

CHAPTER TEN

The Importance of Social Connectedness for Self-regulation and Emotional Wellbeing: Expanding the Definition of the Construct

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ABSTRACT

At the time of writing, we remain in the midst of the Covid-19 pandemic. During this time, the enactment of social distancing policies needed to curb the spread of disease has also heightened attention to the emotional costs of isolation on psychosocial development and mental health. In this chapter, we examine the construct of social connectedness (the ability to relate to others) and discuss its association with emotional intelligence and regulation. We present data from a cross-sectional survey of 133 undergraduate students, and a structural equation model in which social connectedness mediates the effect of the maternal relationship in childhood on alexithymia and experiential avoidance in young adulthood. A latent factor of social connectedness was extracted from measures of attachment security and feelings of understanding from others. The maternal relationship was assessed by retrospective ratings of maternal warmth, hostility, and neglect. Social connectedness was predicted by the maternal relationship (B = .31) and in turn, was predictive of alexithymia (B = -.82) and experiential avoidance (B = -.72). The ability to relate to others is highly associated with self-regulation of one's emotions. Interventions to improve emotion management in young adults may also need to repair issues of social connectedness in this group.

Keywords: Attachment Security; Alexithymia, Emotional Intelligence, Emotional Regulation, Emotional Well-being, Experiential Avoidance, Early Maternal Relationship, Social Connectedness, Symbolic Interactionism, Young Adults.



INTRODUCTION

At the time of writing, the Covid-19 pandemic remains a threat to public health, as more infectious variants continue to evolve and spread around the world (Duong, 2021). To combat high rates of infection, many governments have enacted social distancing policies and limited travel across borders to reduce physical interactions between people on a scale unseen since the Spanish flu pandemic over a century ago (Martini et al., 2019). Many in-person interactions have been moved to virtual settings through the mass adoption of video conferencing technologies, social media, and online shopping. Where in-person interactions have remained necessary, social distancing, face coverings and handwashing now constitute new social rituals in which human presence has become associated with uncleanliness and the threat of mortality. Paradoxically, these quarantines and isolation periods have also renewed the public's awareness of social connectedness as a nutriment for health and well-being through the experience of its absence on a mass scale (Loades et al., 2020; Robb et al., 2020; Rosenberg et al., 2021). The closure of schools has also brought attention to the value of peer relationships for social development in children, and the stay-at-home orders and gathering size restrictions have made obvious the link between social isolation and loneliness, and the deterioration of mental health (Killgore et al., 2020; Palgi et al., 2020).

In this chapter, we examine the construct of social connectedness, which refers to one's ability to relate to others, and we discuss its association with emotional intelligence and regulation. We present data from a cross-sectional survey of 133 undergraduate students, and a structural equation model in which social connectedness mediates the effect of early maternal care on alexithymia and experiential avoidance in young adulthood.



Social Connectedness

An unavoidable lesson of the Covid-19 pandemic is that isolation can come at a tremendous social cost. Since the onset of the pandemic, Google has seen marked increases for the search terms of boredom, loneliness, worry, and sadness (Brodeur et al., 2021), and this has corresponded to a global increase in the prevalence of depression, anxiety, distress, and insomnia (Wu et al., 2021). Vulnerable populations have been at increased risk of deaths of despair, which include drug-related harm and mortality (Rodda et al., 2020). Ironically, and sadly, older adults may be at increased risk of dying by suicide (Sheffler et al., 2021), while also at higher risk of death from infection with the virus (Powell et al., 2020). In fact, for young and old adults alike, perceptions of being unwanted and of being a burden to others are key explanatory factors for increased suicide risk (Gratz et al., 2020; Sheffler et al., 2021). These factors are exacerbated by a society-in-pandemic characterised by mass isolation and larger barriers to accessing services that are mediated by social connectedness (e.g., social, medical, mental health).

Social connectedness has been operationalized and measured in several ways across the social sciences and has included the size and integration of one's social networks (Bailey et al., 2018; Cornwell et al., 2008) and perceptions of belongingness, sociability, and social identity (Lee et al., 1995; Van Bel et al., 2009). Common across studies is that social connectedness is understood as the ability of individuals to relate to others and to establish close relationships that can provide the material and psychological benefits associated with social support; it is often juxtaposed against the experience of loneliness and social isolation (Hare-Duke et al., 2019).



Social connectedness has been identified as a determinant of physical and mental health over time (e.g., Gun III et al., 2018; Larrabee Sonderlund et al., 2019). Early positive relationships to school, family and peers during development are protective factors against depression, anxiety, self-injury, conduct disorder, and other risky behaviours (Foster et al., 2017; MacNamara et al., 2017). The processes associated with these protective effects are complex and multileveled, involving structural, relational, and individual factors. At the individual level, these may include traditional explanations appealing to the satisfaction of psychological needs for connection and understanding by others (Deci & Ryan, 2017), as well as more modern accounts emphasizing neural maturation in mentalization (i.e., the ability to understand another's beliefs and behaviours) and other executive functions as expressed in the context of social relationships (Fonagy & Target, 2006; Jain & Fonagy 2020; Lamblin et al., 2017). Characterized as a diminished ability to recognize mental states in others, autism spectrum disorder may be regarded as a developmental disorder of social connectedness (Helt et al., 2019; Seghatol-Eslami et al., 2020).

The presence or absence of social connectedness may compound over the life course to either protect against or aggravate medical illness. In longitudinal research, loneliness has been found to exacerbate physical symptoms and chronic conditions in older adults more so than in younger adults (Choi et al., 2018), and social isolation may have a detrimental effect on blood pressure comparable to the clinical effect of diabetes in old age (Yang et al., 2016). In a systematic review of studies on the relationship between social disconnection and diagnosis of cardiometabolic diseases by Larrabee Sonderlund et al. (2019), 13 of 20 found that the relational processes associated with social connectedness can buffer against the physiological effects of chronic stress to prevent illnesses such as coronary heart disease and type 2 diabetes.



In patients coping with advanced cancer, we had proposed that social connectedness may help to explain differences in adaptation to the end-of-life (Lo, 2018). From an Eriksonian perspective, the ability to achieve a sense of life meaning and death acceptance may rely in part on having attained earlier developmental milestones representing a life trajectory of social connectedness (Lo, 2018). These milestones can include the experience of generativity, the capacity to care for and be intimate with others, and acceptance and awareness of self—with earlier accomplishments serving to scaffold the positive relational experiences needed for a sense of life completion. This developmental perspective aligns with the tripartite model of terror management theory, which proposes that attachment security, along with self-worth and worldviews, are primary defenses against mortality salience (Hart et al., 2005).

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Consistent with these ideas, we have found that greater social connectedness is protective against death anxiety (An et al., 2018) and predictive of spiritual well-being at the end of life (Lo et al., 2011). We have also found that family members with greater capacity for social connectedness may form more effective relational systems to support loved ones in this circumstance. In caregivers of patients with advanced cancer, those who had greater social connectedness were better able to access instrumental and emotional support from their social networks, such that couples with greater connectedness had less existential distress and better quality of life (Lo et al., 2013).

In these studies, we operationalised the construct of social connectedness in a novel manner by extracting a latent factor from measures of attachment security (Lo et al., 2009) and perceptions of social support (Sherbourne & Stewart, 1991), combining the internal working models of relationship from developmental psychology (Bowlby, 2008) with social psychological constructs

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(Lakey & Cohen, 2000). This operationalisation of social connectedness may offer a useful conceptual change from the consideration of attachment security alone because the experience of connection is recognised as a function of stabilised relational tendencies and expectations (Zayas et al., 2011), and of responses to new experiences with others in ongoing social interaction (Belsky, 2002). This makes explicit the clinical insight that attachment organisation can be affected by the positive relational experiences provided by psychotherapy, with the therapist as a secure base (Miller & Klockner, 2019; Mitchell, 2013). This latent factor may be perceived as more amenable to clinical intervention and change.

In the present chapter, we were interested in tracing some of the social psychological origins of social connectedness and expanding our operationalisation of the construct to apply to individuals in young adulthood. For young adults entering university, one of the major tasks of psychosocial development is to navigate the need for intimacy in romantic relationships and to explore social networks beyond the family (Marcia, 2002). To assess social connectedness in an undergraduate sample, we constructed a latent factor from directly observed measures of attachment security to romantic partners, and from feelings of understanding/misunderstanding during social interactions.

Studies have shown that securely attached children may fare better with respect to later emotional regulation and social cognition, although these outcomes can also be affected by intermediary experiences (Fearon, 2017). We expected the maternal relationship during childhood would be associated with social connectedness in young adulthood, and that social connectedness (separate from the early attachment environment) would mediate the maternal relationship and later affective outcomes. The next sections expand the theoretical discussion of the role of social



connectedness in emotional well-being.

Emotional Well-being

Psychological life is emotional life, and much of emotional life centres on our social experiences of self in relation to others. For a theoretical perspective, we will now revisit the ideas of *symbolic interactionism*, which offer a non-mechanistic treatment of the social process by which self-understanding and understanding of others may co-develop over time (Blumer, 1969; Carter & Fuller, 2015; Mead, 1934). According to symbolic interactionism theory, objects of consciousness are imbued with symbolic meanings that are not only cognitive, but emotional in nature. Our perceptions of others and of ourselves as social objects are saturated with symbolic and emotional meanings. When we work, play, compete, and romance, we interact with one another based on our interpretations of the gestures and actions of others as they occur in real-time. We form a sense of self, including our feelings of self-worth, based on the reflected meanings that others communicate when they interact with us, as if seeing it through a looking glass (Cooley, 1983/2011).

A feature of this perspective is the idea of a "meaning space" that lies between individuals and is constructed by them, like a virtual whiteboard containing the shared symbols and emotional significances that have been established over the course of their relationships (Clark, 2015). Joint negotiation of meaning happens in this space, as participants mutually write and rewrite the shared representations that will inform their present and future interactions, sometimes jostling in disagreement or miscommunication (Matusov, 1996). Social interactions are laden with emotion in terms of wants, needs, goals, and plans—whose pursuit in society requires the cooperation of



others. As individuals pursue their agendas and seek to persuade others to their causes, at stake in everyday engagements are our social statuses and perceptions of value to others—and their statuses and value to us. Learning to be with others means learning to manage individual and communal feelings that arise in response to our interactions with them, perhaps especially when these do not align with personal desires (Matusov, 1996).

Part of the development of social nuance and capability involves being able to recognize, communicate, and cultivate the emotion-laden perceptions of self and others in this intersubjective space (Mitchell, 2014). Consider, for example, someone who is trying to impress a group of friends so that they might date someone in the group. Or a professional trying to recover their reputation after feeling defamed. Or a grandparent trying to cajole their grandchild to share their fries. Or a teenager trying to convince a parent to buy them the newest smartphone. These mundane scenarios entail complex, yet also seemingly effortless evaluations about our relationships and our capacity to connect with and sway others based on our perceptions of their feelings toward us, recognition of our own communicated emotional states, and our working models concerning the emotional effects of our strategic moves to shift relationships toward joint aims, developed over the life course (Gopnik & Wellman, 1992; Shaver et al., 1996).

Facility with social relationships may both require and produce emotional intelligence as an outcome. Relating well with people requires empathy (or at least its simulation) and the ability to manage and express feelings toward others in socially acceptable ways. Such intelligence is needed to become close with others and to gain the benefit of their support and understanding. Without regulation, one may also become overwhelmed by the effects of others' emotional states. Further, without self-awareness of one's own emotions, the individual may be unable to distinguish



between self and other, and therefore unable to respond prosocially (Bošnjaković & Radionov, 2018).

In the present study, alexithymia and experiential avoidance were used to assess emotional intelligence and regulation. Alexithymia is a multidimensional personality trait characterised by difficulty identifying or describing emotions, and an externally-oriented thinking style which avoids consideration of internal states (Preece et al., 2020; Starita & di Pellegrino, 2018). Alexithymia is a risk factor for several psychopathologies, including depression and anxiety (Hemming et al., 2019; Paniccia et al., 2018), eating disorders (Derks et al., 2017), substance abuse (Cruise & Becerra, 2018), and self-harm (Norman et al., 2020). Among those with autistic traits, it may compound the risk of suicidality (Costa et al., 2020) and partially explain their heightened prevalence of disordered eating behaviour, which functions to maladaptively regulate feelings (Vuillier et al., 2020). Among both psychiatric and non-psychiatric populations alike, alexithymia is associated with diminished psychosocial functioning (Ospina et al., 2019; Tesio et al., 2018) and higher levels of aggression (Hemming et al., 2019).

Experiential avoidance is a trait-based generalized orientation characterised by aversity to negative internal experiences (Kirk et al., 2019), including thoughts, emotions, and physiological sensations (Spinhoven et al., 2017), resulting in rigid behaviours that seek to avoid, escape, or alter unwanted internal states (Levin et al., 2018). The negative mental health effects of experiential avoidance are well-documented in the existing literature—for example, there is a positive association between experiential avoidance and depression (Bardeen & Fergus, 2016). Experiential avoidance predicts solitary and more frequent alcohol consumption (Luoma et al., 2020), as well as the onset, maintenance, and relapse of anxiety disorders (Spinhoven et al., 2017).



Recent studies have validated the significant role experiential avoidance plays in maintaining posttraumatic stress disorder (Henschel et al., 2020), and demonstrated a reciprocal, co-mediating relationship between experiential avoidance and social anxiety disorder, which is a proxy for social disconnection (Asher et al., 2021).

In this chapter, we report findings from a survey of undergraduate students concerning their early maternal relationship, indicators of social connectedness, and measures of emotional intelligence and regulation. We tested the mediating value of social connectedness between early relational experiences and subsequent emotional well-being, as measured by alexithymia and experiential avoidance (see Figure 1). We expected that social connectedness would be positively associated with memories of warmth in maternal care and negatively associated with alexithymia and experiential avoidance.

METHOD

Participants and Procedure

This study was approved by the University of Toronto Research Ethics Board. We recruited 133 undergraduate psychology students who participated for course credit. After providing written informed consent, participants completed self-report measures. Their mean age was 19.6 years (*SD* = 3.56), and 70% (93/133) were female. Concerning ethnicity, 35% (47/133) were of East or Southeast Asian descent, 29% (38/133) were of European descent, 9% (12/133) were of South Asian descent, and 27% (36/133) were of other or mixed ethnicities.

Measures

For ease of administration and scale comparison, all items were rated on 7-point Likert



scales, ranging from 1 to 7. Participants were asked about their recollections of the maternal relationship during middle childhood using the 29-item *Parental Acceptance and Rejection Questionnaire/Control Scale* (PARQ/Control Maternal Short Form; Rohner & Khaleque, 2005). They rated each item from 1 (Almost Never True) to 7 (Almost Always True). We used 3 subscales to assess maternal warmth (e.g., "made me feel wanted and needed"), hostility and aggression (e.g., "punished me severely when she was angry"), and neglect and indifference (e.g., "paid no attention to me").

Feeling understood by others was assessed using the 24-item *Feelings of Understanding-Misunderstanding Scale* (FUMS; Cahn, 1983). Individuals were asked about how they generally feel after social interactions and to rate their experience of several feelings that are relevant when people try to make themselves understood by others. Participants rated their responses from 1 (Very Little) to 7 (Very Much). The feelings of understanding included feeling good, accepted, or satisfied, and feelings of misunderstanding included feeling annoyed, insecure, or sad. The measure produces a score representing the tendency to feel understood by others, calculated by subtracting the average of the misunderstanding items from that of the understanding items.

Attachment anxiety and avoidance were assessed with the 36-item *Revised Experiences in Close Relationships Scale* (ECR-R; Fraley, Waller, & Brennan, 2000). Participants rated each item from 1 (Strongly Disagree) to 7 (Strong Disagree). Attachment anxiety refers to fear of abandonment (e.g., "I often worry that my partner doesn't really love me") and attachment avoidance refers to defensive independence (e.g., "I prefer not to show a partner how I feel deep down").

Alexithymia was assessed with the 20-item Toronto Alexithymia Scale (TAS-20; Bagby,



Parker, & Taylor, 1994). Participants rated their responses from 1 (Strongly Disagree) to 7 (Strong Disagree). The TAS-20 has 3 subscales: Difficulty identifying one's feelings (e.g., "I am often confused by what emotion I am experiencing"), difficulty describing one's feelings (e.g., "it is difficult for me to find the right words for my feelings"), and externally-oriented thinking (e.g., "looking for hidden meanings in movies or plays distracts from their enjoyment"). Experiential avoidance was measured by the 10-item *Acceptance and Action Questionnaire-II* (AAQ-II; Bond et al., 2011) (e.g., "my painful memories prevent me from having a fulfilling life"). Participants rated their responses from 1 (Never True) to 7 (Always True).

Statistical Analysis

We first used structural equation modeling (SEM) to calculate a measurement model to examine the feasibility of extracting latent factors of maternal relationship, social connectedness, and alexithymia, with experiential avoidance specified as a manifest variable. Maternal relationship was measured by maternal warmth, hostility and aggression, and indifference and neglect. Social connectedness was measured with feelings of understanding by others, attachment anxiety, and attachment avoidance. Alexithymia was measured by difficulty identifying and describing feelings, and externally-oriented thinking.

We report the Standardized Root Mean Square Residual (SRMSR), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), Akaike Information Criterion (AIC), and chi-square statistic. The identification of a single set of cut-off values to accept or reject models has remained elusive (Chen et al., 2008; Niemand & Mai, 2018). Although thresholds have risen over time, contemporary thinking has also allowed for an



easing of their application in settings where a dichotomous decision about good or bad models is unnecessary (Kline, 2016; Morrison et al., 2017). In part, this is because goodness of fit does not always indicate model validity (Marsh et al., 2004) and different thresholds may apply in different research contexts and stages of inquiry (Bollen, 1989). Model evaluation still rests on its interpretability and theoretical relevance to the researcher (Bollen, 1989).

In this exploratory study, we used a graduated approach in which cut-off values that have been discussed in the literature were divided into tougher and easier benchmarks (Hooper et al., 2008; Kenny, 2020; Kline, 2016; Marsh et al. 2004). We interpreted good fit as indicated by SRMSR < .08, RMSEA < .05, CFI > .95, and NNFI > .95. Acceptable fit was indicated by .08 < SRMSR < .10, .05 < RMSEA < .08, .95 > CFI > .90, and .95 > NNFI > .90. A chi-square difference test was used to compare fit between the nested models. For model comparisons, a lower AIC is preferable.

With a viable measurement model, we then specified directional pathways between factors, and removed non-significant pathways to arrive at a final model. We controlled for age and gender in preliminary analyses, but neither covariate showed significant pathways and these factors were therefore dropped.

RESULTS

See Table 1 for descriptive statistics on our indicator variables, and Table 2 for the correlation matrix. We considered the measurement model depicted in Figure 2 to have an acceptable enough fit to move forward, although the RMSEA was larger than desirable and the NNFI was closer to the lower boundary for adequacy, SRMSR = .0517, RMSEA = .0872, CFI = .942, NNFI = .913, AIC = 110.10, $\chi^2_{diff}(30) = 60.10$. Most indicator variables loaded highly (i.e.,



 \geq .60) on their latent factors, except for the externally-oriented thinking subscale which loaded .30 on alexithymia, a low value consistent with the prior psychometrics of this instrument (Bagby et al., 2014). We left this subscale in the model to keep the alexithymia construct intact. The significant intercorrelations between factors were in the expected directions (see Figure 2 for values).

We specified directional pathways in which social connectedness mediates the effect of maternal relationship on alexithymia and experiential avoidance (see Figure 1). In this scenario, the saturated model depicted in Figure 1 has the identical fit characteristics as the measurement model. The pathways between maternal relationship and alexithymia, and between alexithymia and experiential avoidance were non-significant and were dropped, leaving the final model shown in Figure 3. This model had an acceptable fit, SRMSR = .0530, RMSEA = .0847, CFI = .942, NNFI = .918, AIC =108.29, $\chi^2_{diff}(32) = 62.29$. This final model did not differ in fit from the saturated model, $\chi^2_{diff}(2) = 2.19$, meaning that no explanatory power was lost with the two non-significant pathways removed. The lower AIC of the final model also recommended it over the saturated model.

Social connectedness was significantly predicted by the maternal relationship, B = .31, p = .01, and in turn, was predictive of alexithymia, B = -.82, p < .0001 and experiential avoidance, B = -.72, p < .0001. There remained a small direct effect of maternal care on experiential avoidance, B = -.18, p = .01. Maternal relationship explained 10% of the variance in social connectedness, social connectedness explained 67% of the variance in alexithymia, and both maternal relationship and social connectedness together explained 72% of the variance in experiential avoidance.



DISCUSSION

In a sample of 133 undergraduate students, we extracted a latent factor of social connectedness out of indicators of attachment security and feelings of understanding from others, generalizing this construct beyond the (mostly elderly) advanced cancer population in which we first tested this approach (Lo et al., 2011; 2013; An et al., 2018).

As expected, we found that a latent factor of the early maternal relationship, as assessed by self-reported retrospective ratings of maternal warmth, hostility, and neglect in childhood, was modestly associated with social connectedness in young adulthood. The magnitude of this relationship is consistent with prior findings in the literature based on larger cross-sectional survey studies (cf. Zayas et al., 2011). In a sample of 218 adults, Rodrigues (2016) found significant bivariate correlations ranging from 0.16 to 0.21 between memories of the early maternal or paternal relationship and adult attachment. In a sample of 95 adults, Bourne et al. (2014) found significant bivariate correlations of 0.24 and 0.29 involving early paternal care and adult attachment. Our own bivariate correlations between the maternal subscales and attachment dimensions ranged from 0.19 to 0.24. Although social relatedness in young adulthood (and to a lesser extent, experiential avoidance) may continue to be influenced by the early care environment, this association may attenuate as individuals grow more autonomous with age and establish relationships beyond the family, which may lead to changes in their perceptions of others and of being understood.

We found strong associations between social connectedness and alexithymia and experiential avoidance, such that they may form a network or complex of psychosocial functioning, consistent with symbolic interactionist principles and current perspectives on the social developmental roots of emotional regulation and psychological mindedness (Bourne et al.,



2014; Mikulincer & Shaver, 2019; Rodrigues, 2016;). In extreme cases, this triad of social disconnection, poor emotional insight, and sensitivity to negative affect may entail mutual feedbacks and be self-sustaining in the absence of clinical intervention. The lack of positive social relationships and feelings of acceptance may exacerbate difficulties in emotional awareness and demotivate the communication of feelings that might otherwise bring connection or intimacy at the risk of social vulnerability and self-change (Nguyen, 2020).

Conversely, the promotion of emotional intelligence and regulation may involve broadening people's positive relational experiences and improving their social cognition (Masi et al., 2011), mirroring the developmental trajectory for social connectedness that should have occurred earlier in life. This may differ from approaches that directly target emotional processes to improve social connectedness and mental health outcomes (Taylor et al., 2020). Prior to the pandemic, there was a steady growth of social connectedness interventions to improve health and well-being in older adults (O'Rourke et al., 2018), with implementations evident in other diverse groups, including homeless youth (McCay et al., 2011) and mental health professionals at risk of burnout (Orteaga et al., 2019). Their progress may require more comprehensive conceptual frameworks that can identify the major components and processes that should be addressed (Hare-Duke et al., 2021).

Outcomes of randomized clinical trials (RCTs) and practice-based research have validated the effectiveness of psychoanalytic (or psychodynamic) treatments for many psychiatric diagnoses, including those relating to depression, anxiety, and personality disorders (Fonagy, 2015; Jankowski et al., 2019; Shedler, 2010). Much of contemporary relational psychodynamic psychotherapy emphasizes relational repair, including with respect to attachment organization



(Shedler, 2010). Such treatments, which need not necessarily be long-term to be effective (Shedler, 2010), seem particularly suitable for undergraduate students (and others) who could benefit from corrective relational experiences in support of positive change in their lives. While it is a common trope that evidence-based treatments are largely synonymous with cognitive-based modalities, university counselling services would serve students well by acknowledging the empirical evidence of relationally-oriented (connection-based) psychoanalytic treatment to target social isolation, depressive symptoms, and attachment-based problems.

The limitations of the present study include its cross-sectional nature, reliance on selfreported retrospective recall of early maternal care, and the lack of assessment of paternal care. The lack of longitudinal data makes causal inferences difficult, and the lack of divergent predictors for each of social connectedness and the emotion outcomes meant it was not possible to examine feedback loops between these closely connected constructs. Future research, especially with longitudinal designs, is needed to further substantiate the model presented here.

CONCLUSION

A construct of social connectedness may be extracted from measures of attachment security and perceptions of the supportiveness or acceptance of others. Such indicators may be widely available in existing datasets and researchers may find it useful to conduct analyses combining these measures into a whole. Clinicians may also find that a conceptual shift to improving social connectedness in their patients may allow for new ways of intervening to improve mental health outcomes that are rooted in seemingly intractable relational tendencies.



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Table 1

Descriptive statistics (n = 133)

Variable	М	SD	Min	Max
Maternal warmth	5.31	1.42	1.38	7
Hostility and aggression	2.19	1.36	1	6.50
Neglect and indifference	2.30	1.20	1	6.33
Feeling understood by others	1.77	1.70	-3.50	5.13
Attachment anxiety	3.28	1.04	1	6
Attachment avoidance	3.27	1.07	1	6.17
Difficulty identifying feelings	2.92	1.22	1	6.14
Difficulty describing feelings	3.60	1.30	1.20	6.60
Externally-oriented thinking	2.90	0.83	1.38	5
Experiential avoidance	3.27	1.15	1.2	6.5



Table 2

Correlation	matrix	(n =	133)
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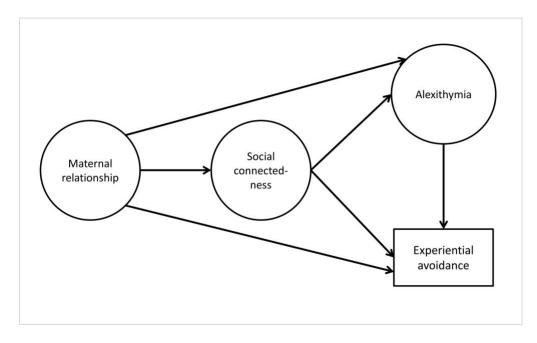
	MHA	MNI	FUMTOT	ANXTY	AVOID	DIF	DDF	EOT	EXPAVO
MWA	-0.72 <.0001	-0.77 <.0001	0.18 .03	-0.19 .03	-0.24 .006	-0.11 .21	-0.11 .21	-0.16 .07	-0.40 <.0001
MHA	1	0.64 <.0001	-0.18 .04	0.23 .007	0.22 .01	0.23 .007	0.07 .43	-0.03 .72	0.37 <.0001
MNI		1	-0.11 .20	0.19 .03	0.19 .03	0.11 .21	0.16 .07	0.12 .16	0.27 .002
FUMTOT			1	-0.38 <.0001	-0.38 <.0001	-0.39 <.0001	-0.40 <.0001	-0.13 .15	-0.53 <.0001
ANXTY				1	0.51 <.0001	0.43 <.0001	0.30 .0004	0.11 .20	0.57 <.0001
AVOID					1	0.34 <.0001	0.35 <.0001	0.26 .003	0.47 <.0001
DIF						1	0.53 <.0001	0.10 .26	0.57 <.0001
DDF							1	0.36 <.0001	0.42 <.0001
EOT			· 	·				1	0.25 .003

Notes. Correlation coefficients are shown on top, with *p*-values underneath. MWA = maternal warmth. MHA = maternal hostility and aggression. MNI = maternal neglect and indifference. FUMTOT = feeling understood by others. ANXTY = attachment anxiety. AVOID = attachment avoidance. DIF = difficulty identifying feelings. DDF = difficulty describing feelings. EOT = externally-oriented thinking. EXPAVO = experiential avoidance.



Figure 1

Theoretical model with directional pathways

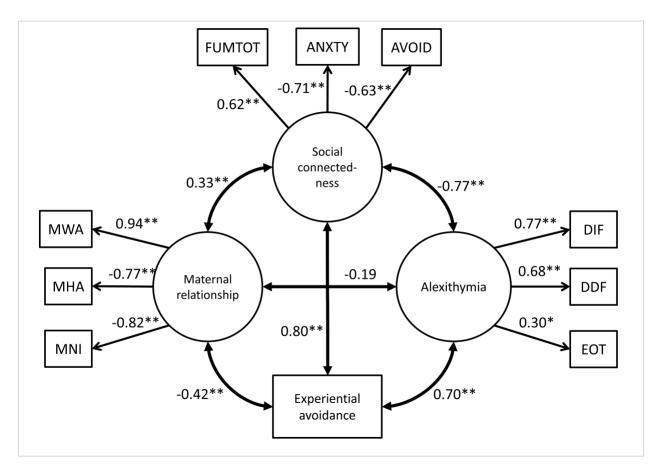


Note. Error terms not shown.



Figure 2

Measurement model with standardized estimates

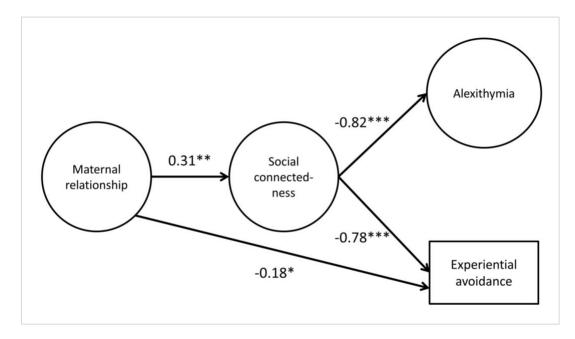


Notes. Error terms not shown. MWA = maternal warmth. MHA = maternal hostility and aggression. MNI = maternal neglect and indifference. FUMTOT = feeling understood by others. ANXTY = attachment anxiety. AVOID = attachment avoidance. DIF = difficulty identifying feelings. DDF = difficulty describing feelings. EOT = externally-oriented thinking. *p < .01, **p < .001.



Figure 3

Final model with standardized path coefficients



Notes. Error terms not shown. *p < .05, **p < .01, ***p < .0001.