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Association of Alexithymia and Depression Symptom Severity in Adults 50 Years of Age and Older

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Abstract

Objectives—Alexithymia is a characteristic style of thinking and feeling involving deficits in the recognition of emotions. It is associated with depression onset and severity in younger adults, but researchers have not yet examined the association between alexithymia and depression severity in clinically depressed older adults.

Design—Cross-sectional.

Participants—One hundred and thirty four patients 50 years and age or older with a confirmed DSM-IV Axis I mood disorder and currently receiving mental health treatment.

Measures—Alexithymia was measured using the Toronto Alexithymia Scale-20 (TAS-20), a 20-item measure with subscales assessing Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), and Externally Oriented Thinking (EOT). Depression symptom severity was measured using the Beck Depression Inventory Second Edition (BDI-II).

Results—Total alexithymia scores were independently related to depressive symptom severity after controlling for demographics, cognitive functioning and illness burden. DIF and DDF subscale scores were also independently associated with BDI-II scores.

Conclusion—The association between alexithymia and depression symptom severity could be attributed to difficulties in recognizing and describing negative emotions and resulting delays in seeking mental health treatment. Future research should focus on modifiable risk factors related to difficulties identifying and describing feelings.

Keywords

Alexithymia; depression; older adults

Derived from the Greek for “lacking words for emotions,” the term alexithymia was first used to describe a phenomena characterized by difficulty identifying feelings, difficulty communicating feelings, restricted imaginal capacity and externally oriented thinking.¹ More recent conceptualizations emphasize deficits in the regulation of emotions and impairments in the encoding and processing of emotional information.² Regardless of the conceptual framework, alexithymia’s hallmark symptom includes decreased ability to recognize emotions.^{2, 3}

With rare exceptions,⁴⁻⁶ alexithymia has been ignored in the geriatric psychiatry literature. This is surprising, because aspects of alexithymia increase with age⁷ and alexithymia is associated with an array of conditions seen in clinical psychiatric practice.^{8-10,11,12} Studies of clinical and community samples of adults have shown that alexithymia is associated with incident depression, depression severity, and poorer treatment outcomes.¹³⁻¹⁶ Previous research has examined the association between age and alexithymia.⁷ To our knowledge this is the first study of alexithymia and depression severity in a sample of adult 50 years of age or older receiving mental healthcare.

Of the numerous assessment procedures designed to assess alexithymia,^{2, 17, 18} we chose the most widely used scale, the Toronto Alexithymia Scale-20.² Despite its flaws,¹⁹ research has consistently shown that it has acceptable validity and internal consistency.²⁰ Its three subscales assess Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), and a tendency towards Externally Oriented Thinking (EOT).²⁰ At the subscale level, DIF and DDF are positively related to negative affect⁵ and depression.^{7,16} In community-dwelling older adults. In contrast, EOT is inversely related to negative affect.¹⁶

Based upon prior research,¹³ we hypothesized that alexithymia would be associated with depression symptom severity, even when controlling for known correlates of alexithymia and depression, including sociodemographics (age, sex and education),⁷ physical illness burden²¹ and cognitive functioning.²² We also hypothesized that the DIF and DDF subscales would be positively associated with depression symptom severity, but not associated with EOT.¹⁶

Methods

Participants

Study data were collected as part of a larger investigation of personality, depression, and suicide ideation among middle-aged and older adults.²³ Participants included depressed psychiatric patients 50 years of age and older recruited from inpatient and outpatient psychiatric services associated with teaching hospitals in Rochester, New York.

Procedures

Research coordinators screened records of all patients 50 years of age and older admitted to one of three hospital's inpatient units or seen for an intake session in one hospital's outpatient ambulatory mental health clinic for older adults, in order to identify patients with a known or suspected mood disorder.²³ Following receipt of approval from an attending physician or primary clinician, a member of the research team approached patients for study recruitment. After receiving written informed consent from the patient, the interviewer administered the Structured Clinical Interview for DSM-IV Axis I disorders.²⁴ Patients also completed a battery of self-report measures. Following acquisition of data and medical records, consensus diagnostic conferences were held. These meetings were attended by at least one psychiatrist, one psychologist, research interviewers, and other study investigators. Data on self-report instruments were not discussed in these meetings; conference attendees were blind to TAS-20 data. Interviewers delivered case presentations incorporating information from the review of medical records and diagnostic interview, which the research team discussed to reach diagnostic consensus. The validity of this diagnostic method has been demonstrated.²⁵

Measures

Alexithymia was assessed with the Toronto Alexithymia Scale-20 (TAS-20),² a 20-item, five-point Likert-scored self-report scale with response options ranging from 1 (strongly

disagree) to 5 (strongly agree). The TAS-20 is comprised of three subscales, assessing Difficulty Identifying Feelings (DIF; 7-items, e.g., “I am often confused about what emotion I am feeling.”), Difficulty Describing Feelings (DDF; 5-items, e.g., “I find it hard to describe how I feel about people.”), and Externally Oriented Thinking (EOT; 8-items, e.g., “I prefer to let things happen rather than to understand why they turned out that way.”). Five of the scale’s items are reverse-coded. The overall score (Cronbach’s $\alpha = .82$) and subscale scores [DIF (Cronbach’s $\alpha = .81$), DDF (Cronbach’s $\alpha = .65$), EOT (Cronbach’s $\alpha = .62$)] are internally consistent in the present study.

Depression symptom severity was assessed with the Beck Depression Inventory-Second Edition (BDI-II),²⁶ a 21-item measure of self-reported depression symptoms. Each item consists of a symptom of depression (e.g. “sadness”) and participants are instructed to rate each item from 0-3 based on the severity of each symptom over the last two weeks. For example, “sadness,” is rated as 0-*I do not feel sad*; 1- *I feel sad much of the time*; 2- *I am sad all or the time*; or 3- *I am so sad or unhappy that I can’t stand it*. Like other self-report questionnaires that require participants to choose among response options, the BDI-II taps the capacity to recognize, not identify or name, internal states.

Cognitive functioning was assessed using the Mini Mental Status Exam (MMSE).²⁷ The scale tests general orientation, short term memory, and general executive functioning. Scores can range from 0 to 30, with higher scores indicative of better cognitive functioning.

Physical Illness Burden was assessed with the Cumulative Illness Rating Scale (CIRS),²⁸ a validated²⁹ measure of the presence and degree of pathology in 13 areas grouped within six organ systems. During the consensus conference, a physician reviewed patient medical records, including the physical exam, and rated the severity of illness in each organ system on a five-point scale (from “none” to “extremely severe”). Higher CIRS scores are indicative of greater physical illness burden.

Statistical Analyses

Means and standard deviations were calculated for all variables. Zero-order Pearson correlation coefficients were calculated assessing associations among measures of alexithymia, depression, medical illness burden, cognitive functioning, education, age, and sex. Two hierarchical linear regression analyses were computed to determine the unique contribution of TAS-20 total and subscales scores on BDI-II scores controlling for participant demographics, cognitive functioning, and physical illness burden. Predictors were entered in two blocks. In the first regression analysis, we entered age, sex, education, MMSE, and CIRS scores as a block on Step 1, and TAS-20 total scores on Step 2. In the second regression analysis, we entered the same covariates as a block in Step 1, and the TAS-20 subscales on Step 2. All reported *p*-values are two-tailed, with α set at .05. Analyses were computed using SPSS 16.0.

Results

Demographics

Research coordinators approached 633 psychiatric inpatients and 39 outpatients over the age of 50 with suspected depression. Data on those who were deemed ineligible or who did not agree to participate are unavailable. Of the 250 patients who consented to participate, we excluded 53 with incomplete data and another 63 with diagnoses that potentially compromised their ability to respond accurately to study measures: cognitive disorders ($n = 15$), psychotic disorders ($n = 37$), substance-induced mood disorders ($n = 4$), and bipolar affective disorder most recent manic episode manic, hypomanic, or unspecified ($n = 7$). The final study sample included 134 study participants, including 53 (40%) men. The mean (SD)

age was 61.1 years (10.5) and mean (SD) level of education was 13.6 years (2.3). Fifty four percent were divorced ($n = 44$), separated ($n = 14$), or widowed ($n = 15$). Thirty six percent lived alone ($n = 48$). Eighty percent were unemployed ($n = 25$), receiving disability benefits ($n = 41$), or retired ($n = 41$). One hundred and nine met diagnostic criteria for a current major depressive disorder, 14 for bipolar I disorder most recent episode depressed, 5 for bipolar II disorder, and 6 for a depressive disorder not otherwise specified. Comorbid Axis I disorders included anxiety disorders ($n = 44$), alcohol or substance abuse ($n = 16$, including 10 in remission) or dependence ($n = 75$, including 52 in remission), and dysthymic disorder ($n = 9$).

Alexithymia and Depression

Descriptive statistics and zero-order bivariate Pearson correlation coefficients are reported for all study variables in Table 1. Higher alexithymia scores were significantly associated with more severe depression symptoms. The DIF and DDF scales were significantly positively related to depression severity, indicating that patients with more severe depression reported greater difficulty in identifying and describing their feelings.

We next investigated whether alexithymia is associated with depressive symptom severity, controlling for age, sex, cognitive functioning, and medical burden (see Table 2). Results of a hierarchical linear regression analysis indicated that TAS-20 total scores were significantly associated with BDI-II total scores ($B=.532$, $SE=.097$, $B=.486$ $t=5.51$, $p < .001$), over and above covariates. Higher alexithymia scores were associated with increased depression symptom severity. Younger participants, those with lower cognitive functioning, and those with greater illness burden had higher depression scores.

We next repeated the hierarchical linear regression analysis predicting BDI-II scores with TAS-20 subscale scores together with study covariates (see Table 3). Findings indicated that the TAS-20 subscales explained significant additional variance in BDI-II scores over and above covariates. Patients with higher DIF and DDF scores, but not those with higher EOT scores, had higher BDI-II total scores. As in the first regression, younger participants, those with lower cognitive functioning, and those with greater illness burden had higher depression scores.

Discussion

Consistent with research conducted with community-dwelling younger and older adults,^{16,30} we found that alexithymia, particularly difficulties identifying and describing feelings, is associated with more severe depressive symptoms in psychiatric patients 50 years of age and older. This is true even after accounting for medical illness burden, cognitive functioning, age, and sex. The tendency to engage in externally oriented thinking was not associated with depression symptom severity.

Previous research suggests that individuals high in alexithymia have difficulties with emotion regulation.² Current conceptual models suggest that effective emotion regulation enables individuals to influence their experience and expression of emotions.³¹ Socioemotional selectivity theory posits that perceived time constraints are linked to emotional and motivational processes. As people grow older, they become more oriented toward the present and consequently better able to regulate emotions. In support of the theory research has documented age-related decreases in the frequency of negative emotions.³² We speculate that these normative age-associated changes in emotion regulation may be compromised by alexithymia. Depressed older adults who have difficulty identifying feelings may be at a disadvantage when it comes to managing stressors and other emotion-evoking events. For example, one effective coping strategy, cognitive reappraisal,

requires the capacity to identify and label one's internal experience.³¹ Depressed older adults who have difficulty identifying feelings may be less able to use reappraisal strategies. Although there are no definitive studies on how alexithymia affects the capacity of older adults to manage age-related stressors, prior research is suggestive.^{33, 34} In one study, people with greater alexithymic tendencies scored higher on a self-report measure of immature defenses (e.g., regression, acting out) that are believed to compromise adaptive functioning.³⁵

The capacity to place discrete labels on emotional experiences is impaired in people who have difficulty describing feelings³ which in turn compromises the communication of emotional experiences to others. Depressed older adults with alexithymia may be limited in their ability to communicate their feelings to members of their social network and to health care providers, although they may report neurovegetative symptoms. As a result, detection of depression may be hindered and treatment initiation for mood disorders delayed, even while treatment for other symptoms (e.g., sleep) might be initiated. By the time they seek treatment and are recognized as being depressed, their symptoms may be relatively more severe and enduring. We cannot test this hypothesis in the current study because the sample largely included more severely depressed inpatients who were currently receiving treatment. It could be examined in future research.

The current findings should be considered in the context of the study's limitations. The study population was not constituted solely of older adults, but the age range and cross-sectional design does not permit us to answer the question of what contribution, if any, advancing age makes to alexithymia. We used self-report measures of alexithymia and depression; findings may differ with measures tapping implicit and nonconscious processes.¹¹ We cannot distinguish between stable trait-like and state components of alexithymia.³⁶ This was a study of predominantly White treatment-seeking residents of the northeastern United States. Given that there are cultural differences in alexithymia,³⁷ the generalizability of the current findings is unclear. Future research is needed to explore whether alexithymia is related to depression symptom severity in other cultural contexts. Generalizability to nonrespondents and those unable to complete the battery is uncertain. No attempt was made to identify causal or mediational mechanisms. The identification of modifiable risk mechanisms or moderators linking difficulties identifying and describing feelings with depression severity could lead to interventions or treatments that can then be adapted or tailored to help address the needs of patients with alexithymia. For example, people who have such difficulties may be especially likely to have misconceptions about mental health treatment. These beliefs could be addressed in health care delivery settings using tailored communication strategies, which have proven effective in cancer control.³⁸

In conclusion, this is the first study documenting an association between alexithymia and depression symptom severity in a population of older adults receiving mental healthcare. The identification of causal mechanisms will lead to interventions that could influence patient care.

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Table 1

Means, standard deviations, and Pearson correlations for TAS-20 total and subscales scores, BDI-II, and participant demographics

Variables	TAS-20 total	DIF	DDF	EOT	BDI-II	MMSE	CIRS	Education	Age
TAS-20 total	1.00	.86***	.79***	.66***	.41***	-.27**	.09	-.31***	.09
DIF		-	.64***	.28**	.47***	-.12	.04	-.16	-.07
DDF			-	.29**	.44***	-.11	-.04	-.10	.09
EOT				-	.03	-.33***	.10	-.45***	.26**
BDI-II					-	.00	.05	.04	-.19*
MMSE						-	-.11	-.37***	-.31***
CIRS							-	-.02	.34***
Education								-	-.17
Age									1.00
Mean	54.1	19.6	14.8	19.6	24.2	27.7	6.2	13.6	61.1
SD	12.4	6.7	4.3	5.0	14.2	2.4	4.0	2.3	10.5

Note: TAS-20 = Toronto Alexithymia Scale-20; DIF = Difficulty Identifying Feelings; DDF = Difficulty Describing Feelings; EOT = Externally Oriented Thinking; BDI-II = Beck Depression Inventory-Second Edition; MMSE = Mini Mental State Exam; CIRS = Cumulative Illness Rating Scale. N=134. Pairwise deletion was employed for correlational analyses (n ranged from 92 to 134).

*
p < .05

**
p < .01

p < .001.

Table 2
Hierarchical multiple regression analysis predicting BDI-II with TAS-20 total scores and covariates (N=89)

Predictor	B	SE	β	t	p
Step 1					
Age	−0.72	0.15	−0.52	−4.85	0.00***
Sex	−3.17	2.82	−0.11	−1.13	0.26
Education	0.91	0.61	0.15	1.49	0.14
MMSE	−1.81	0.60	−0.32	−3.00	0.00***
CIRS	0.79	0.36	0.23	2.20	0.03*
Step 2					
TAS-20	0.53	0.10	0.49	5.51	.00***

Note: TAS-20 = Toronto Alexithymia Scale-20; BDI-II = Beck Depression Inventory-Second Edition; MMSE = Mini Mental State Exam; CIRS = Cumulative Illness Rating Scale.

Step 1: $R^2 = .26$, Adjusted $R^2 = .21$, S.E. = 12.56, $F(5, 83) = 5.78$, $p < 0.001$. Step 2: $R^2 = .46$, Adjusted $R^2 = .42$, S.E. = 10.80, R^2 change = .20, $F(1, 82) = 30.32$, $p < 0.001$.

*
 $p < .05$
**
 $p < .01$

 $p < 0.001$.

Table 3

Hierarchical multiple regression analysis predicting BDI-II total scores with alexithymia subscales and covariates (N = 89)

Predictor	B	SE	β	t	p
Step 1					
Age	-0.72	0.15	-0.52	-4.85	0.00***
Sex	-3.17	2.82	-0.11	-1.13	0.26
Education	0.91	0.61	0.15	1.49	0.14
MMSE	-1.81	0.60	-0.32	-3.00	0.00**
CIRS	0.79	0.36	0.23	2.20	0.03*
Step 2					
DIF	0.49	0.23	0.23	2.10	0.03*
DDF	0.97	0.36	0.29	2.72	0.00**
EOT	0.13	0.28	0.05	0.47	0.64

Note: TAS-20 = Toronto Alexithymia Scale-20; DIF = Difficulty Identifying Feelings; DDF = Difficulty Describing Feelings; EOT = Externally Oriented Thinking; BDI-II = Beck Depression Inventory-Second Edition; MMSE = Mini Mental State Exam; CIRS = Cumulative Illness Rating Scale.

Step 1: $R^2 = .26$, Adjusted $R^2 = .21$, S.E. = 12.56, $F(5, 83) = 5.78$, $p < .001$.

Step 2: $R^2 = .48$, Adjusted $R^2 = .43$, S.E. = 10.72, R^2 change = .22, $F(3, 80) = 11.36$, $p < .001$.

* $p < .05$

** $p < .01$

*** $p < .001$.