

RESEARCH ARTICLE

The association between attachment pattern and depression severity in Thai depressed patients

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Abstract

Objective

We aimed to study attachment patterns and their association with depression severity in Thai depressed patients.

Method

We conducted a descriptive study of depressed participants at King Chulalongkorn Memorial Hospital from November 2013 to April 2014. The Thai Short Version of Revised Experience of Close Relationships Questionnaire and the Beck Depression Inventory-II (BDI-II) were administered to all participants. We assessed BDI-II scores, classified by attachment patterns, using one-way analyses of variance. The associated factors and predictors of depression severity were analysed by chi-square and logistic regression analyses, respectively.

Results

A total of 180 participants (75% female; mean age = 45.2 ± 14.3 years) were recruited. Dismissing attachment was the most common pattern in Thai depressed patients (36.1%). Depressed patients with preoccupied attachment demonstrated the highest BDI-II scores. The best predictor of moderate to severe depression severity was preoccupied/fearful attachment (odds ratio = 3.68; 95% confidence interval = 2.05–7.30).

Conclusions

Anxious attachment was found to be associated with higher depression severity. Preoccupied/fearful attachment was the predictor of moderate to severe depression severity.

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Introduction

Major depressive disorder is one of the most common psychiatric disorders, and is the third leading cause of disability-adjusted life-years [1]. While the worldwide prevalence of depression is between 4.4–10.8%, in Thailand it is between 2.4–3.2% [1–3]. Severe depression leads to impaired daily life function, low productivity, and suicides, and has been found to be related with sex, age, education, comorbid anxiety symptoms, medical illnesses including metabolic disorders, substance use, social support, and stressful life events [1, 4–10].

Attachment is developed from infancy and persists across the lifespan [11]. Adult attachment patterns are classified into four subtypes: secure, preoccupied, fearful, and dismissing [12], with the latter three demonstrating insecure attachment. Adults with insecure preoccupied or fearful attachment styles have been found to have higher incidences of mental health conditions [13, 14]. While the pathophysiology of depression is still not clear [15], attachment theory is one of the developmental theories widely used to explain the psychological aetiology of psychiatric disorders including depressive disorder [14, 16–18].

The objective of the present study was to investigate the attachment pattern and its association with depression severity in Thai patients with major depressive disorder. We hypothesize that depressed patients with anxious attachment style are likely to have a higher degree of depression compared with those with secure attachment; however, there are limited studies concerning the role of attachment and depression severity in depressed patients, particularly in Thailand. Studying and understanding attachment patterns will assist clinicians in providing appropriate care to depressed patients and promoting mental well-being.

Materials and methods

Design, settings, and study sample

We conducted a cross-sectional descriptive study following STROBE guidelines [19]. As the proportion(p) of moderate to severe depression was 0.41, sample size was estimated by $p = 0.5$. Using alpha at 0.05 and power at 0.9, the required sample size was 93 [5, 20]. One hundred and eighty depressed participants aged 18 years and older were recruited by purposive sampling from the Department of Psychiatry at King Chulalongkorn Memorial Hospital in Bangkok from November 2013 to April 2014. We obtained approval from the Ethical Committee of the Institutional Review Board of the Faculty of Medicine at Chulalongkorn University (COA no. 687/2013). Participants were required to be diagnosed with major depressive disorder by the Diagnostic and Statistical Manual of Mental Disorders, 5th edition, and were excluded if they had any recorded active medical conditions or other major psychiatric disorders over the previous month [21]. Those who met the eligibility criteria were informed of the study's objectives and method and provided written informed consent.

Data collection

All participants completed the following questionnaires: a demographic data form, the Thai Short Version of Revised Experience of Close Relationships Questionnaire (ECR-R-18), and the Beck Depression Inventory II (BDI-II).

The Thai ECR-R-18 was used to measure attachment patterns [22]. It consists of 18 questions divided into anxiety and avoidance dimensions. The cut-off value of each dimension at ≥ 4 points indicates high levels of anxiety or avoidance. The attachment pattern can then be classified as secure (low anxiety, low avoidance), preoccupied (high anxiety, low avoidance), fearful (high anxiety, high avoidance), or dismissing (low anxiety, high avoidance). We

considered preoccupied and fearful pattern as an anxious attachment. By contrast, secure and dismissing patterns were categorized as a non-anxious attachment [12].

The BDI-II, a widely used questionnaire to assess depression severity, consists of 21 questions with a total possible score of 63 [23]. The severity of depression can be categorized as minimal (0–13), mild (14–19), moderate (20–28), and severe depression (29–63).

Statistical analyses

Data were analysed using SPSS software (version 22.0; IBM, Chicago, IL, USA). The attachment pattern is presented by frequency and percentage. One-way analyses of variance were used to compare BDI-II scores classified by attachment pattern. The associated factors of depression severity were analysed by chi-square test. Significant factors from the theoretical review [1, 4–10] and univariate analysis were entered into multiple logistic regression models (odds ratio [OR] and 95% confidence interval [CI]) to identify potential predictors of depression severity. $P < 0.05$ was considered statistically significant.

Results and discussion

We recruited a total of 180 participants (mean age = 45.2 ± 14.3 years). Most participants were female (75.0%), married (43.9%), had a bachelor's degree (38.9%), and had adequate income (77.8%). Approximately 66% of participants had at least one physical illness. Roughly 33% of participants had a history of substance use within the last year. Finally, 88.9% of participants were prescribed antidepressants and 16.1% had a history of psychiatric hospitalization Table 1.

Table 1. Participant's characteristics.

Characteristics	N (%) or Mean \pm SD	Characteristics	N (%) or Mean \pm SD
Sex		History of medical illness	113 (62.8)
Female	135 (75.0)	Common medical illness	
Male	45 (25.0)	Hyperlipidemia	46 (25.6)
Age (years)	45.2 \pm 14.3	Hypertension	41 (22.8)
min = 18 max = 83		Musculoskeletal disorders	34 (18.9)
Marital status		Allergy	27 (15.0)
Single	74 (41.1)	Gastrointestinal tract disorders	25 (13.9)
Married	79 (43.9)	Diabetes	14 (7.8)
Widow	14 (7.8)	History of Substances Use (within 1 year)	58 (32.2)
Divorce or Separation	13 (7.2)	Alcohol	31 (17.2)
Education		Tobacco	13 (7.2)
Primary school	35 (19.4)	Others	4 (2.2)
Middle school	23 (12.7)	Psychotropic drugs	
High school	20 (11.1)	Antidepressants	160 (88.9)
Diploma	12 (6.7)	Benzodiazepines	91 (50.6)
Bachelor	70 (38.9)	Antipsychotics	22 (12.2)
Higher than Bachelor	20 (11.1)	Mood stabilizers	5 (2.8)
Income	637.8	History of Psychiatric Hospitalization	29 (16.1)
(USD/month) median (IQR)	(318.9–956.6)		
Adequate income	140 (77.8)		

Abbreviation: IQR, interquartile range.

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Table 2. Attachment pattern and BDI-II score.

Attachment pattern	n (%)	BDI-II score (Mean±SD)
Secure	44 (24.4)	18.36±13.30
Preoccupied	28 (15.6)	26.68±10.54
Fearful	43 (23.9)	22.84±13.62
Dismissing	65 (36.1)	12.91±11.46

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Almost half of the participants were diagnosed with the minimum severity of depression (43.9%), followed by severe (22.8%), moderate (18.3%), and mild (15.0%). Dismissing attachment was the most common pattern found in these participants (36.1%), followed by secure (24.4%), fearful (23.9%), and preoccupied attachments (15.6%) Table 2. Depressed patients with preoccupied attachment demonstrated the highest BDI-II score, whereas those with dismissing attachment had the lowest score Tables 2 and 3.

The most substantial associated factor of depression severity was attachment pattern ($P < 0.01$) Table 4. The logistic regression analysis found that anxious attachment style (preoccupied/fearful) was the most statistically significant predictor for moderate to severe depression severity Table 5. In addition, AUCROC showed the value for anxious attachment style in predicting moderate to severe depression was 0.66 (Fig 1).

The present study found that attachment patterns associated with high levels of anxiety, namely preoccupied and fearful, were significantly predictive of moderate to severe depression severity. In addition, these patterns increased the likelihood of moderate to severe depression, after adjusting for sex, education, history of medical illness, and history psychiatric hospitalization (OR = 3.86; 95% CI: 2.05–7.30). The results from this study were consistent with prior studies that insecure attachment especially anxious attachment was correlated with severe depressive symptoms [24, 25]. Zhou et al. (2021) also found that comorbid anxiety symptoms were associated with suicidal attempts in major depressive disorder patients [4].

Attachment is a social connection formed between an infant and their primary caregiver [11]. A significant caregiver is important for emotional support during this critical period [11]. Inappropriate emotional support or adverse childhood experiences may cause insecure attachment styles [11, 26–28]. Many studies have found that attachment pattern is likely to persist into adulthood, as they will use their attachment style to relate to others [11, 12, 17, 18].

Anxious attachment patterns, including preoccupied and fearful, are associated with more severe depression [24, 25]. Although the exact pathophysiology of mental disorders remains unclear [15], psychiatrists believe that overall psychology is an essential component [29].

Table 3. Compared BDI-II score by one-way ANOVA.

	Sum of Squares	Df	Mean Square	F	P-value
Between groups	4703.649	3	1567.883	10.30	<0.001**
Within groups	26797.596	176	152.259		
Total	31501.244	179			

* $P < 0.05$, ** $P < 0.01$

Post Hoc Tests (Bonferroni)

Attachment pattern	Secure	Preoccupied	Fearful	Dismissing
Secure	-	-8.32*	-4.47	5.46
Preoccupied	8.32*	-	3.84	13.77*
Fearful	4.47	-3.84	-	9.93*
Dismissing	-5.46	-13.77*	-9.93*	-

* $P < 0.05$

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Table 4. Factors associated with depression severity.

Variables	Depression Severity				χ^2	P-value
	minimal to mild (n = 106)		moderate to severe (n = 74)			
	N	%	N	%		
Sex						
Male	29	64.4	16	35.6	0.8	0.38
Female	77	57.0	58	43.0		
Age (years)						
40 or lower	34	50.0	34	50.0	3.6	0.06
Higher than 40	72	64.3	40	35.7		
Education						
Lower than bachelor	57	52.2	43	47.8	3.3	0.07
Bachelor or higher	49	65.6	31	34.4		
Adequacy of income						
Adequate	83	59.3	57	40.7	0.1	0.75
Inadequate	23	57.5	17	42.5		
History of medical illness						
Yes	65	57.5	48	42.5	0.2	0.63
No	41	61.2	26	38.8		
History of substances use						
Yes	30	51.7	28	48.3	1.8	0.18
No	76	62.3	46	37.7		
History of psychiatric hospitalization						
Yes	16	59.6	13	40.4	0.2	0.66
No	90	55.2	61	44.8		
Attachment pattern (1)						
Secure	27	61.4	17	38.6	23.7	<0.001**
Preoccupied	8	28.6	20	71.4		
Dismissing	20	46.5	23	53.5		
Fearful	51	78.5	14	21.5		
Attachment pattern (2)						
Low level of anxiety (secure/dismissing)	28	39.4	43	60.6	18.3	<0.001**
High level of anxiety (preoccupied/fearful)	78	71.6	31	28.4		

**P<0.01

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Deficits in mentalization processes are an important risk factor for psychiatric disorders [13, 14, 16] because of difficulties in emotional regulation. Ciechanowski et al. (2002) determined that individuals with anxious attachment styles likely demonstrate ineffective communication skills, causing difficulties in the effective handling of psychosocial problems [18]. Edelman and Shaver (2004) explained that individuals with high attachment anxiety often worry with their

Table 5. Stepwise multiple logistic regression.

Variables	Adjusted OR	95% CI of Adjusted OR		P-value
		Lower	Upper	
Anxious attachment (preoccupied/fearful attachment)	3.86	2.05	7.30	<0.001**

**P<0.01, adjusted for sex, education, history of medical illness, and history of psychiatric hospitalization

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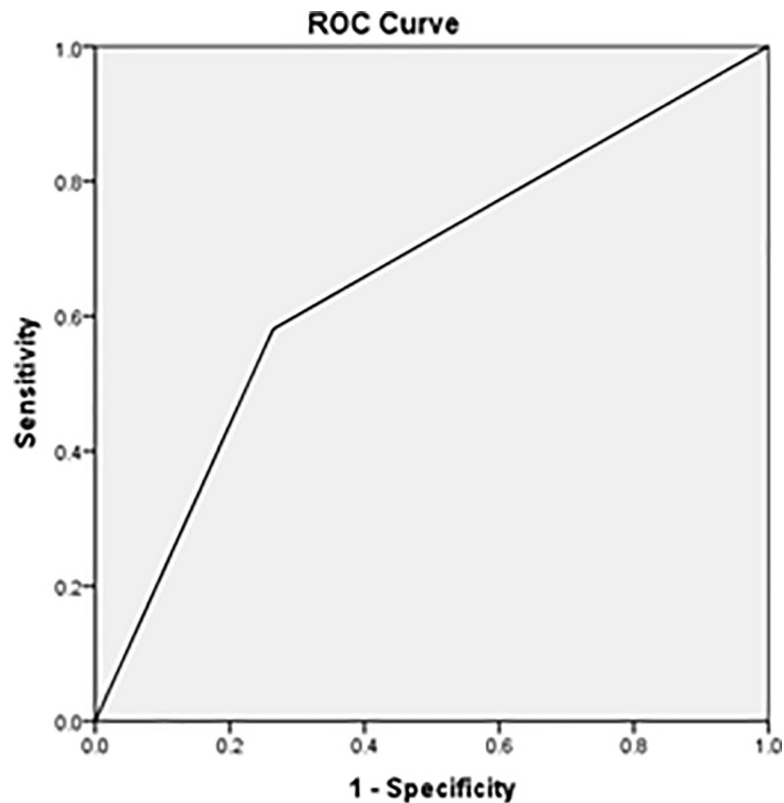


Fig 1. The discriminatory capacity of anxious attachment style in predicting moderate to severe depression. The area under the curve of preoccupied/fearful attachment was 0.66.

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symptoms; consequently, they seek reassurance from medical professionals, which may disrupt a healthy doctor-patient relationship [30]. Contrastingly, those with dismissing style of attachment are likely to underreport their symptoms [18, 30].

We are aware of several limitations of the present study. First, due to the descriptive design, we can only indicate associated factors, not causal relationships. Secondly, most of our participants were female. Finally, we only collected samples from the Department of Psychiatry at King Chulalongkorn Memorial Hospital, which may not be representative of all depressed patients in other cultural settings.

According to present study, insecure attachment was commonly found in patients with major depressive disorder. More severe depression was associated with anxious attachment patterns. Intervention to promote secure attachment may be an important strategy to reduce the risk of severe depression into adulthood.

Conclusions

Anxious attachment was the most common pattern in depressed patients and was associated with more severe depression. Understanding attachment patterns may be helpful for clinicians to develop and provide improved treatment to depressed patients.

Supporting information

S1 Data.

(SAV)

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