



SHORT COMMUNICATION

Dispositional connectedness and depressive symptoms among help-seeking outpatients: the mediating role of self-concealment



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Abstract Individual differences associated with depression are important for informing clinical practices. Relatively little is known about whether dispositional connectedness—the tendency to value relationships and consider others’ needs—is linked with depressive symptoms. Thus, the present study examined the association between dispositional connectedness and depressive symptoms, including whether self-concealment would mediate this relationship, among 116 mental health outpatients. Bootstrap 99% confidence intervals indicated a significant indirect effect of dispositional connectedness on depressive symptoms, through self-concealment as a mediator. The findings suggest that concerns about maintaining interpersonal bonds may reduce disclosure of vulnerabilities, in turn contributing to depressive symptoms severity.

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Identifying and understanding personality features associated with depressive symptoms remain important goals, in that interventions may be optimized and personalized to suit individual differences and target appropriate mechanisms. One such characteristic is dispositional connectedness, defined as a dispositional tendency to value and prioritize

interpersonal relationships.¹ While affiliation needs are fundamental,² people differ in their orientation toward connecting with others. Individuals who are high in dispositional connectedness experience social relationships as particularly important and tend to be concerned with the needs and emotional responses of others.³ Dispositional connectedness involves an inclination to perceive others as approachable, with an openness to forming bonds with others, and is associated with warmth, openness to feelings, altruism, and empathy.^{3,4}

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Because individuals high in dispositional connectedness are concerned about others and have more stable interpersonal behaviours,⁵ they may be less socially isolated, which may protect against depression. While some findings suggest an inverse association between connectedness and depression,⁶ others have not,¹ leaving open the empirical question of whether dispositional connectedness may either protect against or confer vulnerability to depressive symptoms. The latter possibility may involve connected individuals' assiduous sensitivity to others' feelings and responses. They may--particularly when stressed--worry about disappointing or burdening other people, or appearing inadequate and unworthy, leading to efforts to hide their needs and vulnerabilities from others. Self-concealment, the tendency to avoid revealing aspects of the self that are perceived to be negative,⁷ may in turn contribute to depressive symptoms as the individual feels consigned to struggle with stressors and difficult feelings alone. Thus, although oriented toward relatedness, connected individuals' concern for their impact on others may--at least in the context of experiencing personal difficulties--unwittingly deprive them of social support that could mitigate depression. While research has demonstrated that self-concealment is associated with general psychological distress,⁸ depression,⁹ and suicidality,¹⁰ its potential role as a mechanism linking dispositional connectedness and depressive symptoms is unknown, particularly among clinical samples.

The present study was developed to shed light on the potential association between dispositional connectedness and depressive symptoms and to evaluate self-concealment as a mechanism in this relationship. Understanding whether connectedness and self-concealment may operate together to influence depressive symptom severity can inform case conceptualizations to support targeted psychotherapeutic interventions. Thus, a proposed mediation model was examined whereby dispositional connectedness was hypothesized to have an indirect effect on depressive symptoms, mediated by self-concealment, among treatment-seeking outpatients.

Methods

Participants

A sample of 116 consecutively admitted outpatients was recruited from a publicly-funded mental health clinic in metropolitan Vancouver, Canada. The clinic offers short-term psychotherapy for acute psychological distress, including depressive and anxiety symptoms and major adjustment problems accompanied by social impairment. Clinical screening interviews, conducted by multidisciplinary mental health clinicians (e.g., psychiatric nurses, social workers), were performed to determine service eligibility. Patients were admitted to clinic care based on clinically significant distress, including suspected or subthreshold mental disorder, of at least two-weeks' duration, assessed to be contributing to significant impairment in work, family, or other social role functioning. Psychiatric diagnoses were unavailable since care is guided

by comprehensive case formulation to facilitate personalized treatment.¹¹ Participants in the study were consecutively admitted clinic patients who consented to the study and completed the study assessment measures.

Measures

Dispositional connectedness was assessed using the Connectedness factor of the Depressive Experiences Questionnaire (DEQ).^{1,4,12} Connectedness items, scored from 1 to 7, reflect motives and efforts to maintain and enhance social bonds (sample item: "After a fight with a friend, I must make amends as soon as possible"). The present study employed nine of the 10 DEQ Connectedness items, due to poor performance of the single reverse-scored item. Higher mean Connectedness scores indicate stronger dispositional tendencies to prioritize social relationships.

Self-concealment was assessed using the Hiding the Self scale from the Brief Pathological Narcissism Inventory.^{13,14} Hiding the Self is comprised of four items, scored from 0 to 5, that refer to the tendency to hide one's needs and vulnerabilities from others (sample item: "It's hard to show others the weaknesses I feel inside"). Higher scores, the mean of items, indicate a greater degree of self-concealment tendencies.

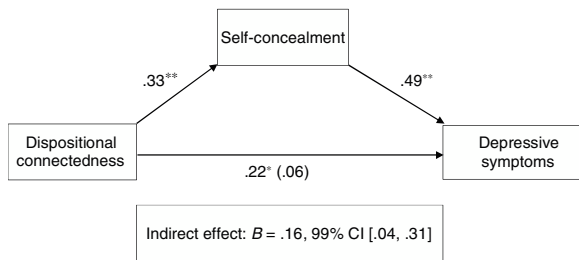
Depressive symptoms were assessed using the Patient Health Questionnaire-9 (PHQ-9),¹⁵ a well validated, nine-item scale reflecting symptoms of depression reported over the past two weeks; higher scores reflect greater depressive severity.

Analyses

Analyses were conducted using SPSS 25 including PROCESS 3.0.¹⁶ Zero-order correlations and reliability coefficients were computed among study variables, and preliminary analyses evaluated associations with age and gender as potential confounders. Ordinary least squares regression analyses (using the product approach to mediation)^{16,17} tested the hypothesized simple mediation model. Prior to conducting the mediation analysis, the potential confounding effects of demographic variables (age, gender, ethnic minority status, being single, unemployment, lack of post-secondary education) were tested using zero-order and point-biserial correlations in relation to all primary study variables, in line with suggested assumptions concerning mediation analysis.¹⁷ The mediation model was tested using the PROCESS macro (model 4), with dispositional connectedness entered as the independent variable, self-concealment as the mediator, and depressive symptoms as the dependent variable. Variables were standardized to facilitate interpretation. A bootstrap 99% confidence interval (CI), sampled 10,000 times, was used to examine the indirect effect, with significant mediation indicated by the absence of zero in the CI. The 99% CI provides a conservative test of the point estimate of indirect effects differing from zero, while the bootstrap method mitigates concerns regarding violations of normality assumptions in the products of path coefficients.¹⁶

Table 1 Descriptive statistics, internal consistency coefficients, and zero-order correlations for primary study variables; N = 116.

		<i>M (SD)</i>		95% CI	α	1	2
1.	Dispositional connectedness	5.40	(.86)	5.24,	5.56	.70	
2.	Self-concealment	3.31	(1.29)	3.08,	3.55	.81	.33**
3.	Depressive symptoms	16.66	(6.68)	15.43,	17.89	.89	.22* .51**

* $p < .05$.** $p < .01$.**Figure 1** xxx.

Results

The majority of patients were female, 69.8%, and Caucasian, 76.7%; their average age was 36.4 ± 11.8 years old.¹ More than half, 57.8%, had some post-secondary education, and 56% had active daytime roles (employment, education, or parenting); 30.2% were unemployed and 12.1% were receiving disability benefits. The majority, 57.8% were not in committed partner relationships. Half the sample, 51.7%, reported previous mental health treatment, including 23.3% previously hospitalized for inpatient psychiatric care. A majority of patients, 64.6%, also reported having previously made a suicide attempt.

The majority of the sample, 81.9%, indicated PHQ-9 scores above the cut-off (>9) for clinical depression, including 17.2% in the moderate range (10–14), 23.3% in the moderately severe range, and 41.4% in the severe range. Half the sample, 50%, responded affirmatively to item 9, indicating thoughts of self-harm or suicide over the preceding two weeks. As shown in Table 1, dispositional connectedness was positively associated with depressive symptoms; self-concealment was positively associated with both connectedness and depressive symptoms. Analyses regarding potential sociodemographic confounders (age, gender, ethnic minority status, being single, unemployment, lack of post-secondary education), in relation to each primary study variable, were all non-significant. Thus, the mediation analysis proceeded using the primary study variables.

Standardized coefficients for the regression model testing mediation are presented in Fig. 1. As indicated by an absence of zero within the lower and upper bounds of the bootstrap 99% CI, self-concealment significantly media-

ted the relationship between dispositional connectedness and depressive symptoms. Indeed, a one *SD* unit increase in dispositional connectedness corresponded to a .16 *SD* unit increase in depressive symptoms through the mediating effect of self-concealment.

Discussion

The present study indicated that dispositional connectedness was significantly associated with depressive symptoms, and that this relation was statistically mediated by self-concealment. Thus, among outpatients seeking mental health care, higher connectedness was linked with stronger self-concealment tendencies, which in turn linked with depressive symptom severity. While dispositional connectedness may have its advantages, particularly given the importance of interpersonal relationships for a range of health and wellbeing outcomes, our findings suggest a downside in that it may involve reduced disclosure of personal stressors and vulnerabilities to others. In this way, concern and sensitivity regarding others' feelings may lead individuals high in dispositional connectedness to forgo opportunities to communicate negative feelings, thereby depriving themselves of social support which may fuel depressive severity. Sensitized to others' needs, these individuals may assume that the expression of their own feelings might be unwelcome. This could include perfectionistic self-presentational concerns that they will be rejected by others upon revealing perceived imperfections.¹⁸ Self-concealment in the context of connectedness may also reflect pathogenic beliefs about causing detriment to others—a form of anticipatory interpersonal guilt—in that disclosure of personal difficulties would be perceived as burdensome or overwhelming to others.¹⁹ Despite an overarching motive to preserve interpersonal connections, the self-concealment that follows from these concerns may result in maladaptive social isolation which—especially in the context of personal stressors—engenders and exacerbates symptoms of depression.

One potential implication of the present finding is for clinicians to inquire about and assess dispositional connectedness and self-concealment tendencies when working with patients suffering from depression. Clinical approaches may need to address underlying relational needs and accompanying self-presentation concerns that inhibit disclosure and paradoxically fuel social disconnection.²⁰ Interventions may also need to target guilt-based fears of burdening, damaging, or overwhelming others through the expression of perceived negative emotions or aspects of the self.^{19,21} Importantly, further research is needed to understand the

¹ Missing data for age and gender were observed for 8 and 4 participants, respectively. Since analyses conducted with and without the inclusion of these participants revealed negligible differences, their data were retained for the study.

nature and function of self-concealment in the context of dispositional connectedness. The therapeutic relationship itself may allow for beliefs underlying self-concealment and connectedness concerns to be tested and disconfirmed.²¹ For example, a patient could tentatively reveal his or her vulnerabilities while observing the degree to which the therapist is accepting, before subsequently becoming increasingly self-revelatory as the security of the therapist-patient connection is made clear. Future research should explore clinical possibilities regarding dispositional connectedness, and whether intervening to mitigate self-concealment might improve depression recovery.

Several limitations in the present study must be noted. First, all measurement was self-reported and collected at a single time point, raising the possibility of response bias and shared method variance. Moreover, while cross-sectional data can usefully model mediational relationships, inferences regarding causal relationships across time are necessarily limited by this design. Second, this convenience sample was recruited from one outpatient clinic, and diagnostic information was unavailable. Thus, the influence of particular psychiatric conditions (e.g., social anxiety disorder) as having direct, indirect, or moderating effects on the findings is unknown. This limits the generalizability of the present findings to other clinical populations. Future research regarding the roles of connectedness and self-concealment in depression would do well to utilize prospective designs and more comprehensive assessment inclusive of psychiatric diagnoses.

Conclusion

The present findings provide preliminary indication of dispositional connectedness in conferring vulnerability to depression, through the mechanism of increased self-concealment. This may encourage clinicians to focus on some patients' concerns about their impact on others that constrict self-disclosure, and the possibility of modifying such tendencies through therapeutic intervention and relationship.

Ethical considerations

This study was conducted in accordance with the Declaration of Helsinki; informed consent was obtained for all research participants, institutional review board approval was obtained for the study, and all ethical procedures were performed.

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Declaration of interest

None.

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