LAY THEORIES OF CAUSES OF AND CURES FOR DEPRESSION IN A TURKISH UNIVERSITY SAMPLE

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This paper reports a study on university students' attributions for the causes of and cures for depression conducted in a Turkish sample. Results revealed six components for causes, which were trauma, job-related problems, loss, disposition, intimacy, and isolation. Seven components were found for cures, which were hobby, sensation seeking, avoidance, professional help, religious practices, esteem, and spiritual activities. Men rated religious practices as more useful than women did. No other differences pertaining to gender or previous contact were found. Results are discussed together with the limitations of the study.

People have self-made theories about things around them to represent the universe in a meaningful and organized fashion. Both qualitative social-representation research and quantitative measures of lay theories provide data to understand, explain, and predict the "thinking of society" (Angermeyer & Matschinger, 1999). Theoretically, examining lay theories of different concepts gives clues in understanding the mechanisms of thinking. Knowing the content of lay theories is a step further toward understanding their consequences. For practical benefits, figuring out the lay theories of depression would help professionals not only to understand the lay person's concepts but also to change them.

Lay theory researchers typically examined the lay conceptions for the causes of various disorders such as depression (Furnham & Kuyken, 1991), alcoholism

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(Furnham & Lowick, 1984), delinquency (Furnham & Henderson, 1983), and offensive behaviors such as rape (Harbridge & Furnham, 1991). There are also studies that focused either on the lay theories regarding the cures rather than the causes (e.g., Furnham & Henley, 1988), or on the relationship between the causes and the cures of anorexia nervosa (Furnham & Hume-Wright, 1992), homosexuality (Furnham & Taylor, 1990), and heroin addiction (Furnham & Thomson, 1996). Finally, one study has linked the lay beliefs concerning the causes to the symptoms of schizophrenia (Furnham & Rees, 1988).

Depression, as one of the most prevelant disorders among psychological problems, receives considerable attention in community settings. Furnham and Kuyken (1991) argue that in psychiatry the term *depression* has a two-fold connotation. First, depression can be considered as a *state, trait or a symptom that is secondary to a physical or a physiological disorder*. Second, it refers to a *welldefined mood disorder that has behavioral, cognitive and emotional symptoms*. On the other hand, lay people usually use "depression" to refer to a general negative emotional state. Lay theories of mental illness in general, and depression in particular, have been extensively studied in cultural and cross-cultural settings. Rippere (1980) found that people have higher order cognitions about the intensity and frequency of depression that they experienced. Rippere (1977, 1979) has also reported that people have cognitions and complex ideas about antidepressive behaviors. Research has also indicated cultural differences in lay conceptions of depression (Furnham, Ota, & Tatsuro, 2000) but these differences seem to diminish through acculturation (Furnham & Malik, 1994).

The cultural bases of lay theories are important for developing culture-specific interventions. Previous studies on the attitudes of lay people about mental illness in Turkey have focused mainly on the recognition and detection of mental illness (Eker, 1989; Eskin, 1989), and effects of social contact with the mentally ill (Arkar & Eker, 1997; Çirakoğlu, 1999). Being informed about lay theories of Turkish people will help professionals to utilize effective strategies in treatment of depression and developing programs. In general, the present study aimed to investigate Turkish university students' conceptualization of depression in terms of causes and cures. Generally speaking, there may be differences with respect to gender and previous contact with a depressed person regarding the conceptions of the causes of, and the cures for, depression.

METHOD

SUBJECTS

One hundred and seventy-four women and 169 men studying in a private university participated for the partial fulfilment of their course requirements. The mean age was 20.4 (SD = 2.4) ranging from 17 to 37. All students were enrolled

in the Faculty of Economic and Business Administration. Thirty participants (8.8 %) were graduate and 313 participants (91.2 %) were undergraduate students. Previous contact with a person who had received treatment for depression was reported by 113 (33.2 %) participants. The quality of contact was kept blind for confidentiality.

INSTRUMENTS

Demographic Information Questions (DIQ) Participants were asked to indicate their year of birth, gender, department, and previous contact with a person who received treatment for depression. They were also asked to provide their names for follow-up purposes, and they were assured that personal information would be kept confidential.

Causes of Depression Scale (CAD) A 61-item scale was developed. Eighteen items were included from the 32-item scale used in the Furnham and Kuyken (1991) study. These items were translated verbatim. The remaining 43 items were either adapted or used as originally written by the authors. Three items used in Furnham and Kuyken were intentionally excluded. Item 7 (...are homeless) was excluded because homelessness is not recognized as a social problem in Turkey. Item 8 (... are made redundant) was replaced with a culturally appropriate and meaningful item (... are under investigation). Finally, item 24 (... they get depressed without any apparent reason) was excluded because this statement did not indicate or refer to a specific cause.

In Turkish culture, the quality of intimacy and level of the relationship are firmly distinguished for different targets (Rüstemli & Kökdemir, 1993). Therefore, since the relationship with, for example, family, spouse, friends, and relatives may be different (Göregenli, 1997), items representing relationship with different targets were specified as separate items. All items were written in the third person singular because there is no gender typing in Turkish. The scale followed the probe "A person gets depressed because..." Participants used 7-point Likert type scales to indicate the importance of a given cause (1 = Not *important at all*, 7 = Very *important*).

Cures for Depression Scale (CUD) The 60-item scale was developed mainly based on a qualitative study conducted in a Turkish university sample (Çirakoğlu, Uluç, & Uluç, 2000). Statements were chosen by the authors with special attention to include professional and cultural practices. The scale followed the probe "What should a person do to overcome depression?" Participants used 7-point Likert type scales to indicate the usefulness of a given method (1 = Not useful at all, 7 = Very useful).

PROCEDURE

The DIQ, CAD, and CUD were administered together in class sessions. The

administration took approximately 15 minutes. Participants were reminded that they would be debriefed after the follow-up study. One participant refused to complete the scales.

RESULTS

CAUSES OF DEPRESSION SCALE (CAD)

Prior to analyses, data were screened for missing values, univariate and multivariate outliers (Tabachnick & Fidell, 2001). Seventeen cases were excluded because they were univariate outliers ($|z| \ge 3.30$). Nine cases were identified as multivariate outliers using Mahalanobis distance with p < .001. The remaining 318 cases were used for further analyses. Principal components analysis (PCA) was performed to discover the component structure of the CAD scale. PCA was preferred to factor analysis because the former is used to discover the empirical summary of the data set (Tabachnick & Fidell).

PCA with 61 CAD items revealed 17 components in the initial analysis. The examination of the scree plot indicated a six-component solution. Then, another PCA was run with varimax rotation forcing the number of components to six. Table 1 presents the PCA results. A cutoff level of .45 was decided for including a particular cause in a component because it explained 20% of variance. The first component consisted of nine items and explained 8.34 % of variance with an eigenvalue of 5.09. Internal consistency of the component was .82. The causes loaded under this component were related to severe life experiences (e.g., "Exposed to sexual abuse in childhood."), hence it was labeled as Trauma.

This second component included six items pertaining to job-related problems (e.g., "Is fired."). Job-related Problems explained 8.21% of variance with an eigenvalue of 5.01. The reliability of the component was .80.

The third component, which included eight items such as "Lost a relative through death.", was named was Loss. The explained variance was 8.03%, the eigenvalue of the component was 4.90, and the reliability was .80.

Disposition was the fourth component consisting of four items such as "Thinks negatively." It explained 6.78% of variance with an eigenvalue of 4.14. Internal consistency of the component was .64.

The fifth component was named Intimacy. Eight items with a reliability coefficient of .81 explained 6.65% of variance. The eigenvalue of the component was 4.06. A representative item for this factor was "Broken up with romantic partner."

The final component explained 5.13% of variance with an eigenvalue of 3.13. Consisting of five items (e.g., "Lives in a conservative environment.") with a reliability coefficient of .64, the component consisted of items relating to Isolation. Six components explained 43.14% of total variance and reliability for total scale was .94. Correlations among components are presented in Table 2.

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TABLE 1

| | | | | Component | | | | |
|--|--------------|------|-------|-----------|------|------|------------|------------|
| A person gets depressed because s/he | М | SD | 1 | 2 | 3 | 4 | 5 | 6 |
| has been exposed to abuse in childhood | 5.92 | 1.19 | .75 | | | | | |
| has been raped | 6.57 | .81 | .71 | | | | | |
| has been exposed to physical violence in childhood | 5.79 | 1.20 | .71 | | | | | |
| is a drug addict | 5.70 | 1.46 | 5 .56 | | | | | |
| has been victimized | 5.42 | | .56 | | | | | |
| has lost a spouse through death | 5.98 | | .47 | | | | | |
| has learned that s/he had been adopted | 5.03 | | .47 | | | | | |
| has been abused | 4.86 | | .45 | | | | | |
| has been tortured | 6.09 | | .46 | | | | | |
| has lost a job | 5.01 | | | .77 | | | | |
| is unemployed | 5.74 | | | .69 | | | | |
| is working in a job in which s/he does not want to work | 4.43 | | | .66 | | | | |
| has financial problems | 5.34 | | | .54 | | | | |
| feels social pressure | 4.75 | | | .53 | | | | |
| has failed in important exams in life | 4.99 | | | .51 | | | | |
| has lost a relative through death | 4.74 | | | | .63 | | | |
| has learned that someone s/he loves has a terminal illness | | | | | .60 | | | |
| has lost a friend through death | 5.27 | | | | .51 | | | |
| has a family member who has committed a shameful crim | | | | | .50 | | | |
| has witnessed someone suffering | 3.92 | | | | .49 | | | |
| has been harmed by a natural disaster | 5.61 | | | | .47 | | | |
| has problems in the workplace | 4.16 | | | | .45 | | | |
| has learned that s/he has a terminal illness | 6.06 | | | | .45 | ~ | | |
| has a dispositional tendency | 4.32 | | | | | .65 | | |
| has inherited this problem | 3.66 | | | | | .60 | | |
| thinks negatively | 4.67 | | | | | .57 | | |
| is not clever enough | 3.10 | | | | | .46 | ~ ~ ~ | |
| has broken up with a romantic partner | 4.11 | | | | | | .68 | |
| has problems with a romantic partner | 4.35 | | | | | | .67 | |
| has been betrayed by his/her spouse | 4.68 | | | | | | .66 | |
| has been rejected by a member of the opposite sex | 3.51 | 1.58 | | | | | .59 | |
| worries about becoming fat | 3.41 | 1.54 | | | | | .52 | |
| has sexual problems | 5.00 | | | | | | .47 .45 | |
| has divorced or separated | 3.95 | | | | | | .45 | |
| has marital problems lives in a conservative environment | 4.84 | | | | | | .44 | .54 |
| | 5.08 | | | | | | | |
| is not self confident | 5.19 5.00 | | | | | | | .54 .51 |
| has not enough friends | | | | | | | | .51 |
| is dissatisfied with his/her physical appearance had a miserable childhood | 4.53 5.60 | 1.51 | | | | | | .50 .47 |
| Eigenval | | | | 2.81 | 2 39 | 2.14 | 1 | 1.80 |
| Variance | | | | 4.61 | | | | 2.96 |
| Alpha | (, = | .82 | .80 | .80 | .64 | .8 | | .64 |

MEANS, STANDARD DEVIATIONS, RELIABILITIES, AND PRINCIPAL COMPONENT ANALYSIS RESULTS FOR THE CAUSES OF DEPRESSION SCALE

| Component Name | Trauma | Job-Related | Loss | Disposition | Intimacy | Isolation |
|----------------|--------|-------------|------|-------------|----------|-----------|
| Job-Related | .46 | | | | | |
| Loss | .58 | .48 | | | | |
| Disposition | .24 | .35 | .24 | | | |
| Intimacy | .34 | .50 | .49 | .22 | | |
| Isolation | .33 | .33 | .30 | .30 | .33 | |
| М | 5.67 | 5.02 | 4.87 | 3.85 | 4.25 | 5.06 |
| SD | 0.87 | 0.98 | 0.90 | 1.21 | 1.04 | 0.92 |

 TABLE 2

 Correlation Matrix Among CAD Components

Note: All correlations are significant at p < .05.

CURES FOR DEPRESSION SCALE (CUD)

PCA with 61 CUD items revealed 7 components in the initial analysis. The examination of the scree plot indicated a seven-component solution. Then, another PCA was run with varimax rotation forcing the number of components to seven.

Table 3 presents the PCA results. A cutoff level of .45 was decided for including a particular cause in a component. The first component consisted of nine items and explained 8.78 % of variance with an eigenvalue of 5.27. Internal consistency of the component was .83. The cure items loaded under this component were related to hobby and leisure activities (e.g., "Should engage in hobbies"), hence it was labeled as Hobby.

The second component included eight items related to Sensation Seeking (e.g., "Should go shopping"). This component explained 7.09% of variance with an eigenvalue of 4.25. The reliability of the component was .82.

The third component included six Avoidance items (e.g., "Should emigrate to another country"). The explained variance was 6.91%, the eigenvalue of the component was 4.14, and the reliability was .70.

The fourth component consisted of seven items such as "Should consult a psychiatrist" and was named Professional Help. It explained 6.61% of variance with an eigenvalue of 3.97. Internal consistency of the component was .78.

Religious Practices was the fifth component. Five items with a reliability coefficient of .72 explained 5.23% of variance. The eigenvalue of the component was 3.14. A representative item for this factor was "Should pray ."

The sixth component explained 5.06% of variance with an eigenvalue of 3.03. Consisting of five items (e.g., "Should try to forget negative experiences") with a reliability coefficient of .70, the component was named Esteem.

The final component, Spiritual Practices, consisted of 4 items. The representative item for this component was "Should engage in meditation, yoga, etc.". It

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explained 4.16 % of variance with an eigenvalue of 2.47 and the reliability coefficient was .64. Total variance explained was 43.80% and the reliability of the total scale was .91. Correlations among components are presented in Table 4.

TABLE 3

MEANS, STANDARD DEVIATIONS, RELIABILITIES, AND PRINCIPAL COMPONENT ANALYSIS RESULTS FOR THE CURES FOR DEPRESSION SCALE

| | | onent | t | | | | | | |
|---|------|-------|-----|-----|-----|-----|-----|---|---|
| What should a person do to overcome depression? | М | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| S/he should | | | | | | | | | |
| engage in hobbies | 5.93 | 1.09 | .69 | | | | | | |
| engage in artistic activities | 4.81 | 1.53 | .63 | | | | | | |
| have new goals for him/herself | 5.97 | 1.14 | .62 | | | | | | |
| take part in sports | 5.33 | 1.44 | .58 | | | | | | |
| join social activities | 5.73 | 1.22 | .56 | | | | | | |
| write down his/her problems | 3.81 | 1.84 | .53 | | | | | | |
| listen to music | 5.47 | 1.51 | .53 | | | | | | |
| take new responsibilities | 4.52 | 1.64 | .47 | | | | | | |
| give up blaming him/herself | 6.05 | 1.24 | .47 | | | | | | |
| go shopping | 3.71 | 1.98 | | .68 | | | | | |
| join parties | 4.92 | 1.62 | | .66 | | | | | |
| spend more time with friends | 5.33 | 1.32 | | .62 | | | | | |
| go on vacation | 5.65 | 1.31 | | .62 | | | | | |
| chat with friends | 5.02 | 1.37 | | .58 | | | | | |
| change his/her physical appearance | 3.99 | 1.78 | | .50 | | | | | |
| redecorate the home | 3.94 | 1.70 | | .49 | | | | | |
| engage in exciting/stimulating activities | 4.87 | 1.51 | | .48 | | | | | |
| emigrate to another country | 2.41 | 1.43 | | | .68 | | | | |
| change his/her job/school | 2.83 | 1.44 | | | .61 | | | | |
| move to another city | 2.93 | 1.54 | | | .61 | | | | |
| end old friendships | 3.61 | 1.57 | | | .53 | | | | |
| leave home | 2.90 | 1.59 | | | .50 | | | | |
| have sex | 3.28 | 1.90 | | | .46 | | | | |
| consult a psychiatrist | 5.45 | 1.80 | | | | .76 | | | |
| consult a psychologist | 5.97 | 1.48 | | | | .74 | | | |
| join group therapy | 4.32 | 1.68 | | | | .66 | | | |
| chat with his/her family | 5.14 | 1.60 | | | | .58 | | | |
| meet people with similar problems | 3.86 | 1.88 | | | | .53 | | | |
| seek help from a supervisor/teacher | 3.89 | 1.67 | | | | .48 | | | |
| get hospitalized | 2.79 | 1.58 | | | | .47 | | | |
| worship/pray | 3.45 | 1.98 | | | | | .72 | 2 | |
| s/he should thank God, comparing him/herself | | | | | | | | | |
| with the worse-off | 4.01 | 2.06 | | | | | .64 | 1 | |
| seek help from religious professionals | 1.73 | 1.06 | | | | | .58 | 3 | |
| carry religious items, talismans etc. | 1.61 | 1.05 | | | | | .58 | 3 | |
| have a baby | 3.22 | 1.78 | | | | | .46 | 5 | |

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Table 3 continued

| | | | Component | | | | | | |
|--|------|------|-----------|------|------|------|------|------|------|
| What should a person do to overcome depression | М | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| try to forget negative experiences | 5.41 | 1.55 | | | | | | .68 | |
| think about past achievements | 4.57 | 1.83 | | | | | | .61 | |
| not think negatively | 6.00 | 1.26 | | | | | | .55 | |
| regain self-confidence | 6.35 | 1.00 | | | | | | .54 | |
| not stay alone | 5.12 | 1.56 | | | | | | .46 | |
| mediate, do yoga, and the like | 2.41 | 1.47 | | | | | | | .60 |
| have hypnotherapy | 3.87 | 1.75 | | | | | | | .51 |
| use herbs | 2.62 | 1.50 | | | | | | | .51 |
| cry | 3.40 | 2.00 | | | | | | | .47 |
| Eigenvalı | ie | | 5.27 | 4.25 | 4.14 | 3.97 | 3.14 | 3.03 | 2.47 |
| Variance (| %) | | 8.78 | 7.09 | 6.91 | 6.61 | 5.23 | 5.06 | 4.16 |
| Alp | ha | | .83 | .82 | .70 | .78 | .72 | .70 | .64 |

Note: N = 288.

| Component | HB | SS | AV | PH | RP | ES | SP | |
|-----------|------|------|------|------|------|------|------|--|
| SS | .47* | | | | | | | |
| AV | .09 | .37* | | | | | | |
| PH | .38* | .18* | .03 | | | | | |
| RP | .17* | .31* | .26* | .24* | | | | |
| ES | .44* | .40* | .07 | .25* | .29* | | | |
| SP | .34* | .31* | .21* | .30* | .38* | .20* | | |
| М | 5.26 | 4.72 | 3.06 | 4.47 | 2.81 | 5.50 | 3.08 | |
| SD | 0.92 | 1.07 | 1.06 | 1.14 | 1.08 | 0.95 | 1.16 | |

 TABLE 4

 Correlation Matrix among CUD Components

Note: HB: Hobby, SS: Sensation seeking, AV: Avoidance, PH: Professional help, RP: Religious Practices, ES: Esteem, and SP: Spiritual Practices.

* p < .05

TEST WITH DEMOGRAPHIC ITEMS

Two separate 2 (gender) x 2 (previous contact) MANOVAs were carried out with CAD and CUD components serving as dependent variables (DV). No significant effect was found for CAD components. As for the CUD components, with the use of Wilks' criterion, the combined DVs were significantly affected by gender per se, F(7, 230) = 2.54, p < .05, A gender effect was found only in the

religious practices component. Men rated religious practices as more useful (M = 3.02, SD = 1.08) than women did (M = 2.57, SD = 1.07); F(1, 236) = 6.94, p < .05. No other differences pertaining to gender or previous contact were found.

DISCUSSION

This study aimed to delineate how university students perceive depression and what they think about the ways of overcoming depression. It is noteworthy that participants were not provided with any description of depression and statements were written so as not to specify a person at a specific age. Therefore, all the results depend on the participants' knowledge and associations regarding the term "depression". Data suggested that our sample have a considerable degree of knowledge of, and opinion about, depression.

Six components emerged in the analysis regarding causal attributions to depression. Participants found traumatic events such as rape, torture, violence, and death of spouse as the major causes of depression. The second component consists of items mainly related to job or financial problems. It is apparent that any financial problem that their family members experience might have threatening effects on the continuation of university education. Loss is perceived as another source of depression. The statement "has a family member who has committed a shameful crime" appeared in the loss component as well. This statement seems to have two-fold connotation and cultural ties. First, participants might have considered a crime with possible consequences such as being a prisoner. Secondly, it might be considered as a violation of a cultural norm and might have an abstract meaning; that is, the losing the family member emotionally. That emotional interdependence has been found to be important in Turkish culture regardless of the level of individuation (Imamoglu, 1998) seems to support this explanation.

The intimacy component consisted of statements related to relationship problems. One interesting point with this component is that the "worries about becoming fat" item is associated with relationships rather than with health related issues. Both men and women participants viewed body weight as being an important factor in interpersonal relationships. The last component included personal and social factors that lead to isolation of a person such as living in a conservative environment. The "not satisfied with his/her appearance" statement appeared under this component and supports evidence of how physical appearance is linked to social relationships. Our participants perceived physical appearance and self-confidence as isolating factors rather than as a disposition. Since this study is correlational, it is not possible to draw causal relationship between physical appearance and psychological disorders like depression. On the other hand, our data suggest that young people's causal attributions for weight concerns and psychological well-being should be investigated in the future for prevention purposes. Finally, although CAD covers a limited number of personality characteristics for practical reasons, our data suggest that personal dispositions and genetic factors are seen as sources of depression as well. Further investigation is needed to see to what extent dispositional and personality characteristics and genetic factors are perceived as sources of depression.

Results of this study revealed no significant differences in terms of gender and previous contact except for the religious practices component in the CUD scale. Men perceived religious practices as more useful than did women. Future research should focus on the nature of this difference as well.

It was interesting that causal attribution results obtained from a Turkish sample mostly overlapped with that of a Western sample (Furnham & Kuyken, 1991). There were also differences between the two studies being compared. These differences may be related to the item pool used in the scales. For example, job-related problems appeared as a single component in this study but there were a limited number of items used in the Furnham and Kuyken study. It seems that four components of the two studies overlap significantly (dimensions from Furnham and Kuyken are in parenthesis): trauma (traumatic experiences), loss (interpersonal loss), isolation (social structure deprivations), and intimacy (interpersonal difficulties). It is clear that the Turkish university sample has a view that is closer to Western views than is that of the general population. It should be noted that university students are a not a typical segment of Turkish society. They are better educated, younger than society in general and knowledgeable about contemporary issues. Therefore, results of the study may not be generalized to Turkish society and should be taken cautiously.

Research on lay theories of psychological problems and, specifically, depression usually provides valuable descriptive information about the conceptualization of the public. Results of this study also suggest some practical implications for practitioners. For instance, university counseling services may design individual and group interventions for grief counseling and they may promote availability of counseling services in case of an interpersonal loss. Utilization of such services in university campuses is closely related to informing people about "what to do when they lose someone and when they need help". It seems that educational campaigns about scientific ways of treatment of depression are needed. Supportive activities by counseling services for economic problems may be also taken into consideration when a nationwide economic crisis emerges.

Research regarding roles of lay theories in behaviors are very limited. Future research should focus on the relationship between lay theories and decision-making processes regarding the decisions for help-seeking behaviors.

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