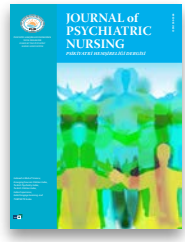
JOURNAL OF
PSYCHIATRIC NURSING

DOI: 10.14744/phd.2025.00947
J Psychiatric Nurs 2025;16(2):107-115



Original Article

The effect of alexithymia on functioning and perceived social support after a manic episode

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Abstract

Objectives: The aim of this study was to examine the correlation of alexithymia, functioning, and perceived social support in patients after a manic episode.

Methods: Sample selection was not carried out in this descriptive study, and 267 patients who met the inclusion criteria constituted the sample. Data collection was performed via face-to-face interviews using the Personal Information Form, Toronto Alexithymia Scale (TAS-20), Bipolar Disorder Functioning Questionnaire (BDFQ), and the Multidimensional Scale of Perceived Social Support (MSPSS). The data were analyzed using the SPSS program.

Results: It was determined that 19.5% (n=52) of the patients included in the study were alexithymic. A significant negative correlation was identified between alexithymia and perceived social support (r=–0.313; p<0.05) and functioning (r=–0.467; p<0.05), and a significant positive correlation was found between functioning and perceived social support (r=0.504; p<0.05). According to linear regression analysis, the alexithymia scores of the participants explained 22% of the variance in their functioning scores (R^2=0.218, F=73.797, p<0.001, 95% CI: 0.399–0.250), and alexithymia scores explained 10% of the variance in perceived social support scores (R^2=0.098, F=28.880, p<0.001, 95% CI: 0.308–0.143).

Conclusion: This study found that functioning and perceived social support decreased as alexithymia increased in post-manic patients. Functioning and perceived social support affect each other in the same direction. Interventions aimed at reducing alexithymia in patients after manic episodes may be useful in preventing episodes by maintaining functionality and increasing perceived social support.

Keywords: Alexithymia; bipolar disorder; functioning; perceived social support

BD (bipolar disorder) is a mood disorder characterized by mood swings. The diagnostic criterion for bipolar disorder, previously called manic-depressive disorder, is to have at least one hypomanic or manic attack and at least one major depressive episode, in accordance with the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, 5th edition) criteria.[1] Major depressive episodes are associated with symptoms such as a lack of energy, an inability to enjoy life, and an inability to look at the future with hope. On the other hand, manic attacks are characterized by grandiosity, rapid speech, flight of ideas, irritable mood, and risky behaviors.[2]

Although there is no definitive information about the etiology of bipolar disorder, it is thought that multiple factors are effective. When the research is reviewed, the disruption of chemical balance in the brain, environmental stressors, hereditary factors, childhood traumas, some neurotransmitters, and drugs are considered the most important factors.[2–4] Different data are available on the incidence of bipolar disorder, and it is observed at a rate of 1.0% to 3.3% in the world according to the World Health Organization.[5] Together with its subtypes, BD has a lifetime prevalence of up to 7.8%.[6] The recurrence rate of this disease within two years is around 60%.[7,8] There are var-

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Submitted Date: May 12, 2024 **Revised Date:** May 22, 2025 **Accepted Date:** June 01, 2025 **Available Online Date:** June 30, 2025
Journal of Psychiatric Nursing - Available online at www.phdergi.org

ious approaches to the treatment of bipolar disorder. Usually, psychotherapy, drug therapy, or both are used together. Electroconvulsive therapy (ECT) can also be used in some cases.[9,10]

Patients with bipolar disorder face many problems. These patients have to work and produce to sustain their lives, especially during remission periods, but loss of functionality negatively affects quality of life. In cross-sectional studies, questionnaires assessing social cognition, occupational domain, and autonomy of patients with bipolar disorder have shown that these individuals experience a 40% loss of functionality.[11] In a study conducted in Türkiye on 165 patients diagnosed with bipolar disorder using the BDFQ, it was found that the functionality of the patient group was lower in the areas of participation in social activities, mental functioning, daily activities and hobbies, introversion, feeling of stigmatization, friendship relations, taking initiative, and sexual functioning.[12] Gender, intelligence level, age, socioeconomic level, substance use, number of episodes, number of hospitalizations, and the duration of these hospitalizations are some of the factors affecting functioning in bipolar disorder.[13]

In addition to loss of functioning, another condition affected in patients with bipolar disorder is perceived social support. Patients may under-perceive social support during and after episodes for various reasons. Social support refers to the material, emotional, and instrumental help a person receives from their environment when they are experiencing a problem and are in a state of well-being.[14] To define perceived social support, it is a person's impression of their social ties.[15] Lack of social support has been associated with poor medication adherence and higher levels of stress.[16] One study found that patients with low levels of perceived social support were associated with decreased frequency and duration of episodes, number of inpatient stays, and quality of life.[17,18]

The lack of perceived social support in patients with bipolar disorder may be related to their difficulty in expressing their feelings to other individuals. The concept of alexithymia is included in the literature as "the absence of words for emotions." Alexithymic individuals experience difficulty expressing their emotions behaviorally, emotionally, and physiologically.[19] Whereas debates continue about whether alexithymia is a symptom of a psychiatric disease or a personality trait, it is a known fact that it is related to the symptoms of mental and physical health problems.[20,21] Upon reviewing the literature, a relationship was identified between alexithymia and hopelessness, suicidal thoughts, depression, verbal and physical aggression, hostility, and anger.[22–24] Concerning the relationship between alexithymia and psychiatric disorders, it was determined to be associated with obsessive-compulsive disorder, eating disorders, insecure attachment, alcohol, and internet addiction.[25]

What is presently known on this subject?
- It is known that alexithymia is common in some psychiatric diseases.

What does this article add to the existing knowledge?
- In this study, it was demonstrated that alexithymia negatively affected functioning and perceived social support in patients after a manic episode.

What are the implications for practice?
- This study presents the relationship between alexithymia, functioning, and perceived social support in patients after manic episodes. Interventions for alexithymia may be useful in preventing episodes by maintaining functionality and increasing perceived social support.

When the current literature was reviewed, no study examining the relationship between alexithymia, functioning, and perceived social support in individuals diagnosed with bipolar disorder was found. The present study was conducted to this end.

Research Questions

- How are alexithymia, functioning, and perceived social support levels of post-manic patients?
- Does alexithymia affect functioning in patients after a manic episode?
- Does alexithymia affect the level of perceived social support in patients after a manic episode?

Materials and Method

Type and Design

The current research was conducted as a descriptive study to determine the effect of alexithymia on functioning and perceived social support in individuals diagnosed with bipolar disorder.

Place and Time

This study was conducted between 01.03.2022–31.08.2022 at Erenköy Mental and Neurological Diseases Training and Research Hospital in a clinic where patients with manic episodes were hospitalised.

Population and Sample

The sample size for the study was determined using the GPower 3.1.9 programme (GPower; Universität-Düsseldorf). For a type I error (α=0.05) and target power (1-β=0.95), the minimum sample size required was calculated as 210. No sample selection was made in the study, and all voluntary patients who met the inclusion criteria participated. The pilot study was conducted with 15 people. The study was completed with 267 patients who fully responded to the data collection forms via face-to-face interviews.

Inclusion Criteria

Patients who were hospitalised after a manic episode, were in remission, were literate, aged between 18–65 years, and agreed to participate in the study were included.

Exclusion Criteria

Patients who did not fully answer the forms used in the study or who wanted to withdraw from the study were excluded.

Ethical Considerations

The Ethics Committee of Marmara University Institute of Health Sciences approved this study (18.10.2021–113). The current study adhered to the ethical guidelines outlined in the Declaration of Helsinki. The study objectives were clearly explained to the participants before data collection. Only individuals who voluntarily agreed to take part in the research were included. Participants were assured that all collected data would be kept confidential.

Data Measurement Tools

Personal Information Form

This is a 14-item form prepared by the researcher in line with the literature[8,13] and includes sociodemographic and disease history information of the patients.

20-Item Toronto Alexithymia Scale (TAS-20)

The scale was developed by Bagby et al.,[26] and Güleç and Köse conducted its Turkish validity and reliability study.[27] The TAS-20 is a Likert-type self-report scale consisting of twenty items. Its cut-off score is 61. High scores on each of the subscales and in total indicate a high level of alexithymia. Cronbach's alpha value for the overall scale was reported to be α=0.78 and between 0.57–0.80 for the subscales.[27] In this study, Cronbach's alpha value was determined to be α=0.75.

Bipolar Disorder Functioning Questionnaire (BDFQ)

The BDFQ was prepared by the Mood Disorders Scientific Study Unit of the Psychiatric Association of Türkiye.[28] The scale includes 52 items and 11 subscales. It does not have a cut-off score, and functioning increases with increasing scores. In the validity and reliability study, the Cronbach's alpha value for the overall scale was reported to be α=0.91, and for the subscales between 0.50–0.88.[28] In this study, Cronbach's alpha value was determined to be α=0.91.

Multidimensional Scale of Perceived Social Support (MSPSS)

Eker et al.[29] conducted the Turkish validity and reliability study of the scale developed by Zimet et al.[30] The MSPSS is a 12-item Likert scale. It includes three groups related to the source of social support, each consisting of four items. These groups involve support from "family," "friends," and "significant other." Each item on the scale is rated from Definitely no=1 to Definitely yes=7 using a 7-point Likert scale. A high score demonstrates high perceived social support. In the Turkish validity and reliability study for the scale, Cronbach's alpha coefficient was determined to be 0.83 for the family subscale, 0.84 for the friends subscale, 0.88 for the significant other subscale, and 0.86 for the total scale score.[29] Cronbach's alpha value of the scale was found to be α=0.85 in this study.

Statistical Analysis

The data were analysed statistically using the SPSS (Statistical Programme for Social Sciences) package programme. Frequency and percentage distributions, mean±standard deviation values were utilised in data assessment. Pearson's correlation analysis was conducted to compare the scale scores since it was identified that the scale total scores were suitable for normal distribution. Linear regression analysis was performed to examine the effect of alexithymia on functioning and perceived social support. A mediation model was used to explain the correlation between the scale scores.

Results

Of the participants, 63.67% (n=170) were female, and the total mean age was 37.79±11.50. Concerning the age distribution, 29.96% (n=80) were in the 29–39 age range, and 65.17% (n=174) were single. The income of 43.82% (n=117) of the participants was equal to their expenses. Upon examining the individuals the participants lived with, 29.96% (n=80) lived with their spouse and children. Considering the participants' number of siblings, 38.95% (n=104) had 3–4 siblings. Of the participants, 33.33% (n=89) were the first child in the family, and 54.43% (n=148) stated that they did not have children. Upon examining the number of hospitalisations of the participants in the last two years, it was found that 61.05% (n=163) were hospitalised for the first time. Of the participants, 58.80% (n=157) smoked, consumed alcohol, or used at least one substance. There was no family history of psychiatric disease in 52.81% (n=141) of the participants. A total of 75.28% (n=201) of the participants used psychiatric medications regularly. It was determined that 19.5% (n=52) of the patients included in the study had alexithymia.

The total mean scores of the participants included in the study were as follows: Toronto Alexithymia Scale: 50.22±12.48; Multidimensional Scale of Perceived Social Support: 58.73±17.35; and Bipolar Disorder Functioning Questionnaire: 109.93±17.96 (Table 1).

The results of the correlation analysis conducted to compare the scale scores demonstrated a significant moderate negative correlation between the participants' alexithymia levels and their functioning levels ($r=-0.467$; $p<0.05$). A significant moderate negative correlation was identified between the participants' alexithymia levels and their perceived social support levels ($r=-0.313$; $p<0.05$). There was a moderate positive correlation between the participants' functioning levels and

Table 1. Individual characteristics of the participants (n=267)

Variables	Mean±SD (min-max)	n	%
Age	37.79±11.50 (18–65)		
Gender			
Female		170	63.67
Male		98	36.33
Marital status			
Married		93	34.83
Single		174	65.17
Income level			
Income less than expenses		103	38.58
Income equal to expenses		117	43.82
Income more than expenses		47	17.6
Individuals with whom participants live together at home			
Alone		25	9.36
Spouse only		17	6.37
Spouse and children		80	29.96
Parents		52	19.48
Parents and siblings		61	22.85
Other		32	11.99
Status of having children			
Yes		119	45.57
No		148	54.43
Alexithymia	50.22±12.48 (23–94)		
Functioning	109.93±17.96 (56–149)		
Perceived social support	58.73±17.35 (12–84)		

SD: Standart deviation.

their perceived social support levels (r=0.504; p<0.05). When the functioning and perceived social support levels of patients with and without alexithymia were compared, it was determined that the functioning and perceived social support levels of patients with alexithymia were lower (p<0.05) (Table 2).

According to the linear regression analysis, alexithymia scores of the participants statistically significantly affected the level of functionality (F=73.797, p<0.001). The alexithymia scores of the participants explained 22% of the variance in their functioning scores (R^2=0.218). A 1-point increase in alexithymia score caused a decrease of –0.324 units (95% CI: 0.399–0.250) in functionality score.

According to the linear regression analysis, alexithymia scores of the participants also statistically significantly affected the level of perceived social support (F=28.880, p<0.001). Participants' alexithymia scores explained 10% of the variance in perceived social support scores (R^2=0.098). A 1-point increase in alexithymia score caused a decrease of –0.226 units (95% CI: 0.308–0.143) in perceived social support score.

A significant correlation was identified between alexithymia and functioning (p<0.05). The effect size value of this model is β=-0.6716±0.0782. The alexithymia variable explained 21.78% of the changes in functioning (R=0.4667; R^2=0.2178).

The model investigating the correlation between alexithymia and perceived social support was found to be significant (p<0.05). The effect size value of this model is β=–0.4357±0.0811. The alexithymia variable explained 9.83% of the changes in perceived social support (R=0.3135; R^2=0.0983).

The model investigating the correlation of functioning with perceived social support and alexithymia was determined to be significant (p<0.05). The effect size values of this model were β_c'=-0.4933±0.0747 and β_b=-0.4093±0.0537. Perceived social support and alexithymia together explained 35.87% of the changes in functioning (R=0.5989; R^2=0.3587) (Table 3, Fig. 1).

Discussion

When the sociodemographic characteristics of the sample in this study were analysed, it was found that the mean age was 37.79±11.50, one out of every three patients was married and lived with their spouse and children, one out of every five patients lived with their parents, and two out of every five patients experienced financial hardship. Upon reviewing other studies, it was revealed that 48.8% of the participants in the research by Turkmen et al.[31] experienced financial difficulties, whereas 47.06% of the participants in the study by Yıldız and Ünal had financial difficulties.[32] Although the values were close to each other, it was revealed that the financial situations of the par-

Table 2. Comparison of functioning and perceived social support scores according to participants' alexithymia status (n=267)

	n	%	Functioning (scale total score) Mean±SD	Perceived social support (scale total score) Mean±SD
Alexithymia				
No	215	80.5	113.05±16.46	61.07±16.30
Yes	52	19.5	a97.01±18.31	49.03±18.32
			t=6.163, p<0.001	t=4.659, p<0.001

Table 3. The correlation between the mediator variable "multidimensional scale of perceived socal support" score and the "Toronto alexithymia scale" and "bipolar disorder functioning questionnaire" scores (n=267)

Dependent variable	Independent variable	β	SE	t	p	95% CI	
						Lower	Upper
BDFQ	TAS (c)	-0.6716	0.0782	-8.5905	**0.000**	-0.826	-0.518
			R=0.4667; R^2=0.2178; F=73.7972; p<0.001				
MSPSS	TAS (a)	-0.4357	0.0811	-5.3740	**0.000**	-0.5954	-0.2761
			R=0.3135; R^2=0.0983; F=28.8796; p<0.001				
BDFQ	TAS (c')	-0.4933	0.0747	-6.6047	**0.000**	-0.6404	-0.3462
	MSPSS (b)	-0.4093	0.0537	7.6162	**0.000**	0.3035	0.5151
			R=0.5989; R^2=0.3587; F_2=73.8390; p<0.001				
Total effect		-0.6716	0.0782	-8.5905	**0.000**	-0.826	-0.518
Direct effect		-0.4933	0.0747	-6.6047	**0.000**	-0.6404	-0.3462
Indirect effect		-0.1783	0.04170			-0.2637	-0.1012

SE: Standard error; CI: Confidence interval; BDFQ: Bipolar disorder functioning questionnaire; MSPSS: Multidimensional scale of perceived socal support; TAS: Toronto alexithymia scale.

ticipants in this study were better. It is thought that this may be due to the location of the center where the study was performed and the high socioeconomic status of its surroundings.

The mean total score of the participants in the study was 50.22±12.48 on the Toronto Alexithymia Scale. The mean total scores of the TAS in patients with bipolar disorder were reported as follows in studies similar to the current one: 46.39±10.51 by Ayık et al.,[33] 48.54±13.86 by Ospina et al.,[34] 52.85±12.90 by Kefeli,[35] and 59.41±14.22 by Serafini et al.[36]

Similar to this study, another study reported that patients with BD had more negative childhood experiences compared to healthy controls and more pronounced alexithymic personality traits despite being in remission.[37] Aghaeimazraji et al.[38] found that patients with BD with alexithymia and a history of childhood maltreatment exhibited higher sensory processing patterns other than sensory seeking, and that these indirectly affected the link between sensory seeking, alexithymia, and manic symptoms.

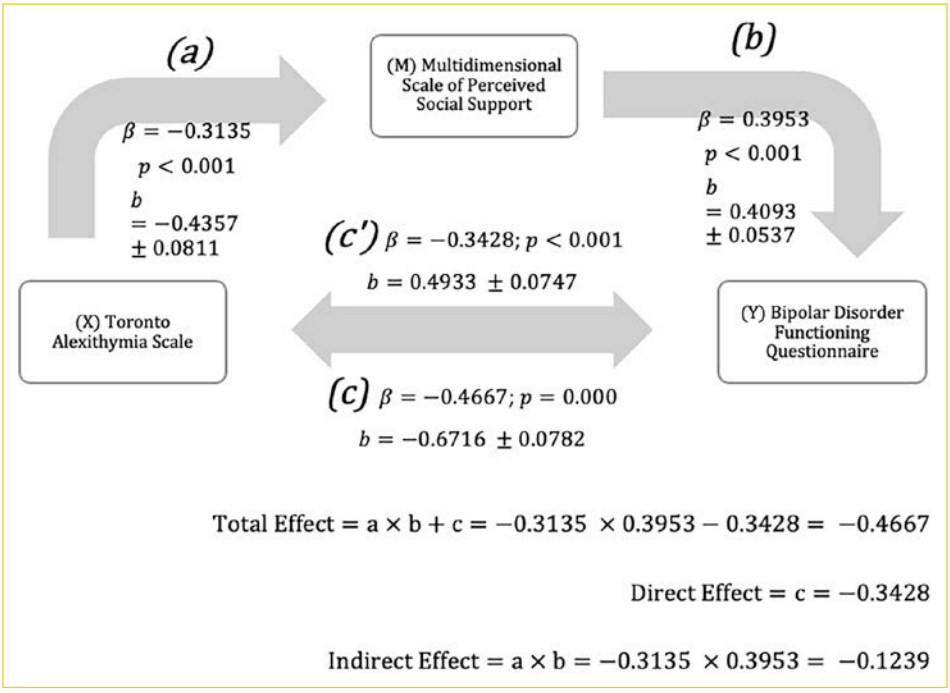

Figure 1. The correlation between the mediator variable "multidimensional scale of perceived social support" score and the "Toronto alexithymia scale" and "bipolar disorder functioning questionnaire" scores.

When the studies conducted with other patient groups on alexithymia levels were examined, it was found that the mean TAS total score was 53.48 in the study by Harmancı et al.[39] Oğuzhanoğlu et al.[40] found 56.62±7.99 and 58.87±10.15, respectively, in patients with social anxiety disorder, and Uslu et al.[41] found 57.30±8.26 in patients diagnosed with obsessive-compulsive disorder. In a meta-analysis study, it was reported that the level of alexithymia was high in schizophrenia patients (35%), and another study showed a strong association between schizophrenia and alexithymia.[42,43] It is also emphasized that individuals with substance use disorders, those diagnosed with PTSD, and both perpetrators and victims of intimate partner violence exhibit high levels of alexithymia.[44–46] A longitudinal, observational study found that alexithymia is a common problem in patients with personality disorders and is associated with mental health difficulties and psychosocial dysfunction, varying according to the type and severity of personality disorder.[47]

The total mean alexithymia score obtained in this study was lower than all the samples mentioned above. Considering that the level of alexithymia increases as the mean score increases, it can be said that patients with bipolar disorder were less alexithymic. It is thought that the reason for this may be that the patients were in the manic phase and extroverted, thus able to express their emotions, even if excessively. Vecchiotti et al.[48] determined the mean TAS total score as 60.14±14.11 in their study with bipolar disorder patients with alcohol use disorder. Bøen et al.[49] found the mean TAS score to be 55.0±12.1 in their study on patients diagnosed with bipolar disorder. Higher levels of alexithymia were reported in these studies. The reason for this is thought to be cultural differences and lifestyle. There are also studies investigating ways to improve alexithymia. In one such study with individuals with bipolar disorder, a virtual reality (VR) cognitive remediation program was found to be effective on alexithymia.[50]

The mean total score of the Bipolar Disorder Functioning Questionnaire of the participants was found to be 109.93±17.96. In the study conducted by Yeloğlu et al.,[51] the mean total BDFQ score was 95.7±17.8. It is thought that the reason for this difference may be the differences in the mean age and marital status of the participants. In another study examining the effect of a physical exercise program on social functioning and alexithymia in patients with bipolar disorder, it was found that there was an improvement in alexithymia both after the study and at the 3-month follow-up evaluation.[52]

This study found the MSPSS total mean score to be 58.73±17.35. Similar to the present study, among studies on patients diagnosed with bipolar disorder, the total mean score on the MSPSS was reported as 53.92±18.71 in the study by Ünal et al.[53] and 42.49±10.25 in the study by Kök and Demir.[53,54] Whereas the results of the current study support the findings of Ünal et al.,[53] they were evaluated as higher than the results from the study by Kök and Demir.[53,54] It is thought that this difference may be affected by variables such as gender and number of hospitalisations. The study by Prabhakaran et al.[55] found the total mean score to be 63.68±13.24. Compared to our study, it is thought that cultural differences may account for the higher level of social support observed.

Upon reviewing studies conducted on other patient groups for comparison, the aforementioned MSPSS score was 48.13±15.74 in the study by Karaarslan and Can Öz,[56] on individuals diagnosed with serious mental illnesses (schizophrenia, bipolar disorder, major depressive disorder, and schizoaffective disorder), 38.3±8.4 in the study by Kazgan Kılıçaslan et al.[57] on patients receiving treatment in the forensic psychiatry ward, and 53.04±12.9 in the study by Bekiroğlu and Demiröz on individuals with severe mental illness receiving service from community mental health centers.[56–58] This study found that the perceived social support level was higher compared to other patient groups. It is known that one reason for this is that functioning improves significantly during the remission period in bipolar disorder, and thus, patients may have greater access to social support resources. Furthermore, since the present study was conducted with individuals in manic episodes, it is estimated that the scores were higher, as patients tend to be more extroverted in this phase.

Within the scope of this study, the relationship between alexithymia, functioning, and perceived social support in patients after manic episodes was investigated; however, no directly comparable findings were found in the literature regarding these relationships.

Nurse Implication

The study revealed that nurses who provide holistic care to individuals diagnosed with bipolar disorder need to work more intensively on social support and functioning in patients with alexithymia. In light of this, psychiatric nurses will be able to achieve positive outcomes more effectively in an evidence-based and focused manner.

Limitations of the Study

Since the findings obtained within the scope of the research are based on self-report scales, they cannot be generalised to the entire population.

Conclusion

The participants' functioning and perceived social support decreased as their alexithymia levels increased.

Ethics Committee Approval: The study was approved by the Marmara University Institute of Health Sciences Ethics Committee (no: 113, date: 18/10/2021).

Informed Consent: Informed consent was obtained from all participants.

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

Funding: The authors declared that this study received no financial support.

Use of AI for Writing Assistance: No AI technologies utilized.

Authorship Contributions: Concept – D.N.H., F.B.B.; Design – F.B.B., D.N.H.; Supervision – F.B.B., D.N.H.; Data collection and/or processing – D.N.H.; Data analysis and/or interpretation – D.N.H., F.B.B.; Literature search – D.N.H.; Writing – D.N.H.; Critical review – F.B.B., D.N.H.

Acknowledgments: We would like to acknowledge the women who kindly agreed to participate in this study.

Peer-review: Externally peer-reviewed.

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