiving information about the study, and expressing interest in participating, potential participants were given the consent form. After signing the consent form, participants were subjected to a Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Axis I Disorders (SCID-I). The interviews were conducted face-to-face by researcher who had received training for use of the instrument. After establishing the diagnosis and being certain about the diagnosis, potential participants completed the following questionnaires: Demographic Questionnaire, Beck Depression Questionnaire (BDI-II), Beck Anxiety Questionnaire (BAI), Penn State Worry Questionnaire (PSWQ), Rumination Response Scale (RRS), Metacognitive Questionnaire-30 (MCQ-30), Intolerance of Uncertainty Scale (IUS), Acceptance and Action Questionnaire-II (AAQ-II), the neuroticism scale of shortened and revised form of Eysenck Personality Questionnaire Scale (EPQ-RS), Emotion Regulation Questionnaire (ERQ), and Difficulties in Emotion Regulation Scale (DERS).

Non-clinical participants were recruited from different areas of Tehran, including Tehran University, Tehran University of Medical Sciences and different regions of Tehran. After signing the consent form, they were asked to complete the study questionnaires. In order to be sure about their mental health, they completed General Health Questionnaire (GHQ) too. Cut off point for Iranian population is 23. So all participants whom got score 23 or more were eliminated from the study. In total, 150 participants completed the questionnaires and 78 were included in final sample.

C. Ethical Consideration

This study was approved by the committee for medical ethics. Informed consent was obtained before giving questionnaires to participants. Participants were assured that their demographic information would be kept secret. They were told they could leave the research whenever they want. Also, all of participant's questions were answered during research.

D. Measures

1. Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Axis I Disorders (SCID-I): The SCID-I is a semi-structured and reliable instrument for the measurement and diagnosis of selected Axis I mental syndromes and disorders according to the criteria of the Diagnostic and Statistical manual [66]. It's inter-related reliability has been reported, $k=0.70-1$. The Persian version of SCID-I also has good reliability ($k=0.52$ for current diagnosis and 0.55 for lifetime diagnosis) [67].

2. Demographic Questionnaire: This questionnaire includes demographic information needed for the present study, like age, gender, marital status, social economical status, psychological and physical condition.

3. Beck Depression Questionnaire (BDI-II): It comprises of 21 items that assesses severity of depression disorder. Each item is scored from 0 to 3, with higher scores indicating greater depressive symptoms. Total scores are obtained by summing all items and range from 0 to 63 [68]. It's mean coefficient alpha is reported as 0.86 in psychiatric populations and 0.81 in non-psychiatric populations. It's mean test-retest reliability is also reported 0.86 [69]. In Iran, in a study on 354 recovered depressed patients, internal consistency was reported 0/91 [70]. Other researches in Iran reported coefficient alpha of 0/91, test-retest of 0.81 over a week and convergent validity of 0.61 (with BDI) for the BDI-II [71].

4. Beck Anxiety Questionnaire (BAI): BAI consists of 21 items and is a 4-point Likert type that assesses cognitive and somatic symptoms of anxiety. Scores range from 0 to 63, with higher scores indicating higher levels of anxiety [69]. BAI has shown high internal consistency ($\alpha=0.92$) and test-retest reliability over a week (0.75). In addition, the BAI was moderately correlated with the revised Hamilton Anxiety Rating Scale (0.51) [72]. Good and acceptable psychometric properties have been reported by other studies in clinical and non-clinical samples [73]-[74]. The psychometric properties of Persian version was assessed by Kaviani & Mousavi that proved a good reliability (0.72), a very good validity (0.83) and an excellent internal consistency ($\text{Alpha}=0.92$) [75].

5. Penn State Worry Questionnaire (PSWQ): It is a 16-item measure consisting of statements about worry. Each statement is scored on a 5-point answer scale ranging from 1 to 5 yielding a total score ranging from 16 to 80. With higher scores indicating greater worry levels [76]. It was shown that the scale has very good internal consistency (Cronbach's alpha of 0.93) and high test-retest reliability (0.74-0.93) [76]. PSWQ has also evidenced quite favorable internal consistency using GAD patients and each of the anxiety disorder groups (0.86 to 0.95) and control group (0.90) [77]. Psychometric properties of Persian version of the scale demonstrated high internal consistency (0.88) and test-retest reliability (0.79). In addition, the significant correlation between PSWQ scores and two variables of trait anxiety scores (0.68) and depression scores (0.49) indicated PSWQ's goods validity [78].

6. Rumination Response Scale (RRS): RRS is a self-report measure that assesses the tendency to ruminate in response to depressed mood. The RRS contains 22 items that are symptom-focused, self-focused, or focused on possible causes and consequences of depressed mood. Participants respond on these items on a 4-point Likert-type scale ranging from 0 to 3 and yielding scores from 22 to 88 [79]. The RRS possesses good internal consistency ($\alpha=0.89$) and 5-month retest reliability [80]. Internal consistency of Persian version is reported 0.88 to 0.92 using Cronbach's alpha which is good and reliable [81].

7. Metacognitive Questionnaire-30 (MCQ-30): measures a range of metacognitive beliefs and processes that involve in development and maintenance of emotional disorders [82]. MCQ includes 30 items that are rated on a 4-point scale and the scores can range from 30 to 120. Higher scores indicate higher levels of metacognitive beliefs or processes. The MCQ-

30 is composed of five correlated but conceptually distinct factors: 1. positive beliefs about worry (positive beliefs), 2. Negative beliefs about worry concerning uncontrollability and danger (uncontrollability and danger), 3. Lack of cognitive confidence that measures low confidence in memory, 4. Beliefs concerning the need to control thoughts (need to control thoughts), and 5. Cognitive self-consciousness that assesses the tendency to monitor one's own thoughts. The internal consistency of the total score ($\alpha = 0.93$) and its subscales (0.72-0.93) were found to be satisfactory [82]. In addition, MCQ-30 scores have been positively correlated with obsessive-compulsive, anxiety and depression symptoms in multiple studies [19]-[83]. Psychometric properties of Persian version of this scale have been acceptable [84].

8. Intolerance of Uncertainty Scale (IUS): this scale was first developed by some expert researchers [20]. IUS consists of 27 items that measures the degree to which participants find uncertainty to be unacceptable [21]. The items are rated on a 1-5 scale and overall scores can range from 27 to 135. Higher scores indicate greater intolerance of uncertainty. The scale has been shown to exhibit high internal consistency, $\alpha = 0.94$ and good test-retest reliability over 5 weeks, $r = 0.75$ [21]. In another study internal consistency was also satisfactory, $\alpha = 0.88$ [85]. The internal consistency of Persian version of the scale is reported to be high, $\alpha = 0.88$ and the test-retest reliability over 3 weeks were 0.76 [86].

9. Acceptance and Action Questionnaire-II (AAQ-II): the Acceptance and Action Questionnaire was first developed in 2004 [87]. The second version of the Acceptance and Action Questionnaire (AAQ-II) was then developed in order to reduce defects of the former version and makes it more applicable [88]. It's a 10-item scale and assesses the tendency to evaluate unwanted thoughts and feelings negatively, not accept them and try to alter or escape from them [26]. In total, it refers to as acceptance, experiential avoidance and psychological flexibility. Responses range from 1 (never true) to 7 (always true) with higher scores reflecting greater psychological flexibility. The AAQ-II has yielded one single factor referred to as experiential avoidance. The mean alpha coefficient has been shown to be 0.84 (0.78-0.88) and the 3- and 12- month test-retest reliability has been proved to be 0.81 and 0.79 respectively [88]. The internal consistency of the Persian version of the AAQ-II has shown to be high, $\alpha = 0.71$ -0.84 [89]. They identified two factors of avoidance of emotional experiences and be in control of life. Moreover, avoidance of emotional experiences correlated significantly with depressive and anxiety symptoms as well as poor mental health.

10. The neuroticism scale of shortened and revised form of Eysenck Personality Questionnaire Scale (EPQ-RS): EPQ-RS is 48-items scale. It consists of four subscales: introversion (stability /emotionality) Extraversion (extraversion /introversion), Psychoticism and a Lie subscale for revealing falsehood. It is applicable for the age range 16-70 years-old. The neuroticism subscale is a 12-item subscale with dichotomous (Yes or No) answer [90]. The internal consistency (α) for the neuroticism subscale for male and female has shown to be 0.84 and 0.80 respectively. The

Cronbach's alpha for Lie subscale for male and female has been reported 0.77 and 0.73 respectively [90]. Psychometric properties of Iranian version of EPQ-RS have reported to be well with high internal consistency, $r = 0.74$ [91].

11. Emotion regulation questionnaire (ERQ): ERQ is 10-item scale [92]. It assesses individual differences in the use of two various emotion regulation strategies: cognitive reappraisal (6 questions) and expressive suppression (4 questions). Items are scored on a 7-point scale. It has been reported to have high internal consistency for reappraisal subscale, $\alpha = 0.79$ and suppression one, $\alpha = 0.73$ and good test-retest reliability, $r = 0.69$ [92]. Because ERQ was not been translated and its psychometric properties were not been assessed in Iran, we assessed its psychometric properties in other research (in preparation). The internal consistency for both subscale were the same and satisfied, $\alpha = 0.76$.

12. Difficulties in Emotion Regulation Scale (DERS): DERS is a 36-item scale [92] and assesses individual's typical tendencies for emotion regulation across several facets: 1- Nonacceptance of emotional responses (NONACCEPTANCE). 2- Difficulties engaging in goal directed behavior (GOALS). 3- Impulse control difficulties (IMPULSE). 4- Lack of emotional awareness (AWARENESS). 5- Limited access to emotion regulation strategies (STRATEGIES). 6- Lack of emotional clarity (CLARITY). The DERS demonstrates high internal consistency ($\alpha =$ higher than 0.80 for each subscale) and good test-retest reliability ($r = 0.88$). It also has shown to have adequate construct and predictive validity [93]. Psychometric properties of Persian version has demonstrated high internal consistency ($\alpha = 0.86$). The correlation between DERS and Zuckerman-Kuhlman Personality Questionnaire was significant [94].

General Health Questionnaire (GHQ): GHQ is a 28-item scale that assesses general health and psychological well-being [95]. It has four subscales: somatic symptoms, anxiety, social dysfunction, and depression. There are two methods for scoring: a bimodal diagnostic system (0-0-1-1), for psychiatric usage and a 4-point Likert scale (1-2-3-4) for comparing group differences and statistical usage. The cut-off score 4 for psychiatric cases have shown satisfactory sensitivity (88%) and specificity (84.2%). GHQ-28 has shown to have high Internal consistency (0.89) and satisfactory test-retest reliability (0.83) [95]. Psychometric properties of Persian version demonstrated high internal consistency, $\alpha = 0.90$ and good test-retest reliability, $r = 0.70$ [96].

E. Statistical Analyses

At first, using the differences between groups in demographic variables (to match) three groups was assessed. Except education there was no significant difference between three groups in these variables. So using multiple analyses of covariance (MANCOVA) the education entered in the model as a covariate.

III. RESULTS

MANCOVA showed an overall significant multivariate difference in all transdiagnostic factors used in this research among generalized anxiety disorder group, depression group and nonclinical sample. In fact, there were significant differences among three groups in AAQ-II (total score), DERS (total score) and all of its subscales, reappraisal, suppression, MCQ (total score) and all of its subscales, RRS (total score) and all of its subscales, IUS (total score) and all of its subscales, neuroticism (total score), BAI (total score), BDI (total score) and PSWQ (total score). Table I shows means, standard deviations and MANCOVA results of all dependent transdiagnostic factors and their subscales. In order to assess differences of dependent variables in multiple pairwise comparisons with Bonferroni correction were used as post hoc tests. There were significant differences between clinical and nonclinical samples in following variables: BAI (total score),

PSWQ (total score), RRS (total score), brooding, reflecting, MCQ (total score), uncontrollability and danger, need to control thoughts, factor 1 of IUS, factor 2 of IUS, IUS (total score), AAQ-II (total score), suppression, nonacceptance, and awareness. But there were no significant differences between GAD group and Depression group in these factors. Also there were significant differences between clinical and nonclinical samples and between GAD group and depression group in following variables: BDI-II (tot), depression-related, neuroticism, strategies, goals, & DERS (total score). Furthermore, there were significant differences between nonclinical and depression sample and between GAD group and depression group in impulsivity, between GAD and depression group in reappraisal. Also there were significant differences between nonclinical sample and depression group and between GAD group and depression in lack of cognitive confidence. Results of pairwise comparison for dependent transdiagnostic variables have shown in table II.

TABLE I
MEANS, STANDARD DEVIATIONS AND RESULTS OF MANCOVA FOR DEPENDENT TRANSDIAGNOSTIC VARIABLES

Variables	Nonclinical sample		Generalized anxiety disorder		Depression		F	Effect size	Significance
	M	SD	M	SD	M	SD			
BDI-II (tot)	7.43	6.1	20.11	8.29	36.13	12.34	78.36	0.67	0.001
BAI (tot)	5.82	4.6	21.51	11.64	26.34	12.81	45.22	0.54	0.001
PSWQ (tot)	40.77	8.63	58.66	9.31	57.82	12.91	32.33	0.36	0.001
RRS (tot)	41.85	9.59	56.85	13.89	61.27	12.97	28.86	0.33	0.001
Depression-related	22.28	5.42	30.88	7.69	35.58	7.76	32.88	0.42	0.001
Reflection	9.65	3.07	12.22	3.81	7.75	3.11	6.31	0.12	0.001
Brooding	9.91	2.67	13.74	3.8	13.93	3.74	15.55	0.28	0.001
MCQ (tot)	59	10.06	76.51	9.12	79.75	14.95	30.103	0.34	0.001
Positive beliefs	10.13	3.01	11.66	3.72	12.24	4.01	2.75	0.06	0.04
Need to control thoughts	8.2	2.77	10.55	2.6	10.96	2.54	9.67	0.18	0.001
Uncontrollability & danger	14.6	3.09	22.11	4.59	24.1	5.77	39.81	0.5	0.001
Lack of cognitive confidence	8.85	3.2	10.77	3.4	13.37	4.81	10.93	0.22	0.001
Cognitive self-consciousness	17.20	4.7	21.4	3.89	19.06	4.19	7.93	0.14	0.001
IUS (tot)	64.17	14.93	88.96	18.98	98.6	20.66	34.78	0.38	0.001
Factor 1 of IUS	35.34	8.6	50.11	13.23	55.58	12.54	28.48	0.42	0.001
Factor 2 of IUS	28.13	7.49	38.85	7.82	43.03	8.84	30.71	0.44	0.001
AAQ-II (tot)	53.44	8.26	36.85	12.17	31.79	11.42	34.03	0.47	0.001
Neuroticism	19.53	2.28	16.44	2.59	14.34	2.14	40.35	0.41	0.001
Reappraisal	21.96	6.1	23.14	6.38	18.31	7.02	3.47	0.05	0.03
Suppression	11.48	3.98	14.85	4.67	14.48	6.75	4.42	0.1	0.006
DERS (tot)	82.58	17.87	100.7	20.6	117.89	21.85	28.99	0.33	0.001
Nonacceptance	10.89	4.15	17.4	5.31	17.34	6.04	16.46	0.3	0.001
Goals	13.25	4.18	16.81	4.46	20.75	4.57	24.44	0.32	0.001
Impulse	13.44	4.36	16.51	5	21.72	6.48	18.14	0.32	0.001
Awareness	18.91	4.3	16.25	4.33	16.03	4.89	4.6	0.1	0.01
Clarity	9.63	3.17	12.07	4.53	14.41	3.85	9.63	0.2	0.001
Strategies	15.72	4.61	21.62	6.31	27.79	7.97	26.7	0.41	0.001

df= 2 & 130

TABLE II
RESULTS OF PAIRWISE COMPARISON FOR DEPENDENT TRANSDIAGNOSTIC
VARIABLES

Variables	NC-GAD	NC-DEP	GAD-DEP
BDI-II (tot)	-11.08***	-26.5***	-15.42***
BAI (tot)	-14.24***	-18.7***	-4.5
PSWQ (tot)	-16.54***	-15.01***	1.5
RRS (tot)	-14.49***	-19.97***	-5.47
Depression-related	-8.11***	-13.49***	-5.37*
Reflection	-2.48**	-2.19*	0.29
Brooding	-3.68***	-4.09***	-0.41
MCQ (tot)	-16.02***	-19.22***	-3.19
Positive beliefs	-1.09	-1.43	-0.33
Need to control thoughts	-2.19**	-2.61***	-0.41
Uncontrollability & danger	-7.27***	-9.27***	-1.99
Lack of cognitive confidence	-1/453	-3/911***	-2/458*
Cognitive self-consciousness	-4.1***	-2.1	2
IUS (tot)	-23.64***	-31.45***	-9.8
Factor 1 of IUS	-13.82***	-19.65***	-5.73
Factor 2 of IUS	-9.82***	-13.89***	-4.06
AAQ-II (tot)	16.24***	21.53***	5.28
Neuroticism	2.98**	5.05***	2.07**
Reappraisal	-2.21	2.42	4.63*
Suppression	-3.57*	-3.41*	0.15
DERS (tot)	-17.71***	-34.84***	-17.13**
Nonacceptance	-6.102***	-6.24***	-0.04
Goals	-3.61***	-7.46**	-3.85**
Impulse	-2.42	-7.75***	-5.15***
Awareness	2.55*	2.88*	0.32
Clarity	-2.23*	-4.45***	-2.13
Strategies	-5.63***	-11.89***	-6.25***

***p<0.01, **p<0.05, *p<0.1

IV. DISCUSSION

The current study was designed to compare some transdiagnostic factors in people with generalized anxiety disorder and unipolar mood disorder. Findings indicated that there are significant differences in transdiagnostic components among GAD, depressive mood disorder and nonclinical sample. Furthermore, Post-hoc analyses, using Bonferroni adjustment showed that there aren't significant differences among aforementioned disorders in most of transdiagnostic factors. These results provide initial support for quantitative differences between GAD and depressive mood disorders. However people with GAD and depressive mood disorders didn't show any differences in clarity, awareness, and nonacceptance as components of emotion regulation. Neuroticism also didn't show any significant difference between two main disorders. These results provide support for some categorical differences between GAD and depressive mood disorder.

There were significant differences in all transdiagnostic factors between clinical sample and nonclinical sample. Previous studies have indicated that rumination [38], [97], worry [98], maladaptive metacognition [11], [19], intolerance of uncertainty [99], [100], neuroticism [101], experiential avoidance [7] and difficulties in emotion regulation [94], [102] are common factors across emotional disorders. These studies confirm the role of these common factors in psychopathology of emotional disorders and support the results of the present study.

One explanation for the abovementioned results is that these factors are intercorrelated in multiple ways and their relationships have been confirmed in many researches. For

example rumination and worry may be so much the same constructs that have driven researchers to find their distinct and overlapping features [17]. Furthermore, intolerance of uncertainty, rumination, worry, and metacognitive beliefs has shown to be significantly correlated with each other [37]. Moreover, there have shown to be a significant relationship among intolerance of uncertainty, metacognitive beliefs, rumination, and depression [103]. Another study showed that persons with GAD may have difficulties in emotion regulation (difficulties in understanding emotional experiences and few skills for modulating emotions), so they may experience their emotions as subjectively painful and use worry or other maladaptive emotion regulation skills to modify their emotions [35]. To continue, experiential avoidance completely mediates the effects of reappraisal and suppression on routine positive and negative experiences and is associated with more negative affects and less positive ones [36]. In a recent study was shown that intolerance of uncertainty is significantly correlated with neuroticism and intolerance of uncertainty partially mediates the relation between neuroticism and generalized anxiety disorder [104]. All these intercorrelations of transdiagnostic components may be due to some other latent factors that aforementioned components are based on. Further researches are needed to answer this question.

A surprising result was that the extent of difficulties in emotion regulation was significantly different in two groups of clinical samples (GAD and depression disorder). This result is not accordance with our hypothesis that emotion dysregulation is a common transdiagnostic factor across a vast majority of mental disorders and isn't significantly different in emotional disorders. This may be due to cultural or methodological differences used in the present research.

Inconsistent with our hypothesis, neuroticism show significant differences in generalized anxiety disorder and depressive mood disorder.

There are several limitations in the current study that should be considered. First, the current study represents the first attempt to assess multiple transdiagnostic factors; replication of the current results with additional samples would be beneficial for generalizability of our findings to a larger population. Second, assessing a wider range of transdiagnostic factors could be included in future studies to obtain more comprehensively view of their relations. Third, assessing some of these transdiagnostic factors as mediators and moderators in models represent pathways through which findings can be explained.

V. CONCLUSION

Taken together, however most of present findings are in line with transdiagnostic approach and dimensional categorization, some other findings support categorical approach that explains there is a qualitative differences among psychological disorders.

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