

A Multi-Method Study of the Role of Alexithymia and Emotion Self-Awareness
in Couples' Social Support

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis.

This is a true copy of the thesis, including any required final revisions,
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Abstract

The overarching goal of the present study was to examine associations between measures of alexithymia (i.e., difficulty identify and describing one's feelings) and perceptions of social support receipt and provision in a romantic context. The sample consisted of 69 heterosexual couples in long-term committed relationships. Both partners completed self-report and performance-based measures of alexithymia as well as self-report measures of received, provided and expected social support from their romantic partners. The self-report (TAS-20) and performance-based (CEAS) alexithymia measures were weakly correlated and did not demonstrate similar patterns in association with social support variables. TAS-20 scores were associated with self- and partner-reported received and provided supports, as well as self-reported satisfaction with support, but these associations were not replicated with the CEAS. Partners' scores on the CEAS interacted to predict expected support in a given interaction such that individuals high in emotion self-awareness reported expecting less emotional support from partners who were low in emotion self-awareness than from partners high in emotion self-awareness. There was a similar trend for TAS-20 scores. Overall, the results suggest that the TAS-20 is better conceptualized as a measure of alexithymic self-schema rather than of skill deficits and that perceived deficits in emotional functioning are associated with perceptions of social support. The results also have implications for understanding the role of alexithymia in social support and suggest that it warrants attention in couples' therapy focused on support related issues. Future research should examine how an alexithymic self-schema develops and investigate the role of motivation in emotion self-awareness.

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“Emotions, in my experience, aren't covered by single words. I don't believe in "sadness," "joy," or "regret." Maybe the best proof that the language is patriarchal is that it oversimplifies feeling. I'd like to have at my disposal complicated hybrid emotions, Germanic train-car constructions like, say, "the happiness that attends disaster." Or: "the disappointment of sleeping with one's fantasy." I'd like to show how "intimations of mortality brought on by aging family members" connects with "the hatred of mirrors that begins in middle age." I'd like to have a word for "the sadness inspired by failing restaurants" as well as for "the excitement of getting a room with a minibar." I've never had the right words to describe my life, and now that I've entered my story, I need them more than ever. ” - Jeffrey Eugenides, *Middlesex*

As Eugenides suggests, the human emotional experience is complex. Often the words we have available are insufficient to fully communicate our experience to others. The process of evaluating, understanding and expressing emotions is challenging enough for those who have the capacity for such a task. However, imagine how difficult this undertaking must be for individuals who struggle to distinguish between their basic emotional states. Not only would it be personally frustrating when trying to understand and regulate feelings but, given that emotions are a key element of interpersonal interaction, this difficulty would also negatively impact our engagement with the social environment (Buck, 1984; Ekman, 1973). The purpose of the present study was to examine the role of deficits in emotion self-awareness in perceptions of the provision and receipt of social support between romantic partners.

Several theories have been advanced to account for the role of emotion in interpersonal exchanges. For example, Keltner and colleagues developed a social-functional approach to emotion that posits “emotions are multichannel responses that enable the individual to respond adaptively to social problems and take advantage of social opportunities in the context of ongoing interactions” (Keltner & Kring, 1998, p. 321). This theory proposes that emotions assist in the formation and maintenance of social relationships by revealing information to others about intentions and orientations to the relationship, evoking beneficial responses from others during

emotional events, and structuring interactions by motivating others' actions (Keltner & Kring, 1998). This theory suggests that disruptions in these emotion-based processes can lead to failure in social interactions and negatively impact social and personal adjustment.

According to an alternative model, developed by Halberstadt, Denham, and Dunsmore (2001), affective social competence involves three basic elements: sending affective messages, receiving affective messages, and experiencing affect. Additionally, within each of these components, there are four core, hierarchical affective abilities: awareness, identification, working within the social context, and management and regulation. With respect to sending affective messages, Halberstadt et al. (2001) posited that individuals first must have an awareness that an affective message needs to be sent and identify the appropriate affective message to be sent within the social context. They must then determine how to send the message in an appropriate manner within the social context before sending relevant and helpful affective messages. Similarly, with respect to experiencing affect, individuals must first be aware that they are experiencing an emotion and be able to identify the emotion they are experiencing. Then they must understand the meaning of the emotion within the social context and be able to manage their experience of emotion (Halberstadt et al., 2001). As each of these models highlight, the effective use of emotions is fundamental to the success of social interactions and has been studied in various contexts including negotiations (e.g., Druckman & Olekalns, 2008; Elfenbein, Foo, White, Tan, & Aik, 2007), the development and maintenance personal relationships (e.g., Gross & John, 2003), and caregiving (e.g., Swanson, Jensen, Specht, Johnson, Maas, & Saylor, 1997).

Across these different theoretical perspectives, there is an explicit or implicit recognition that the ability to understand one's own emotional experience is a necessary prerequisite for

effective social interactions. One type of interpersonal interaction that may be particularly vulnerable to deficits in emotion self-awareness is that of a social support interaction (i.e., a social exchange in which one person helps the other cope with a personal difficulty; Devoldre, Davis, Verhofstadt, & Buysse, 2010).

Alexithymia

The inability to recognize emotion in the self is commonly referred to as alexithymia, a term introduced by Sifneos (1973) to describe a personality trait characterized by difficulties processing one's own emotions. More specifically, alexithymia refers to difficulty in identifying feelings and a reduced ability to distinguish them from somatic sensations; difficulty describing feelings to others; and a concrete, externally-oriented style of thinking (Taylor, Bagby, & Parker, 1997). Although it is often believed that individuals demonstrating greater alexithymia are unable to express emotions and may fail to acknowledge that they experience emotions, the core issue in alexithymia is poorly differentiated emotions which limit the ability to distinguish and describe these emotions (Taylor & Bagby, 2000a). Thus, individuals may be able to acknowledge and express an emotional experience; however, they have difficulty distinguishing the experience of one emotion from another (e.g., sadness versus anger), are less able to elaborate on their emotional experiences, and prefer to focus on external events rather than emotional experiences. It is thought that these difficulties contribute to a sense of emotional detachment from themselves and problems connecting with others, which can impair social functioning.

Investigations of alexithymia in the context of social interactions have found that alexithymia is associated with cold, non-assertive, and avoidant interpersonal behaviour (Vanheule, Desmet, Meganck, & Bogaerts, 2007). Additionally, individuals with higher levels of

alexithymia have been found to not expect much from other people and to lack a strong desire to meet the expectations of others (Vanheule, Desmet, Rosseel, Verhaeghe, & Meganck, 2006). Not surprisingly, alexithymia has been found to be associated with a variety of interpersonal difficulties. For example, Montebanocci, Codispoti, Baldaro, and Rossi (2004) found alexithymia to be related to discomfort with closeness and with interpersonal relationships not being a priority. Additionally, Vanheule et al. (2007) found that alexithymia was associated with lower levels of perceived affection and connection to others.

In addition to deficits in identifying and describing emotions in the self, alexithymia has also been associated with difficulty in distinguishing and appreciating the emotions of others (Taylor et al., 1997), particularly for expressions of negative affect (e.g., sadness or anger; Jessimer & Markham, 1997). Given that the ability to understand one's own emotions is posited to be a prerequisite to understanding other people's emotions (Bernhardt & Singer, 2012), the difficulty recognizing emotions in others is considered secondary to the primary deficit of emotion self-awareness in alexithymia. That is, the lack of emotion self-awareness is thought to lead to difficulties relating to the emotional experiences of others which, in turn, are thought to lead to difficulties in social functioning. As such, difficulties in interpersonal relationships may be explained, at least in part, by the impact of alexithymia on the ability to empathize (Taylor et al., 2007). More specifically, empathy requires the ability to understand another person's verbal or non-verbal emotional expression, by relating it to one's own experience, in order to appreciate how the other person might be feeling in a given situation and respond appropriately. However, this ability is impaired in alexithymia. Consequently, individuals with high alexithymia scores have been found to have a limited capacity to see things from another person's point of view and

a strong tendency to react to other peoples' negative experiences with distress (Dimaggio, Semerari, Carcione, Procacci, & Nicolo, 2006; Guttman & Laporte, 2002).

Although alexithymia is not classified as a mental disorder in the Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition (DSM-5), elevated levels of alexithymia have been found to co-occur with a number of disorders including autism spectrum disorder (ASD), eating disorders, substance abuse, post-traumatic stress disorder, and social anxiety disorder (Bird & Cook, 2013; Grynberg et al., 2012). For example, alexithymia has been noted to be particularly prevalent in the ASD population with between 40% and 65% of adults with ASD demonstrating mild to severe alexithymia (Berthoz & Hill, 2005). Despite this high level of co-occurrence, alexithymia and ASD are independent constructs. That is, the presence of alexithymia is not necessary or sufficient to warrant an ASD diagnosis. Furthermore, alexithymia is not universally present in individuals with ASD. Similarly, many individuals exhibit severe alexithymia without demonstrating additional ASD symptoms. Bird and Cook (2013) posited that deficits of emotion recognition and empathy in ASD can be explained by the presence of alexithymia rather than being characteristic of ASD itself.

Social Support

Although emotion self-awareness is important in navigating social interactions in general, one type of interaction that may be particularly vulnerable to deficits in this ability is that of a supportive exchange. Social support has been conceptualized in the psychological literature in a number of ways and, despite the discrepancies, the majority of characterizations are based on the notion that social support involves behaviours that demonstrate care and concern for another person's needs (Verhofstadt, Buysse, Ickes, Davis, & Devoldre, 2008). Social support has been suggested as a critical factor in the psychological well-being of adults with evidence being found

in a variety of studies examining physical health (e.g., Baron, Cutrona, Hicklin, Russell, & Lubaroff, 1990), subjective well-being (e.g., Rao, Apte, & Subbakrishna, 2003) and psychological distress (e.g., Kurdek, 1989).

Although general levels of, and satisfaction with, social support received from a range of sources have been shown to be significant determinants of personal well-being, the source of support (e.g., romantic partner versus close friend) has also been shown to be an important factor in determining the relationship between social support and personal well-being. Several researchers have suggested that support from romantic partners is particularly important to psychological well-being (Coyne & DeLongis, 1986; Kurdek, 1989; Pasch & Bradbury, 1998; Pasch, Bradbury, & Davila, 1997). This assertion is due to the fact that compared to other relationships; the relationship with a romantic partner is typically more exclusive and involves more frequent and more emotionally intense interactions (Cutrona, 1996). There is also a high level of interdependence in the romantic partner relationship that may increase dependence on, and the salience of, partners' support behaviours.

With respect to the importance of partner support specifically, Walen and Lachman (2000) found that although support from all sources was related to well-being, partner support exchanges were the most significant predictors of self-reported psychological well-being and health. In addition to being beneficial for general well-being, social support between partners has been reported to be a key factor in relationship outcomes. Social support in the context of romantic relationships includes partners' efforts to fulfill the immediate needs of their partners as well as the cumulative benefits of supportive interactions. When there is consistent responsiveness to the partner's needs over time, it can nurture love, trust, tolerance, and commitment, which have each been shown to contribute to the stability of romantic relationships

(Cutrona, Russell, & Garnder, 2005). Accordingly, several studies have found that individuals who report higher levels of support from their partner are more satisfied with their relationships than those who report lower levels of support (e.g., Acitelli & Antonucci, 1994). Additionally, studies have found that individuals often identify lack of marital support as a significant reason for relationship dissatisfaction and dissolution (e.g., Baxter & Bullis, 1986). Thus, social support is a valuable domain for understanding what leads marriages to succeed or fail.

The data are consistent in suggesting that support exchanges between partners are a key component in relationship and individual well-being and happiness. However, this is not to say that providing support is easy. When support is provided in an effective and elegant manner, it can look deceptively simple and effortless. Yet, there are many delicate steps in a support interaction and within each of these steps, there is potential for misunderstanding and miscommunication. Pearlin & McCall (1990) described four stages of a support interaction: revelation/recognition, appraisal, selection of forms of support, and support outcomes. The first stage of the model requires that support seekers reveal the need for support and support providers recognize the need for support. Although the need for support is relatively easy to recognize when support seekers verbally state that they are in need of support, this explicit request does not always occur in long-term relationships. As such, support providers may need to rely on other aspects of communication, such as emotional cues, to detect that support seekers are in need of support.

Similarly, in the appraisal stage of the model, support providers must determine whether the distress being experienced warrants the provision of support. This task may require support providers to rely on their own emotional experience in order to understand what support seekers are experiencing in response to the distress. When support providers lack this ability, they may

ignore or invalidate support seekers' need for support by engaging in negative forms of support such as telling them to 'get over it'. In instances where the need for support is deemed warranted, support providers must determine an appropriate form of support (e.g., emotional, instrumental, etc.) to provide. A lack of emotion self-awareness may lead to difficulty in determining which form of support would be most beneficial.

Within each of these stages, the emotional abilities of support seekers may also impact the outcome of the interaction. For example, support seekers may have more difficulty communicating their support needs, either verbally or non-verbally, to support providers when they have difficulty identifying, understanding, and/or describing their own emotions. These individuals may also desire different forms of support than support providers would if the positions were reversed and, as such, not perceive attempts at support as being supportive. As this brief overview of the stages of support provision indicates, a successful support interaction requires a basic level of emotion self-awareness ability on the part of support providers as well as support seekers.

As outlined in the Pearlin and McCall (1990) model, there are a number of decision points during an interaction that can impact the provision and receipt of social support. As an illustration, imagine that Mary arrives home from work after a particularly stressful day. If her partner, John, has deficits in emotion self-awareness, he may notice that Mary is experiencing distress but not be able to draw on his past emotional experience to determine that support provision would be helpful and/or what type of support might be appropriate. By the same token, Mary's emotion self-awareness will also impact the support interaction. For example, if Mary has deficits in this area, she may not be able to describe her feelings to John so that he has the opportunity to offer appropriate support. Although this example is not exhaustive with respect to

the role that emotion self-awareness can have in supportive interactions, it demonstrates that this skill is important to both the provision and receipt of social support in romantic relationships.

Although there has been a recent interest in the role that emotion abilities play in social support, the existing literature has tended toward a focus on constructs that represent higher order emotional functioning. More specifically, Verhofstadt et al. (2008) examined the roles of emotional similarity (i.e., experiencing affective states that match those of a distressed dyadic partner) and empathic accuracy (i.e., accurately deducing and inferring the content of another person's thoughts and feelings) in support provision in marriages. The authors found that greater emotional similarity was associated with the provision of more emotional support and less negative support, a term coined to describe behaviours, such as criticizing or blaming, that do not provide assistance in improving the situation (Bradbury & Pasch, 1994). Their results also showed that greater empathic accuracy was associated with the provision of more instrumental support and less negative support. Although the Verhofstadt et al. (2008) study provides evidence that emotion plays a role in social support, there is a paucity of literature examining the role of basic emotion self-awareness in the area of social support in romantic relationships.

My overarching goal for the present study was to better understand how emotion self-awareness relates to social support exchanges in the context of long-term, committed relationships. In particular, I wanted to examine whether lower levels of emotion self-awareness were associated with lower levels of perceived support, less satisfaction with received support, and less effective support provision. I extended past research by examining multiple facets of support and by examining global perceptions of support as well as expectations of future support from a partner in pursuing a personal goal (e.g., the goal to change a career path or to adopt a more active lifestyle). The second goal was to examine the utility of a self-report measure of

alexithymia by comparing the association between self-report and performance-based measures of alexithymia and by examining how each of these measure relate similarly or differently to support outcomes. For the final goal, I investigated how different pairings of emotion self-awareness (i.e., low-low; low-high; high-high) related to an individual's expectations of the support they would receive from their partner in a supportive interaction.

Alexithymia and Global Social Support

A number of past studies have investigated the association between self-reported alexithymia and *perceived* support, the subjective judgment that others have offered effective assistance during times of need (e.g., Lumley, Ovies, Stettner, Wehmer, & Lakey, 1996; Mallinckrodt & Wei, 2005; Pandey, Gupta, & Upadhyaya, 2000; Posse, Hallstrom & Backenroth-Ohsako, 2002). Pandey et al. (2000) found that high self-report alexithymia scores were associated with poor perceived availability of social support in a sample of female undergraduate students. Similarly, in a study of adult females in Sweden, Posse et al. (2002) found that women with high self-reported alexithymia were 3.5 times more likely to report low levels of social support than those with lower alexithymia. Furthermore, Mallinckrodt and Wei (2005) found self-reported alexithymia to be associated with lower levels of perceived social support in a sample of male and female undergraduate students and Lumley et al. (1996) found self-reported alexithymia, specifically deficits in identifying and communicating emotions, to be associated with less perceived social support in samples of undergraduate students and individuals with a chronic disease (i.e., Ehlers-Danlos syndrome). Thus, across different samples and different methods of measuring perceived support, there is a consistent, well-replicated finding that individuals who self-report higher levels of alexithymia are less likely to feel supported by those in their social environment.

The first goal of the present study was to replicate and extend past research on the association between self-reported alexithymia and perceived support within the context of romantic relationships. Based on findings from previous research that alexithymic¹ individuals report receiving lower levels of support, I predicted that: (1a) self-reported alexithymia would be negatively associated with levels of self-reported received support.

In addition to replicating past research, I wanted to extend it in a number of ways. First, I wanted to examine the relationship between alexithymics' perceptions of support and the level of support their partners report providing. It is possible that the lower levels of support reported by individuals who are higher in alexithymia reflect a perceptual bias. That is, their partners are providing support but individuals who score higher on alexithymia do not experience feeling supported by their partners. Alternatively, it is possible that the partners are providing less support, thus corroborating the experience of lower support by the individual with alexithymia. Teasing this issue apart is important for theoretical and clinical reasons. If, for example, this is a perceptual bias issue (i.e., alexithymics report receiving less support but their partners are no different from partners of non-alexithymic individuals in the support that they provide), it would suggest that it may be that individuals with alexithymia not only have difficulty understanding and describing their own emotional states but have difficulty encoding the behaviours of those who provide them with support. If, on the other hand, the reports of lower received support are corroborated by the partner, this could suggest a more “relational impact” of alexithymia. That is, partners of individuals with alexithymia may be frustrated that their support is not appreciated

¹ In this manuscript, we use the term “alexithymic” for ease of communication; however, we would like to emphasize that, consistent with past research, we view alexithymia as a dimensional construct. That is, we believe that there are quantitative, not qualitative, differences between individuals who are high in alexithymia versus those who are low in alexithymia.

or noticed or they find they have to work too hard to provide the support because, in addition to helping their partner through a difficulty, they also have to try to understand what their partner is experiencing. As a result, there may be support fatigue, leading to the provision of less support.

Although the existing literature points to alexithymia being associated with a perceptual deficit in processing external emotional stimuli such as the emotional expressions of others (e.g., Parker, Wood, Bond, & Shaughnessy, 2005), it has not been found to be a universal deficit (Prkachin, Casey, & Prkachin, 2009). Alexithymics have been found to have greater difficulty processing some emotions in facial expressions (e.g., anger, fear, sadness) than other emotions (e.g., happiness, surprise, disgust) and perform comparably to non-alexithymics in processing more positive emotions (e.g., happiness). Additionally, when they are provided with sufficient time to process the facial expressions, alexithymic individuals have been found to be capable of recognizing and identifying all emotional expressions and performed as well in this area as non-alexithymic individuals (Prkachin et al., 2009). Overall, these findings suggest that the perceptual issues in alexithymia might lead to slower processing of negative emotions in others; however, given that supportive behaviours typically involve more positive emotions, there is no reason to suspect that alexithymic individuals would not be able to recognize support when it is provided. As such, I tentatively predicted that alexithymics' report of receiving less support from their partners would not be reflective of a perceptual bias, but would in fact be corroborated by the partner report. Thus, I hypothesized that (2a) self-reported alexithymia would be negatively associated with levels of partner-reported provided support.

Thus far the discussion has focused on the role that alexithymia plays in the experience of social support for the alexithymic individual. I wanted to extend this work by investigating whether alexithymia is also associated with impaired *provision* of support to one's partner. As

outlined above in the discussion of the Pearlin and McCall (1990) stages of social support, it is possible that deficits in emotion self-awareness can also interfere with the provision of social support. That is, an individual with deficits in emotion self-awareness may be impaired in their ability to understand and respond appropriately to the social support needs of their partner. As previously discussed, alexithymic individuals have been found to have greater difficulty processing emotions such as anger or sadness. It is at times when people are experiencing these kinds of emotions that they would be most likely to want support from others. If alexithymic individuals have difficulty detecting, or take longer to detect, these negative emotions in their partners, they may not recognize the need to provide support. Additionally, given the difficulty alexithymic individuals experience with respect to understanding their own emotional states, they may have difficulty drawing on their own experiences and knowing how to provide appropriate support to their partners. As such, it was hypothesized that (2b) self-reported alexithymia would be negatively associated with self-reported *provided* support. As I gathered data from both partners, I was also able to assess if the partners of alexithymics reported receiving less support. I predicted that, consistent with my prediction of alexithymic individuals' reporting that they provide less support to their partners, (1b) self-reported alexithymia would be negatively associated with partner-reported received support.

Another way in which I extended past research on social support and alexithymia was by examining both partners' satisfaction with the support that they receive. Although previous research has found that alexithymics typically report being less satisfied with the support they receive than non-alexithymics (e.g., Humphreys, Wood, & Parker, 2009), no studies to date have examined whether the support that alexithymic individuals are providing is satisfactory for their interaction partners. Consistent with previous literature, I predicted that (3a) self-reported

alexithymia would be negatively associated with overall satisfaction with self-reported received support. Additionally, given that I expect deficits in emotion self-awareness to negatively impact the provision of support by alexithymics, I also predicted that (3b) self-reported alexithymia would be negatively associated with partners' overall satisfaction with received support.

The final way in which I extended past work on alexithymia and social support was by examining whether alexithymia is also associated with specific, in the moment expectations for partner behaviour during an upcoming support transaction. The variables discussed thus far (i.e., perception of received support, satisfaction with support, provision of support) are best conceptualized as relating to the relationship in a global context. That is, individuals reporting the degree to which they were responsive to their partners' needs during a given period of time (e.g., two weeks, one month, six months) or their partners were responsive to their needs during a given period of time. However, as Bradbury and Fincham (1991) suggest, there may be differences between cognitive appraisals made in distal contexts (i.e., global appraisals of stable, trait-like aspects of a relationship) versus those made in proximal contexts (i.e., event-dependent, changeable appraisals of a specific situation). Research has demonstrated that each of these types of appraisals influence various aspects of relationship functioning (e.g., Fincham, Gamier, Gano-Phillips, & Osborne, 1995; Fincham, 1994).

Although the emphasis in the literature to date has been on studying distal cognitive factors (e.g., relationship satisfaction), the importance of examining proximal factors has been suggested given that they are related to immediately modifiable behaviours (Sanford, 2006). Consistent with this assertion, a number of event-dependent cognitions have been identified among couples and studied with respect to the strategies individuals use to influence their partners. One of these cognitions is that of expectancies for marital communication (i.e., beliefs

about what is going to happen during an interaction). In the context of social support, expectations in a specific interaction involve anticipating a partner's behaviour in response to the support seeker raising a specific issue for which they need support (e.g., desire to eat healthier; desire to find a more fulfilling career). The interaction specific appraisal is the support seeker's rating of how supported they expect to feel by the support provider during that specific interaction. Such expectancies have been thought to tap into a couple's relational efficacy (e.g., Doherty, 1981). The present study focused on examining the impact of alexithymia on specific types of support that support seekers expect to receive in a supportive interaction with their partners (i.e., support providers).

The types of social support examined in the present study were based on Bradbury and Pasch's (1994) Social Support Interaction Coding System and included both positive and negative support. Positive support encompasses instrumental support (i.e., various types of tangible help); emotional support (i.e., expressions of empathy, esteem, and caring); and other support (e.g., displaying interest in helping and using humor in a helpful manner). As noted earlier, negative support refers to behaviours that do not provide assistance in improving the situation such as criticizing or blaming.

Although previous studies have not examined the impact of emotion self-awareness on expectations for different types of support, given that alexithymic individuals typically report receiving lower levels of support than non-alexithymic individuals, it is conceivable that they would come to expect lower levels of positive support from their partners. As such, it was hypothesized that (4) self-reported alexithymia would be negatively associated with expected positive support. Additionally, given the reported dissatisfaction with the support they receive, it is conceivable that alexithymic individuals may perceive that they receive greater levels of

negative support from their partners and subsequently come to expect this in interactions. As such, it was hypothesized that (5) self-reported alexithymia would be positively associated with expected negative support.

Self-Report Alexithymia versus Performance-based Emotion Self-Awareness

In reviewing the literature related to alexithymia and social support, it was apparent that most, if not all, studies have relied on self-report measures of alexithymia, with the Toronto Alexithymia Scale (TAS-20) being the most commonly used. Parker, Taylor and Bagby (2004) assert that evidence of construct validity for the TAS-20 has been provided by studies that have shown that the scale correlates significantly and negatively with self-report measures of psychological mindedness, need for cognition, empathy, and openness to experience. However, as Lane et al. (1996) point out, a potential drawback of relying on self-reports of alexithymia is that such reports would not be able to capture those individuals who may not have good insight into their existing deficits.

Several studies support the notion that individuals may not be the best raters of their own emotional skill. For example, Hall, Gaul, and Kent (1999) found no significant associations between college students' self-reported ability to perceive nonverbal emotional cues and their actual performance on an emotion recognition task. Similarly, Brackett, Rivers, Shiffman, Lerner, and Salovey (2006) found that the relationship between actual and estimated emotional intelligence was either non-existent or small in magnitude. Furthermore, Noller and Venardos (1986) found that participants were as confident in their accuracy in decoding their spouses' nonverbal expressions of emotions when they were incorrect as when they were correct. Although in their response to criticisms of the use of self-report scales to assess alexithymia, Parker et al. (2004) point to evidence of agreement between TAS-20 scores and observer ratings

of alexithymia (i.e., the Beth Israel Hospital Psychosomatic Questionnaire), researchers continue to assert that additional studies using independent measures that involve a direct measure of performance are needed to determine the validity of the TAS-20 (e.g., Montebanocci, Surcinelli, Rossi, & Baldaro, 2011). As such, the second goal of the present study was to examine the suitability of a self-report measure of alexithymia by comparing self-reported alexithymia and performance-based deficits.

I first examined the zero-order correlation between the self-report measure of alexithymia and performance-based measure of emotion self-awareness. If both the self-report and performance-based measures tap into the same construct, I would expect a strong correlation. If, however, as Lane et al. (1996) suggest, individuals experiencing deficits in emotion self-awareness lack insight into their own deficits, then I would expect the self-report and performance-based measures to be weakly correlated or uncorrelated. For example, it is possible that individuals with little insight into their emotion self-awareness may self-report few difficulties when, in fact, they perform poorly on a task assessing emotion self-awareness. The converse is also possible. Some individuals may perceive themselves as having greater difficulty in identifying and describing emotion than they actually do. In this case, individuals may self-report greater difficulties than they demonstrate on a performance-based measure. In either of these events I would expect, and as such hypothesized, a low correlation between the measures.

To further examine the validity of the self-report measure of alexithymia, I examined whether it and the performance-based measure of emotion self-awareness would be similarly associated with different indices of social support. If I found that the self-report and performance-based measures are significantly correlated and that they also relate to the outcomes of social support interactions in the same way, this would bolster the idea that the two measures

are assessing the same underlying construct. As such, I tentatively predicted that performance-based emotion self-awareness would be positively associated with: (6a) levels of self-reported received support; (6b) levels of partner-reported received support; (7a) levels of self-reported provided support; (7b) levels of partner-reported provided support; (8a) received support satisfaction; (8b) partners' satisfaction with received support; (9) expected positive support; and that (10) performance-based emotion self-awareness would be negatively associated with expected negative support.

Relationship between Interaction of Partners' Deficits and Support Expectations

Another limitation of previous research examining alexithymia and social support is that studies have only gathered data from one partner of a social interaction, thus providing a limited and incomplete understanding of how an individual's alexithymia impacts the partner or how partners' deficits interact with each other. The first question – how one partner's functioning influences the other partner – was examined as part of the first goal of the study. Now, turning to the second question, given the level of interdependence in social support interactions in romantic relationships, it is conceivable that the various constellations of alexithymia possible in partnerships differentially impact the types of support that are expected in a supportive interaction. That is, support providers' alexithymia might interact with the support seekers' alexithymia to determine types of support expected in a given interaction.

This line of thinking is consistent with the theory of collaborative cognition, which refers to two or more individuals working together to complete a cognitive task (Gagnon & Dixon, 2008). Research in this area suggests that partners in romantic dyads tend to have an understanding of each other's cognitive abilities and take this into account when determining the tactics they use to approach a cognitive task (Berg et al., 2007). Although this research has not be

applied to the study of alexithymia specifically, or emotional skill in general, the findings can inform our thinking about how alexithymia in one partner may impact the other.

In marital support exchanges where one partner is alexithymic, the other partner may adjust their expectations for the interaction so that there is an increased chance for success. For example, a non-alexithymic individual may recognize that their alexithymic partner is not as emotionally aware and, thus, may not expect high levels of emotional support. Conversely, a non-alexithymic individual may be aware that their non-alexithymic partner is emotionally aware and subsequently not need to lower their expectations for high levels of emotional support. However, given the deficits associated with alexithymia, it is likely that alexithymic individuals' expected emotional support would not be impacted by their partners' alexithymia. As such, it was hypothesized that (11) support seekers' self-reported alexithymia would interact with support providers' self-reported alexithymia to predict *expected* emotional support (i.e., higher support provider alexithymia would be associated with emotional support being less expected, but only among support seekers who were low in alexithymia) and (12) support seekers' performance-based emotion self-awareness would interact with support providers' emotion self-awareness to predict *expected* emotional support (i.e., lower support provider emotion self-awareness would be associated with emotional support being less expected, but only among support seekers who were high in emotion self-awareness).

Method

Participants

Participants were 69 heterosexual couples, aged 21-65 years ($M = 38.72$ years ($SD = 12.67$) for males and $M = 36.99$ years ($SD = 12.35$) for females). All couples were married ($N = 48$), or had been living together as if married ($N = 21$), for at least 1 year. The average relationship length for married couples was 14.20 years ($SD = 8.79$) and for cohabitating couples was 4.11 years ($SD = 2.62$). The majority of the sample (63 males; 64 females) self-identified as Caucasian; 2 males and 1 female as South Asian; 2 males and 1 female as Hispanic; 1 male as Aboriginal; and 1 female as South Asian/Caucasian. Approximately half the sample (54%) reported having one or more children.

Recruitment

A number of strategies were employed to recruit participants. Posters were placed in local stores, restaurants, and other businesses with approval from the locations' owners or managers. An advertisement was also posted in the Community Volunteers sections of Kijiji for Kitchener-Waterloo and Cambridge. All advertisements directed potential participants to telephone the Relationship Research Lab. A trained research assistant provided interested participants with additional information about the study using an established protocol (see Appendix A) and answered potential participants' questions.

Measures

Demographics. The background questionnaire was designed for the present study. It contained 15 questions and gathered information about participants' demographic characteristics, relationship history, and children.

Self-reported alexithymia. The Toronto Alexithymia Scale (TAS-20; Taylor, Bagby & Parker, 1992) is a 20-item self-report measure of three inter-correlated dimensions of the alexithymia construct: (a) difficulties identifying feelings (e.g., “I am often confused about what emotion I am feeling.”), (b) difficulties describing feelings (e.g., “It is difficult for me to find the right words for my feelings.”), and (c) externally-oriented thinking (e.g., “I prefer talking to people about their daily activities rather than their feelings.”). Participants rated their level of agreement with statements on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). The total alexithymia score is the sum of responses to all 20 items. The TAS-20 has well-established psychometric properties and has been shown to be a reliable instrument (Taylor, Bagby, & Parker, 2003). Cronbach’s $\alpha = .83$ for the present sample. Parker et al. (2004) suggest that the TAS-20 has construct validity based on the significant and negative correlations between the TAS-20 and self-report measures of psychological mindedness, need for cognition, empathy, and openness to experience.

Performance-based emotion self-awareness. The Couples’ Emotional Awareness Scale (CEAS; Croyle & Waltz, 2002) is a 12 item structured interview measure of emotional awareness in romantic relationships. It is a modified version of the widely used Levels of Emotional Awareness Scale (LEAS) which was developed to test emotional awareness and has demonstrated good reliability and validity (Lane, Quinlan, Schwartz, Walker, & Zeitlin, 1990). Participants were presented with a series of scenarios that portray common situations within couples’ relationships (e.g., “You’ve had a long, exhausting day and you tell your partner that you need some time alone to unwind. Your partner says he/she would really like to talk to you about his/her day”). After the scenario was presented, the participant was asked “How would you feel?” and “How would your partner feel?” Responses were audio-recorded and later transcribed

verbatim. The transcribed responses were then rated for the level of emotional awareness demonstrated, based on scoring criteria developed by Lane and colleagues (1990). The rater first scored words and phrases in the response that denoted an emotional response. The word scores ranged from 0 to 3 such that non-emotion words (e.g., distant) were given a score of 0; physical reactions (e.g., tired) were given a score of 1; non-specific emotions (e.g., bad) were given a score of 2; and specific emotions (e.g., angry) were given a score of 3. A score of 4 was assigned when two or more level 3 words were used in a way that conveyed greater emotional differentiation than would either word alone (e.g., angry and sad). As the focus of the present study was emotion self-awareness, the sum of rated responses to the question “How would you feel?” was used for the present study. The CEAS has demonstrated good internal consistency, relatively high test-retest reliability, and high inter-rater reliability (Croyle & Waltz, 2002). In the current study, the CEAS demonstrated good internal consistency (Cronbach’s $\alpha = .80$). Interviews were coded by a second rater for 20% of interviews. Inter-class correlation coefficients (ICC) for each of the 12 items ranged from .83 to .93. The ICC for the total scale was .86.

Global support. The Berlin Social Support Scales (BSSS; Schulz & Schwarzer, 2003) are multidimensional measures of dyadic social support. Two BSSS scales (described below) were used in the present study. For each scale participants rated their agreement with 14 statements on a 4-point scale from 1 (strongly disagree) to 4 (strongly agree). The BSSS has demonstrated good internal consistency and validity (Schulz & Schwarzer, 2004).

Received Support (BSSS-R). Items on the received support scale pertained to the participant’s partner’s behaviours (e.g., “My partner comforted me when I was feeling bad”) over the past week. Cronbach’s $\alpha = .85$ for the present sample.

Provided support (BSSS-P). Items on the provided support scale pertained to the participant's behaviours toward their partner (e.g., "I comforted him/her when he/she was feeling bad") over the past week. Cronbach's $\alpha = .86$ for the present sample.

Received support satisfaction (BSSS-R Sat). Satisfaction with support was assessed via a single item, included as the last item of the BSSS-R, pertaining to participants' satisfaction with their partners' supportive behaviours (i.e., "In general, I am very satisfied with the way my partner behaved") over the past week.

Interaction specific expected support. The Social Support Interaction Inventory – Expected Support (SSII-E) is a 54 item self-report measure designed to assess support seekers' expectations for support providers' behaviours prior to engaging in a supportive interaction with their partner. That is, it measures the extent to which an individual believes that his/her partner would be supportive if the individual were to discuss a personal (non-relationship) goal with the partner. The SSII-E is based on the Social Support Interaction Coding System (SSICS; Bradbury & Pasch, 1994) and was adapted for use for the current study, with permission from Dr. L. Pasch. The SSII-E assesses four categories of social support that correspond directly with categories of social support assessed with the SSICS: positive instrumental, positive emotional, positive other and negative. Positive instrumental behaviours include offering specific assistance or asking questions about the problem. Positive emotional behaviours include reassurances and displays of affection. Positive other behaviours include displaying interest in helping partner and using humour in a helpful manner. Negative behaviours include criticizing or blaming the partner. Participants were asked to indicate how likely it was that their partners would engage in each of the 54 support behaviours using a 5-point scale from 1 (*Very Unlikely*) to 5 (*Very Likely*) during a discussion of a specific topic chosen by the participants. The wording of the statements

reflected future behaviours (e.g., My partner will suggest the importance of developing a specific plan for solving the problem). Cronbach's alphas for the SSII-E subscales ranged from .83 to .87 for the present study.

Relationship satisfaction. The Quality of Marriage Index (QMI; Norton, 1983) is a 6-item questionnaire that assesses satisfaction with one's current romantic relationship. Participants rate their agreement with five statements such as "We have a good relationship" on a scale from 1 (very strongly disagree) to 7 (very strongly agree). They also rate their overall happiness in the relationship on a scale from 1 (very unhappy) to 10 (perfectly happy). The QMI has demonstrated good internal consistency and validity (Karney, Bradbury, Fincham, & Sullivan, 1994). Cronbach's $\alpha = .82$ for the present sample.

Procedure

Data for the present study were obtained from the community sample of a larger study of couple functioning following traumatic brain injury. As such, participants completed additional measures and tasks; however, only those relevant to the present study are discussed here.

Each couple participated in a research session in The Relationship Research Lab located at the University of Waterloo. After consent had been provided, partners were separated and taken to different rooms to complete a questionnaire package that included the background questionnaire and QMI. Each partner was then asked to identify three important personal characteristics, problems or issues that he/she would like to change, with the explicit restriction that the topic could not be a source of tension in the marriage. Participants were then asked to rank the topics in order of importance 1 (*most important*) to 3 (*least important*). After the topics had been listed and ranked, participants completed the TAS-20 and the measures of global support (BSSS-P and BSSS-R). A research assistant then met with each participant and asked

him/her to complete the measure of expected support (SSII-E) thinking about a discussion with their partner about their highest ranked personal goal. At this time, participants also completed the CEAS interview. During the final part of the assessment, participants completed additional tasks and measures that were not analyzed in the current study. At the end of the study, the research assistants met individually with each partner to make sure they had no concerns about their participation in the study. The couple were then brought together in one room where the research assistants thanked them for their participation, reviewed the feedback letter, and provided remuneration of \$80 per couple.

Data Analysis

The data for the present study were collected from romantic partner dyads and, as such, violate the assumption of independent observations required for traditional statistical methods (Kenny, Kashy, & Cook, 2006). Therefore, data analytic procedures that account for interdependent observations were used. More specifically, the majority of hypotheses were examined via the Actor-Partner Interdependence Model (APIM; Kenny et al., 2006) using Structural Equation Modeling (SEM) in AMOS 21.

The APIM (see Figure 1) estimates the effect of each person's predictor variable (i.e., X1 and X2 in the model) on his/her own outcome variable (i.e., Y1 and Y2 in the model) and on his/her partners' outcome variable simultaneously and independently. The actor effects (i.e., path coefficients a_1 and a_2 in the model) represent the effect that each X has on their own Y and the partner effects (i.e., path coefficients p_1 and p_2 in the model) represent the effect that each X has on their partners' Y. The partner effects explicitly examine the interdependence and mutual influences that exist between two partners in a relationship (Sadler, Ethier, & Woody, 2011).

The selection of an appropriate APIM requires a determination of whether members of each dyad can be distinguished from one another on the basis of a particular variable. Given that the data were collected from heterosexual couples, the dyads are theoretically distinguishable on the basis of gender. However, although males have been found to demonstrate greater levels of alexithymia than females (e.g., Levant, Hall, Williams, & Hansan, 2009), there was no empirical evidence to suggest that gender would differentially impact associations between emotional abilities and social support. As such, the data were analyzed using APIM for distinguishable dyads with means and variances allowed to differ; however, respective actor effects and partner effects were constrained to be equal (i.e., $a_1=a_2$ and $p_1=p_2$) in each model. This strategy had the advantage of pooling effects across men and women, yielding greater power for the statistical analyses. For models in which there was a significant lack of fit, potential gender effects were explored by re-estimating the models while allowing the actor and partner effects to differ.

Results

Preliminary Analyses

Prior to conducting the main analyses, I examined the data for accuracy of data entry, missing values, and fit between distributions and assumptions of multivariate analyses. The variables were examined separately for males and females.

There were 2 males with missing data and 2 females with missing data. For males: cases 55 and 48 were missing TAS-20 scores, BSSS scores (i.e., past week support), and SSII-E scores (i.e., expected emotional, instrumental, other and negative support). For females: case 8 was missing a CEAS score and case 69 was missing BSSS scores. No cases were deleted as the SEM method utilized to estimate parameters (i.e., Maximum Likelihood) is capable of handling missing data. No variables were missing more than 5% of cases and none were deleted.

No univariate outliers were detected. Using Mahalanobis distance with $p < .001$, no cases were identified as multivariate outliers in their own groups (Tabachnick & Fidell, 2007).

Table 1 presents means and standard deviations for measures of alexithymia, emotion self-awareness and social support. The means were compared across genders using paired sample t -tests. Females self-reported lower alexithymia (TAS-20) and performed better on the measure of emotion self-awareness (CEAS) than males.

As can be seen in Table 1, males reported providing and receiving more support in the past week and being more satisfied with support than females. Males reported expecting greater levels of emotional, instrumental and positive other support than females. Additionally, scores on the TAS-20 were associated with overall relationship satisfaction ($r(135) = -.24, p = .01$) such that greater alexithymia was associated with lower relationship satisfaction. Scores on the CEAS were not associated with relationship satisfaction ($r(135) = .05, p = .59$).

An independent samples *t*-test confirmed that the relationship length for married couples ($M = 14.20, SD = 8.79$) was significantly longer than for cohabitating couples ($M = 4.11, SD = 2.62; t(62) = 7.25, p < .001$).

Table 2a presents bivariate correlations between the dependent and independent variables separately for males and females. Table 2b presents bivariate correlations for the whole sample, collapsing across males and females. Male alexithymia was negatively correlated with one's own received support, provided support, and expected emotional support. Female alexithymia was negatively correlated with one's own received support satisfaction and provided support. Male emotion self-awareness was not significantly correlated with any other variables; however, for females, emotional self-awareness was negatively associated with one's own received support. There were no significant associations between partners' TAS-20 scores ($r(67) = .01, p = .92$) or their CEAS scores ($r(68) = .11, p = .36$).

Main Analyses

Self-reported alexithymia and global received support. To test hypotheses (1a) that self-reported alexithymia would be negatively associated with levels of self-reported received support and (1b) that self-reported alexithymia would be negatively associated with levels of partner-reported received support, an APIM with male and female TAS-20 scores entered as predictor variables and male and female BSSS-R scores entered as outcome variables (see Figure 2) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = 2.69, p = .26; CFI = .96; RMSEA = .07$ (90% confidence interval = 0 - .26)) indicated an acceptable fit.

The standardized (β) and unstandardized (B) regression weights for the model are presented in Table 3.²

As can be seen from Table 3, hypotheses (1a) and (1b) were supported. That is, individuals who scored higher on the self-report measure of alexithymia reported receiving less support from their romantic partner. As well, their romantic partner reported receiving less support from them.

Self-reported alexithymia and global provided support. To test hypotheses (2a) that self-reported alexithymia would be negatively associated with levels of partner-reported provided support and (2b) that self-reported alexithymia would be negatively associated with provided support, an APIM with male and female TAS-20 scores entered as predictor variables and male and female BSSS-P scores entered as outcome variables (see Figure 3) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = 1.33, p = .52$; CFI = 1.00; RMSEA = 0 (90% confidence interval = 0 - .21)) indicated an excellent fit. The standardized (β) and unstandardized (B) regression weights for the model are presented in Table 3.³

As can be seen from Table 3 hypotheses (2a) and (2b) were supported. That is, greater self-reported alexithymia was associated with less self-reported provided support and less partner-reported provided support.

Self-reported alexithymia and global support satisfaction. To test hypotheses (3a) that self-reported alexithymia would be negatively associated with self-reported satisfaction with

² This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

³ This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

received support and (3b) that self-reported alexithymia would be negatively associated with partners' received support satisfaction, an APIM with TAS-20 scores entered as predictor variables and BSSS-R Satisfaction scores entered as outcome variables (see Figure 4) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = 2.13, p = .35$; CFI = .98; RMSEA = .03 (90% confidence interval = 0 - .24)) indicated an excellent fit. The standardized (β) and unstandardized (B) regression weights for the model are presented in Table 3.⁴

As can be seen in Table 3, hypothesis (3a) was supported such that self-reported alexithymia was negatively associated with self-reported support satisfaction. That is, greater alexithymia was associated with less satisfaction with received support. Hypothesis (3b) was not supported. There was no significant association between self-reported alexithymia and partners' levels of satisfaction with the support they received.

A post-hoc analysis examining the association between self-reported alexithymia and self-reported satisfaction with received support, while controlling for self-reported received support, was conducted. An APIM with TAS-20 scores entered as predictor variables, BSSS-R Satisfaction scores entered as outcome variables, and BSSS-R scores entered as control variables was estimated.

Examination of the goodness-of-fit indices for the constrained model ($\chi^2(4) = 12.72, p = .01$; CFI = .88; RMSEA = .18 (90% confidence interval = .07 - .29)) indicated a significant lack

⁴ This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

of fit. As such, the model was re-estimated allowing the actor effects and partner effects to differ (i.e., a fully saturated model ($df = 0$)).

After controlling for self-reported received support, greater alexithymia was associated with less satisfaction with received support for females ($\beta = -.23$; $B = -.02$, $SE = .01$, $p = .02$) but not for males ($\beta = .11$; $B = .00$, $SE = .01$, $p = .64$)

Self-reported alexithymia and interaction specific social support. To test hypothesis (4) that support seekers' self-reported alexithymia would be negatively associated with expected positive support, an APIM with male and female TAS-20 scores entered as predictor variables and male and female SSII-E Pos scores entered as outcome variables (see Figure 5) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = 5.55$, $p = .06$; CFI = .44; RMSEA = .16 (90% confidence interval = 0 - .33)) indicated that the fit could be improved. As such, the model was re-estimated allowing the actor effects and partner effects to differ (i.e., a fully saturated model ($df = 0$)). The standardized (β) and unstandardized (B) regression weights for the saturated model are presented in Table 3.⁵

As can be seen in Table 3, hypothesis (4) was partially supported. There was a significant association between self-reported alexithymia and expected positive support for males, but not females. More specifically, greater alexithymia was associated with expecting to receive less support for males.

To test hypothesis (5) that support seekers' self-reported alexithymia would be positively associated with expected negative support, an APIM with male and female TAS-20 scores

⁵ This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

entered as predictor variables and male and female SSII-E Neg scores entered as outcome variables (see Figure 6) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = 0.64, p = .73$; CFI = 1.00; RMSEA = 0 (90% confidence interval = 0 - .17)) indicated an excellent fit. The standardized (β) and unstandardized (B) regression weights for the model are presented in Table 3.⁶

As can be seen in Table 3, hypothesis (5) was supported as self-reported alexithymia was associated with expected negative support. That is, greater alexithymia was associated with expecting more negative support.

Self-report alexithymia and performance-based emotion self-awareness. To test the association between self-reported alexithymia and performance-based emotion self-awareness, a Pearson r between TAS-20 scores and CEAS scores was calculated. Results showed a small inverse relationship between self-reported alexithymia and performance-based emotion self-awareness, $r(135) = -.20, p = .02$, in the overall sample. However, when examined separately, the association between these variables was at statistical significance for females ($r(68) = -.24, p = .05$) but non-significant for males ($r(67) = -.08, p = .54$).

Performance-based emotion self-awareness and global received support. To test hypotheses (6a) that performance-based emotion self-awareness would be positively associated with levels of self-reported received support and (6b) that performance-based emotion self-awareness would be positively associated with levels of partner-reported received support, an

⁶ This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

APIM with male and female CEAS scores entered as predictor variables and male and female BSSS-R scores entered as outcome variables (see Figure 7) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = 7.95, p = .02$; CFI = .62; RMSEA = .21 (90% confidence interval = .07 - .37)) indicated a significant lack of fit. As such, the model was re-estimated allowing the actor effects and partner effects to differ (i.e., a fully saturated model ($df = 0$)). The standardized (β) and unstandardized (B) regression weights for the saturated model are presented in Table 4.⁷

As can be seen in Table 4, hypothesis (6a) was not supported. Contrary to prediction, there was a significant negative association between performance-based emotion self-awareness and self-reported received support for females and no significant association between the variables for males. Hypothesis (6b) was partially supported. There was a significant positive association between the variables for females reporting support received from their male partners.

Performance-based emotion self-awareness and global provided support. To test hypotheses (7a) that performance-based emotion self-awareness would be positively associated with levels of self-reported provided support and (7b) that performance-based emotion self-awareness would be positively associated with levels of partner-reported provided support, an APIM with male and female CEAS scores entered as predictor variables and male and female BSSS-P scores entered as outcome variables (see Figure 8) was estimated.

⁷ This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = .69, p = .71$; CFI = n/a⁸; RMSEA = 0 (90% confidence interval = 0 - .18)) indicated an acceptable fit. The standardized (β) and unstandardized (B) regression weights are presented in Table 4.⁹

As can be seen in Table 4, hypothesis (7a) and (7b) were not supported. That is, there was no significant association between performance-based emotion self-awareness and self-reported provided support.

Performance-based emotion self-awareness and received support satisfaction. To test hypotheses (8a) that performance-based emotion self-awareness would be positively associated with received support satisfaction and (8b) that performance-based emotion self-awareness would be positively associated with partners' satisfaction with received support, an APIM with male and female CEAS scores entered as predictor variables and male and female BSSS-R Satisfaction scores entered as outcome variables (see Figure 9) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = 1.01, p = .60$; CFI = n/a¹⁰; RMSEA = 0 (90% confidence interval = 0 - .20)) indicated an acceptable fit.

⁸ AMOS did not report the CFI value. This is likely because the actual value was less than zero. As the CFI is calculated by comparing the estimated model against the baseline model (in which all variables in the model are assumed to be uncorrelated), CFI of less than or equal to zero is an indication that the baseline model provides a reasonable fit to the data (i.e., there are no significant correlations between the variables). In these cases the CFI is not interpretable.

⁹ This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

¹⁰ AMOS did not report the CFI value. This is likely because the actual value was less than zero. As the CFI is calculated by comparing the estimated model against the baseline model (in which all variables in the model are assumed to be uncorrelated), CFI of less than or equal to zero is an indication that the baseline model provides a reasonable fit to the data (i.e., there are no significant correlations between the variables). In these cases the CFI is not interpretable.

The standardized (β) and unstandardized (B) regression weights for this model are presented in Table 4.¹¹

As can be seen in Table 4, hypotheses (8a) and (8b) were not supported. There were no significant associations between performance-based emotion self-awareness and received support satisfaction.

Performance-based emotion self-awareness and interaction specific social support.

To test hypothesis (9) that support seekers' performance-based emotion self-awareness would be positively associated with expected positive support, an APIM with male and female CEAS scores entered as predictor variables and male and female SSII-E Pos scores entered as outcome variables (see Figure 10) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = 3.37, p = .19$; CFI = 0; RMSEA = .10 (90% confidence interval = 0 - .28)) indicated the model fit could be improved. As such, the model was re-estimated allowing the actor effects and partner effects to differ (i.e., a fully saturated model ($df = 0$)). The standardized (β) and unstandardized (B) regression weights for the saturated model are presented in Table 4.¹²

As can be seen in Table 4, hypothesis (9) was not supported. There were no significant associations between performance-based emotion self-awareness and expected positive support.

To test hypothesis (10) that support seekers' performance-based emotion self-awareness would be negatively associated with expected negative support, an APIM with male and female

¹¹ This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

¹² This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

CEAS scores entered as predictor variables and male and female SSII-E Neg scores entered as outcome variables (see Figure 11) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(2) = 2.77, p = .25$; CFI = .92; RMSEA = .08 (90% confidence interval = 0 - .26)) indicated an acceptable fit. The standardized (β) and unstandardized (B) regression weights for the model are presented in Table 4.¹³

As can be seen in Table 4, hypothesis (10) was supported, as performance-based emotion self-awareness was associated with expected negative support. That is, greater emotion self-awareness was associated with expecting less negative support.

Interaction between partners' self-reported alexithymia predicting interaction specific emotional support. To test hypothesis (11) that support seekers' alexithymia would interact with support providers' emotion self-awareness to predict expected emotional support, an APIM with male and female TAS-20 scores and an interaction variable between self and partner TAS-20 scores entered as predictor variables and male and female SSII-E E scores entered as outcome variables (see Figure 12) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(3) = 6.27, p = .10$; CFI = 0.99; RMSEA = 0.13 (90% confidence interval = 0 - .27)) indicated an acceptable fit. The unstandardized (B) regression weights for the model are presented in Table 3.

As can be seen in Table 3, hypothesis (11) was partially supported. Although the interaction between support seekers' alexithymia and support providers' alexithymia did not reach statistical significance in predicting expected emotional support, there was a trend in this

¹³ This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

direction. A graphical representation of this interaction is provided in Figure 13. When support seekers were high in alexithymia (i.e., 1 SD above the sample mean), they reported expecting to receive similar levels of emotional support regardless of their partners' level of emotion self-awareness. When support seekers were low in alexithymia (i.e., 1 SD below the sample mean), they expected more emotional support from partners low in alexithymia and less support from partners high in alexithymia.

Interaction between partners' performance-based emotion self-awareness predicting interaction specific emotional support. To test hypothesis (12) that support seekers' performance-based emotion self-awareness would interact with support providers' performance-based emotion self-awareness to predict expected emotional support, an APIM with male and female CEAS scores and an interaction variable between self and partner CEAS scores entered as predictor variables and male and female SSII-E E scores entered as outcome variables (see Figure 14) was estimated.

Examination of the goodness-of-fit indices for this constrained model ($\chi^2(3) = 2.80, p = .42$; CFI = 1.00; RMSEA = 0 (90% confidence interval = 0 - .20)) indicated an excellent fit. The unstandardized (B) regression weights for the model are presented in Table 4.¹⁴

As can be seen in Table 4, hypothesis (12) was supported. The interaction between support seekers' emotion self-awareness and support providers' emotion self-awareness was positively associated with expected emotional support. A graphical representation of this interaction is provided in Figure 15. When support seekers were low in emotion self-awareness (i.e., 1 SD below the sample mean), they reported expecting to receive similar levels of

¹⁴ This model was also examined with age and relationship length added as predictors. There were no meaningful differences from the results as presented.

emotional support regardless of their partners' level of emotion self-awareness. When support seekers were high in emotion self-awareness (i.e., 1 SD above the sample mean), they expected more emotional support from partners high in emotion self-awareness and less support from partners low in emotion self-awareness.

Discussion

Alexithymia is a personality trait characterized by difficulty identifying and describing emotions. For the present study, I sought to investigate whether alexithymia disrupts the quality of support interactions in the context of committed romantic relationships. Although many investigators consider the identification of factors that underlie social support receipt and provision to be an important area of research (e.g., Devoldre et al., 2010; Lakey et al., 2002; Verhofstadt, Buysse, & Ickes, 2007), there remains a general paucity of research in the area. The role that emotion-related factors (e.g., emotional similarity and empathic accuracy) play in social support in romantic relationships has received some attention; however, the present study was the first to examine associations between alexithymia and perceived social support receipt and provision in romantic relationships from a dyadic perspective.

Although the overarching goal of the present study was to better understand the role of alexithymia in social support transactions between romantic partners, I also wanted to clarify the appropriateness/suitability of the measure of alexithymia most often used in past research. Nearly all past studies of alexithymia in social contexts have utilized a self-report measure, the TAS-20, to assess the construct (e.g., Lumley et al., 1996; Mallinckrodt & Wei, 2005; Pandey et al., 2000; Posse et al., 2002). To investigate whether this measure taps into an individual's ability to identify and describe their own emotions, I compared scores on the TAS-20 to performance on a task (i.e., CEAS) which requires individuals to identify and describe emotions they would feel in a given situation with their partner. The results showed that although the two measures were significantly correlated, the magnitude of the correlation was low. Given this relatively modest correlation between the two measures ($r = -.20$) they do not appear to be tapping into the same construct. The findings are consistent with one earlier study of young adults that simultaneously

tested multiple measures of alexithymia, including self-report (TAS-20) and performance-based (LEAS) and found a low association between the measures (Lumley, Gustavson, Partridge, & Labouvie-Vief, 2005).

Further evidence for the perspective that the TAS-20 and the CEAS are measuring distinct constructs is the pattern of results found between these variables and indices of global social support. More specifically, when examining associations between the TAS-20 and global support, greater self-reported alexithymia was associated with less received support, less satisfaction with support received, and the provision of less support to their partners. However, in examining associations between the CEAS and indices of global social support, most were not significant. The weak correlation between the TAS-20 and CEAS, as well as the different pattern of correlations between each of these measures and facets of spousal support, suggest that the self-report and performance-based measures are assessing different underlying constructs. For reasons discussed below, I argue that the TAS-20 measures one's beliefs and perceptions about the degree of emotion self-awareness possessed, rather than a skill deficit. In other words, the TAS-20 taps into an alexithymic self-schema, rather than assessing actual deficits in emotion self-awareness. These two constructs (i.e., alexithymia and alexithymic self-schema) are related, as evidenced by the significant association, but cannot be considered to be interchangeable.

Support for the idea that the TAS-20 may not capture deficits in ability emerges from several perspectives. First, there is a conceptual challenge related to self-reporting characteristics such as alexithymia that, by definition, involve limited or impaired introspection (Lane, Ahern, Schwartz, & Kaszniak, 1997; Lundh, Johnsson, Sundqvist, & Olsson, 2002). Although the efficiency of self-report measures and the belief that self-reports provide the best access to one's own psychological processes have led to the popularity of self-report measures (Lumley, Neely,

& Burger, 2007), relying on self-report to assess constructs that relate to skill/ability, such as emotional self-awareness, may be limiting. Additionally, alexithymia is commonly conceptualized as a lack of skill and psychological research has traditionally used performance measures to assess how skilled a person is.

The perspective that self-reports of alexithymia and performance-based measures of alexithymia measure different underlying constructs is also supported by literature in others areas. For example, self-reports of communication and observed communication tend to be weakly correlated (e.g., McCroskey & McCroskey, 1988). Similarly, perceptions of parental responsiveness tend to be weakly associated, if at all, with observed parental responsiveness (Roi & Theiss, 2014). The literature on executive functioning also suggests that collateral observational ratings of functional ability are better correlated with actual measures of executive functioning than self-report measures are in older adults (Mitchell & Miller, 2008). In each of these areas of study, results obtained from self-report measures are posited to more accurately assess self-perceptions of the construct of interest rather than actual ability.

Based on the data demonstrating a low correlation between the TAS-20 and the CEAS, as well as the reasoning discussed above, I believe that the TAS-20 is best conceptualized as a measure of an alexithymic self-schema. That is, it assesses the degree to which an individual views herself as someone who is skilled at understanding, differentiating and labeling her own emotional experience (e.g., “I don’t know what’s going on inside me,” “When I am upset, I don’t know if I am sad, frightened, or angry,” and “It is difficult for me to find the right words for my feelings”, respectively). The items on the TAS-20 are worded in a manner that is consistent with other measures designed to assess a facet of an individual’s self-concept. More specifically, self-concept is a multi-dimensional construct that encompasses schemas one has developed about the

self (Stein, 1995). These self-schemas are stable beliefs about the self that integrate one's thoughts, feelings and experiences in specific domains. One's self-concept includes beliefs about the self that are related to any domain that the individual considers to be important and can include aspects such as physical characteristics, personality traits, skills or abilities, and social roles. For example, an individual may have a self-concept based on self-schemas of being physically fit, neurotic, musically inclined, and a loner. Importantly, although these self-schemas are shaped by past experience they are also thought to regulate future behaviour. For example, Kendzierski (1990) found that individuals who had an 'exerciser' self-schema worked out more frequently than those without such a schema.

Thus far, I have argued that the self-report measure (TAS-20) is likely assessing an alexithymic self-schema rather than the actual ability to identify and describe one's own emotions. However, it is possible that the low correlation between the TAS-20 and the CEAS as well as the low correlation between the CEAS and social support variables may reflect limitations of the performance-based measure used in the current study. For example, individuals who score high on the TAS-20 may be able to identify and describe the emotion they are experiencing, but it may take them longer to process the emotional experience than is ideal in a given interpersonal interaction. In the present study, there were no time constraints during the performance-based measure of emotion self-awareness. Individuals were allowed as much time as they needed to respond to the question of how they would feel in the hypothetical situation and they were prompted to provide additional information even after they had provided an initial response.

However, in light of a past study also showing a weak association between self-report and performance-based measures of alexithymia, despite using different measures and a different

type of sample, and the fact that there was a range of scores on the CEAS in the present study, suggesting that the measure was not compromised by ceiling or floor effects, it is difficult to attribute this finding to the limitation of the performance-based measure. Most likely, scores on the self-report measure reflect a self-schema that is developed, in part, by one's performance in social support situations as well as other factors, such as relationship quality and stability. Indirect support for this perspective comes from data showing that scores on the TAS-20 are significantly associated with overall relationship satisfaction whereas scores on the CEAS are not. Although the TAS-20 does not appear to tap into alexithymia, but rather an alexithymic self-schema, the data suggest that endorsing such a self-schema is associated with personally and interpersonally meaningful and relevant outcomes, as evidenced by the findings for the link between TAS-20 scores and social support variables.

Another goal of the present study was to extend findings from previous research on self-reported alexithymia and perceptions of social support. In light of the discussion above, noting that the TAS-20 is better conceptualized as a measure of an alexithymic self-schema, I will discuss the findings on social support from that perspective, rather than from the perspective that the TAS-20 assesses an individual's level of alexithymia. Past studies have demonstrated that individuals who score higher on the TAS-20 tend to perceive less support in their social environment as compared to individuals with lower scores (e.g., Lumley et al., 1996; Pandey et al., 2000). In the present study, I replicated this finding and extended it in two ways. First, I was able to show that the negative association between the TAS-20 and perceived social support found in past studies extends to perceptions of support provided by intimate partners. That is, individuals with elevated scores on the TAS-20 reported receiving less support from their romantic partners as compared to individuals who perceived themselves as having less difficulty

identifying and describing emotions. This finding is particularly important given that the relationship with one's romantic partner is one of the most, if not the most, prominent and salient relationship in an adult's life (Hazan & Zeifman, 1994). Consequently, romantic partners are an important source of social support (e.g., Julien & Markman, 1991) such that support from other sources does not compensate for a lack of support from one's partner (e.g., Brown & Harris, 1978). As such, increasing our understanding of factors, such as alexithymic self-schemas, that may hinder the utility of social support within romantic dyads is critical for developing a better understanding of what leads to the success or failure of these committed relationships.

As noted above, the finding that elevated scores on the TAS-20 are associated with perceiving less support from a romantic partner is consistent with past research (e.g., Lumley et al., 1996). However, my interpretation of this association is different from the interpretation offered in previous studies. In light of the discussion of the TAS-20 tapping into an alexithymic self-schema, I understand this finding in the context of past literature on how self-schemas are developed, maintained, and modified. Consistent with other work on self-schemas, I would predict that a range of sources including, but not limited to, the quality of support interactions with significant others in an individual's life as well as actual skills at understanding and communicating own emotional states, play a role in the development of an alexithymic self-schema. Over time, such a self-schema would be expected to shape how an individual interprets information from the social world. The data support the idea that such self-perceptions predict an individual's experience of support received from the partner. Given the correlational nature of this study, I cannot establish any directionality for this effect. However, as noted, studies on other types of self-schemas would suggest that this would be a bidirectional association with ability and experiences shaping the development of a schema and the schema, in turn, modifying

subsequent experiences.

The present study built on past social support and TAS-20 research in a second important way. By gathering data from both partners and asking each to report on the support they received as well as the support they provided, I was able to examine whether self-identified alexithymic individuals' perceptions of receiving less support from others in their social environment is consistent with the support partners report providing. The results showed that partners of individuals with an alexithymic self-schema reported providing less support. This finding suggests that it is not that self-identified alexithymic individuals do not perceive support when it is provided; rather, these individuals' reports of lower levels of received support from their partners are corroborated by their partners.

One potential explanation for partners of individuals with alexithymic self-schemas providing less support is the notion of "assortative mating". Assortative mating is a non-random mating pattern in which individuals with similar characteristics mate with one another more frequently than would be expected under a random pattern (Thiessen & Gregg, 1980). That is, there is a greater likelihood that committed relationships will develop between individuals when they share a particular trait. Within the context of the present study, assortative mating would suggest that individuals with an alexithymic self-schema would tend to be more successful in establishing committed relationships with others who also perceive themselves as having deficits in their ability to identify and describe emotions. In this case, given the pattern of results observed for individuals with greater TAS-20 scores, both partners would be expected to provide less support to, and receive less support from, one another. Although this explanation is intuitively appealing, it does not hold true for the present study given that there were no significant correlations between partners' levels of self-reported alexithymia.

A more likely explanation for partners providing less support relates to the tendency toward an externally-oriented style of thinking associated with an alexithymic self-schema which may mean that providing support for these individuals is not always a simple or straightforward task. More specifically, in addition to difficulty identifying and describing emotions, the TAS-20 assesses one's preference for a style of describing events and relating to others where the focus is on external, objective facts rather than introspecting about one's own feelings about a given experience (Taylor & Bagby, 2000b). For example, externally-oriented thinkers prefer not to analyze problems or how their feelings relate to problems, they prefer 'light' entertainment, and they tend to focus on daily activities rather than feelings. As such, when asked how their day was, externally-oriented thinkers would be more likely to describe the various tasks they engaged in rather than indicating that they had experienced stress from their workload or felt frustrated by not being able to complete tasks. In these situations, it might be difficult to provide support that would be perceived as helpful by the individual with an alexithymic self-schema. As an illustration, if during a given exchange an individual indicates that they were unable to complete an important task at work, their partner may recognize from past interactions, that instrumental support to assist in solving the problem would be most helpful. While the partner of a non-alexithymic individual might opt to offer encouragement or reassurance when they do not have a specific suggestion to offer in solving the problem, the partner of an individual with an alexithymic self-schema may recognize that this type of support would not be found useful and may opt not to provide it. As such, the partner of an individual with an alexithymic self-schema may notice that there is a need for support, but be unable to provide support that would be received as such by the partner.

In addition to examining perceptions of support provision and receipt, I examined satisfaction with received support. Consistent with previous studies, the results showed that individuals with elevated scores on the TAS-20 were less satisfied with the support they received. However, this result did not hold true for partners. Despite both self- and partner-reports of individuals with alexithymic self-schemas providing less support, the partners were not less satisfied with the overall level of support they received. It is important to remember that the sample consisted of individuals in long-term committed relationships. Accordingly, the dyads had at least one full year of cohabitation to adapt to their partners' behaviour. Over time, partners of individuals who self-identify as alexithymic may adjust their expectations so as not to be continually disappointed by the partner. More specifically, individuals may learn in the early stages of the relationship that their partners, who self-identify as alexithymic, are less willing or able to provide greater levels of support. They may then come to accept this level of support as characteristic of their partners and be satisfied with the level of support their partners are able to provide. As such, their global assessment of the satisfaction they feel about the support provided by the partner may reflect this lowered expectation.

Related to this notion, the lack of association between levels of partners' support and satisfaction with support may also be an example of the "global sentiment override" phenomenon (Weiss, 1980). According to this perspective, the overall sentiment toward the relationship acts as a filter through which partner behaviours are interpreted and understood. Much like the idea of rose-coloured glasses, spouses with positive sentiment override tend to interpret their partners' behaviours positively, regardless of how the behaviour is judged by observers while spouses with negative sentiment override have the opposite perceptual filter (Hawkins, Carrere, & Gottman, 2002). In the present study, participants were generally very

satisfied with their relationships. As such, it may be that they engaged in a positive sentiment override, which counteracted the lower levels of received support when they were considering their satisfaction with the support received (Hawkins et al., 2002). Although there was an association between received support and satisfaction with support for individuals with an alexithymic self-schema, it may be that global sentiment override does not apply to the same degree to when individuals tend to focus on external events (e.g., behaviours) rather than internal experiences (e.g., emotions). That is, individuals who focus less on emotional experiences may be less susceptible to their beliefs being impacted by sentimental considerations such as positive feelings about the relationship.

The present study also extended past work on alexithymia and social support by examining associations between elevated scores on the TAS-20 and expectations for support for a specific, concrete issue, in contrast to global ratings of support receipt. I assessed this by asking individuals to identify significant personal goals (e.g., adopting a healthier lifestyle; pursuing a more fulfilling career) and to rate the degree to which they would expect positive and negative offers of support from their partner during a discussion related to the goal that they considered to be of greatest personal importance. As predicted, higher TAS-20 scores were associated with expecting to receive more negative support. Males with higher TAS-20 scores also reported expecting less positive support but this association was not found among women. One possible explanation for these findings is that individuals with an alexithymic self-schema have experienced a history of interpersonal difficulties and have come to expect that they will be less successful in obtaining positive, healthy support from their partners. As discussed earlier with respect to the global measures, it may also be difficult to engage in supportive interactions with a partner who has an alexithymic self-schema because support providers are not able to determine

how to satisfactorily support the individual. As such, support providers may make fewer offers of positive support in a given exchange. Similarly, the support provider may become frustrated in their attempts to provide support and end up making more offers of negative support as a result.

In contrast to the TAS-20, an individual's performance on the CEAS did not relate, for the most part, to the social support outcome variables examined in the current study (exceptions discussed below). This pattern of finding suggests that, in the context of interpersonal relationships, perceptions of certain qualities can contribute more strongly to relationship outcomes, as compared to actual ability and skill level. Previous research has demonstrated that self-schemas provide a context in which people understand their own behaviour and serve as the basis for future behaviours (Sheeran & Orbell, 2000). Furthermore, LeMay (2014) has demonstrated that perceptions in relationships can be stronger predictors of outcomes than actual behaviours. More specifically, in his study of perceptions of responsive behaviour in relationships, LeMay (2014) found that when people perceived themselves as being more responsive to their partners, whether their actual behaviours were more responsive or not, they were more confident that they were valued by their partners and felt more secure in the relationship. Most importantly, however, support for the relevance of an alexithymic self-schema in social support outcomes comes from results of the current study which demonstrate that the alexithymic self-schema is associated with perceptions of support provision and receipt in romantic relationship. Although I did not directly test mechanisms in the present study, the data point to the possibility that individuals who perceive themselves to have alexithymia-related deficits may act in ways that are consistent with this perception. Given that behaviours associated with such a schema are negatively associated with successful support in relationships, if misperceptions regarding emotional ability are not corrected, they may lead to difficulties in

successfully maintaining the relationship over time. However, this premise would have to be directly tested in a longitudinal design before any definitive conclusions could be drawn.

Theoretically, a lack of understanding of one's own emotions would be expected to lead to difficulties in encoding, interpreting, and responding to interpersonal stimuli, thus making it difficult for an individual to respond effectively in support transactions (Halberstadt et al., 2001; Keltner & Kring, 1998). Contrary to expectations, I found that women who demonstrated lower emotion self-awareness in the performance-based measure reported receiving more support from their partners than women demonstrating greater emotion self-awareness. It may be that women with greater awareness are more discerning when it comes to the support they receive and thus, did not view their partners' behaviours as being as supportive. However, the general lack of associations between the CEAS and other social support variables in the present study suggest that there may be a more complex relationship between emotional skill and social support in committed romantic relationships. It may be that there is a baseline of ability that is a necessary pre-requisite to interacting effectively with one's partner in a supportive exchange and any skill above that level has minimal impact on the ability to provide effective support. It may also be that the experience of support receipt and provision in a given dyad is dependent on the interaction between both partners' level of ability such that deficits in one partner can be compensated for, or forgiven, by the other partner.

My final goal for the present study was to examine how partners' difficulties identifying and describing emotions interact with one another to impact expectations for social support interactions. Although previous research has shown that alexithymia is related to individual experiences of social support, no studies to date have examined how deficits in identifying and describing feelings might interact across dyads. This is an important area of investigation as

supportive interactions are not solitary events. They are a shared experience between two or more people. As such, there is an inherent level of interdependence in all support exchanges. Moreover, the present study focused on supportive interactions between partners in long-term committed relationships, which, in all likelihood, increased the overall level of interdependence. As such, I did not expect that each person's deficits would operate completely independently. Rather, I posited that the various constellations of alexithymia possible in partnerships (i.e., high alexithymic with low alexithymic, high with high, low with low) would differentially impact the supportive interaction.

My specific prediction that support providers' performance-based level of emotion self-awareness would interact with the support seekers' performance-based level of emotion self-awareness to determine how much emotional support was expected by the support seeker was supported. As predicted, support seekers who were high in emotion self-awareness reported expecting less emotional support from partners who were low in emotion self-awareness than from partners high in emotion self-awareness. Additionally, support seekers who were low in emotion self-awareness expected similar levels of emotional support from their partners regardless of their partners' level of emotional awareness. Similar results were found for the TAS-20. Although the results did not reach significance, there was a trend that mirrored the findings for the interaction between partners' scores on performance-based measure of alexithymia. Specifically, individuals with high TAS-20 scores reported expecting to receive similar levels of emotional support regardless of their partners' TAS-20 scores. However, individuals with low TAS-20 scores reported expecting to receive more emotional support from partners with low TAS-20 scores and less support from partners with high TAS-20 scores. Taken together these findings suggest that greater emotion self-awareness may be associated with the

ability to recognize the specific strengths and weaknesses one's partner may bring to the table with respect to the types of support they are able to provide. Furthermore, it seems that more emotionally self-aware individuals are able to set their expectations for support at a level that their partners are able to meet. This finding may also help to explain why an alexithymic self-schema was not associated with partners' satisfaction with support despite reporting less received support. As noted earlier, it may be that when an individual is able to manage their expectations for support based on their partner's ability, they are satisfied with the level of support that their partner is able to provide.

Limitations

There were a number of strengths of the present study, including that it investigated social support from a dyadic perspective and utilized a sample of community-based couples in committed relationships as well as examined the measurement of alexithymia using self-report and performance-based measures; however, there are also some limitations that should be noted.

One limitation was the relatively small sample size. Ideally, APIM analyses should be conducted with a sample of at least 100 dyads (Ackerman, Donnellan, & Kashy, 2011). The present study's sample size ($N = 69$ dyads) limited the statistical power to detect significant associations between the study variables. However, the pattern of results that I found helps to rule out the possibility that the lack of significant findings was due to low power. Specifically, I found that the self-report and performance-based measures were significantly correlated, even though the association was small in magnitude. Furthermore, an alexithymic self-schema was significantly associated with many indices of social support which I would not have found if the study was significantly underpowered.

The relatively homogenous nature of the sample limits the generalizability of the findings. Although the couples ranged in age and length of relationship, the sample consisted of primarily Caucasian dyads from a limited geographic area (i.e., Kitchener Waterloo) that were generally satisfied with the social support received from their partners. Future studies should endeavour to obtain a more diverse sample.

Additionally, the self-report measure used to assess expected support was created for the present study. Although the items were based on the empirically validated Social Support Interaction Coding System (Pasch, Harris, Sullivan, & Bradbury, 2004), the Social Support Interaction Inventory used in the present study has not been previously validated.

Finally, a significant limitation of all correlation studies, such as mine, is the inability to draw any conclusion regarding causality. That is, although I identified associations between alexithymia and social support, the cross-sectional nature of the data did not allow for an examination of whether alexithymia causes the reported difficulties in social support.

Implications

Despite these limitations, results of the present study have important theoretical and clinical implications for social support and the alexithymia construct. Theoretically, results from the present study have implications for how I understand the role of emotions in social support as well as social interactions more broadly. More specifically, theories generated to account for the role of emotion in interpersonal exchanges (e.g., Halberstadt et al., 2001; Keltner & Kring, 1998) emphasize the role that emotional abilities or skill play in these interpersonal interactions. However, results from the present study suggest that it is also important to consider perceptions of ability in our understanding of the role of emotions in interpersonal exchanges. Consistent with LeMay (2014), the associations found between the self-report measure and social support

outcomes combined with the general lack of findings between the performance-based measure of emotion self-awareness and the social support measures in the present study suggest that perceptions of one's abilities may, in fact, be of greater importance when predicting outcomes than actual ability.

Results from the present study also suggest that when emotional ability is considered in the context of interpersonal interactions, it is important to consider the level of skill of each of the participants in the interaction given that the different constellations of ability interact to predict differences in outcomes. Additionally, the finding of a significant interaction between partners' scores speaks to the importance of examining the interdependence of data collected from both partners in studies of relationships. That is, it is not sufficient to examine relationship outcomes using only data collected from one partner or to analyze data from both partners without consideration to the interdependence between their reports.

Clinically, the results of the present study suggest that the alexithymia construct, both self-perception and skill-based, is an area that warrants attention in couples' therapy, particularly when support-related concerns are a focus of treatment. More specifically, many couples that seek treatment indicate that a major source of distress in their relationship is a lack of support and/or lack of understanding of how they are feeling from their partners (e.g., Verhofstadt et al., 2007). Including measures of the perceived and actual ability to identify and describe emotions during the assessment phase of treatment may help identify individuals who are experiencing difficulties that can be addressed in treatment. As the results from LeMay (2014) suggest, perceptions are important in determining outcomes of relationships. As such, helping individuals develop more accurate perceptions of their emotional abilities related to support exchanges may lead to partners feeling more supported. Additionally, treatment approaches that focus on

increasing emotional skill have demonstrated some success in improving the quality of romantic relationships (e.g., Emotional Focused Couples Therapy; Johnson & Greenberg, 1985). Although alexithymia is conceptualized as a relatively stable personality trait, studies have found that the associated deficits can be improved with specific training (e.g., Rad, Zargar, & Honarmand, 2014). Furthermore, given the finding of an interaction between partners' levels of emotion self-awareness, it would be important to be aware of the level of ability demonstrated by each partner so that treatment can be tailored to the needs of the specific dyad.

Future Directions

In the present study, I showed that an alexithymic self-schema was associated with interpersonally relevant outcomes; however, it does not speak to the question of how such a schema develops. It may be that higher scores on the TAS-20 are an outcome of difficult interpersonal interactions and support interactions gone awry, rather than the reverse. That is, it may be that individuals who have difficulty in their social interactions develop a self-schema about being poor at recognizing and understanding their own emotions even when there is not a demonstrable lack of ability. Understanding how such a self-schema develops can aid in the development of strategies to prevent and/or treat such negative self-schemas.

The current study also does not address motivation with respect to understanding and/or relying on emotional experiences. It is possible that scores on the CEAS tap into high versus low motivation to understand one's own emotional experience, rather than the ability to do so. The CEAS consists of a set of standard stimuli that present hypothetical situations that couples might realistically expect to experience at some point in their relationships. Although giving people actual scenarios from their own life may increase the realism and relevance of the scenario, the lack of standardization would make it difficult to compare across participants. One method that

could be used to examine the role of increased motivation without compromising stimuli standardization would be to use some type of reward (e.g., monetary reward) for number of correct references (e.g., Ma-Kellams & Blascovich, 2013). It would be useful to randomly assign individuals to either a reward or non-reward condition and compare the association between self-reported alexithymia and scores on a performance-based measure across the two conditions. If the reward manipulation worked, this design could help to tease apart the ability versus motivation components of the performance-based measures.

Although results from the present study that partners' reports of support provision are consistent with reports of support received by individuals with an alexithymic self-schema and suggest that these individuals are accurate in their reporting of support; given the self-report nature of these measures, they are subject to bias. As such, future studies should also incorporate observational data in an effort to more fully understand the role that alexithymia and alexithymic self-schemas play in social support. More specifically, observer ratings of the types and quantity of support provided and received in a supportive exchange between partners could be used to more objectively assess whether individuals with deficits in emotion self-awareness or alexithymic self-schemas provide less support to their partners and/or receive less support from their partners. Similarly, observer ratings could be compared to self-report ratings to evaluate accuracy in reporting received and provided support.

Conclusions

The present study was the first to examine associations between alexithymia and perceptions of social support receipt and provision from a dyadic perspective in romantic relationships. I examined the relationship between self-report and performance-based measures of alexithymia and determined that the low correlation between the measures and a lack of

consistency with respect to how the measures each related to indices of social support suggested that they were not measuring the same construct. In examining potential reasons for this lack of consistency, I posited that the self-report measure was not assessing alexithymia per se; rather it more likely assessed a self-schema developed over time through one's performance in social support situations.

Although performance-based emotion self-awareness did not relate, for the most part, to the social support outcome variables under investigation, I was able to demonstrate that the alexithymic self-schema was associated with perceiving less support from romantic partners, being less satisfied with the support received, and expecting less positive and more negative support from partners. I also found that individuals who self-identified as alexithymic were accurate in their perception of lower levels of support based on their partners' report of providing less support. Further, I found that despite individuals with greater self-reported alexithymia providing less support to their partners, partners were not less satisfied with the overall level of support received.

Finally, I examined the impact of interdependence on the role of alexithymia-related variables in supportive interactions. I found that partners' levels of emotion self-awareness, and to a lesser degree alexithymic self-schema, interacted to predict the amount of support expected in a given interaction. This finding suggests that greater emotion self-awareness is associated with the ability to recognize support-related strengths and weaknesses in our partners and to adjust our expectations based on this information.

Overall, the results of the present study suggest that alexithymic self-schema, in particular, is an area that warrants additional attention in research and possibly in couples' therapy, particularly when support-related concerns are a focus of treatment. Additionally,

consideration for the interdependence that exists between partners is important when examining relationship outcomes. As the present study was the first to empirically examine associations between self-reported alexithymia, performance-based emotion self-awareness, and perceptions of social support receipt and provision from a dyadic perspective in romantic relationships, the results need to be replicated before any firm conclusions can be drawn.

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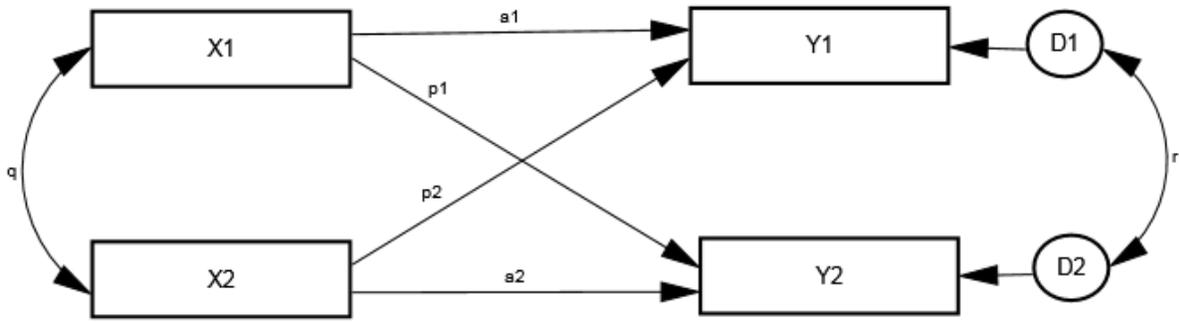


Figure 1. *Generic Actor-Partner Interdependence Model (APIM) for distinguishable dyads*

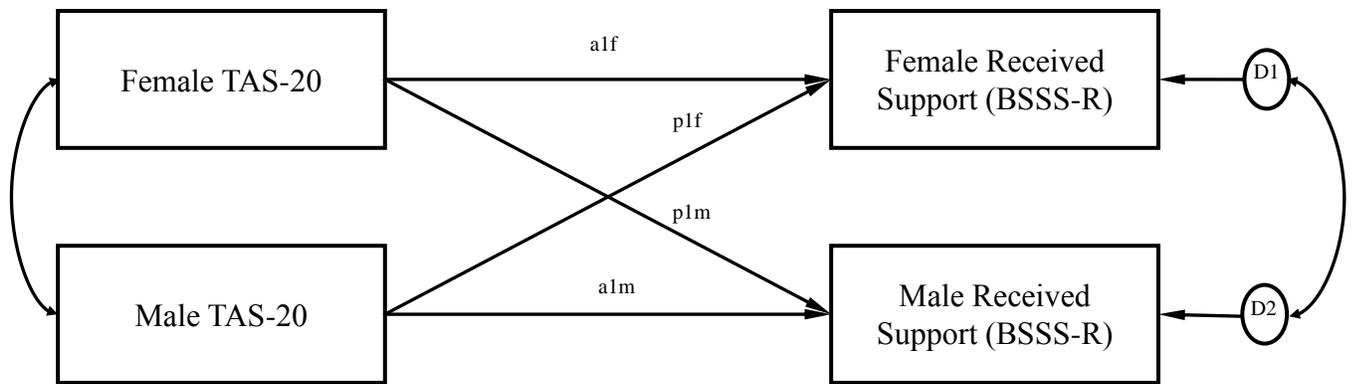


Figure 2. APIM examining associations between self-report alexithymia (TAS-20) and received support (BSSS-R)

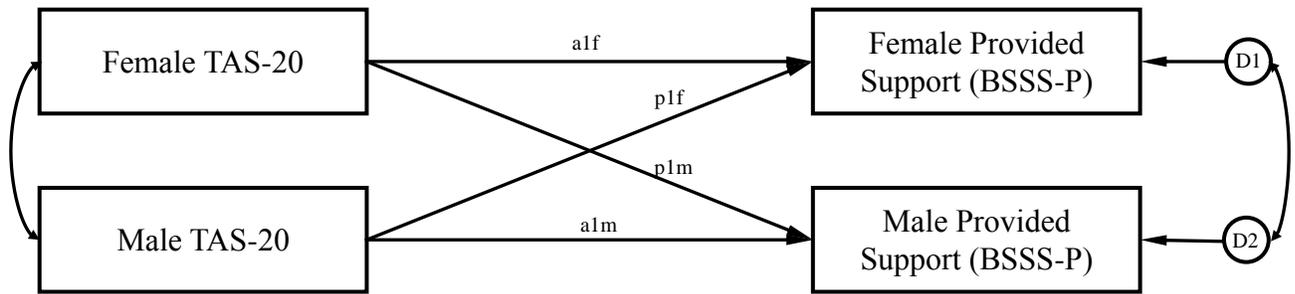


Figure 3. APIM examining associations between self-report alexithymia (TAS-20) and provided support (BSSS-P)

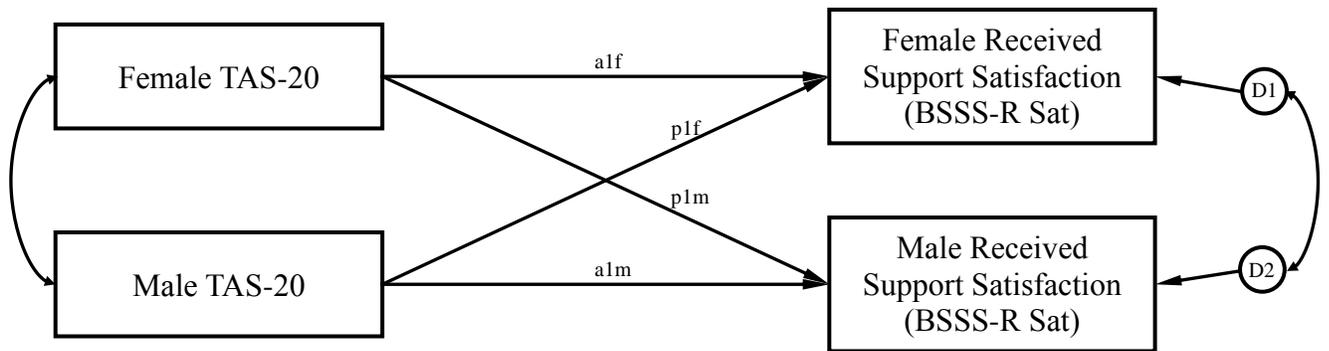


Figure 4. *APIM examining associations between self-report alexithymia (TAS-20) and received support satisfaction (BSSS-R Sat)*

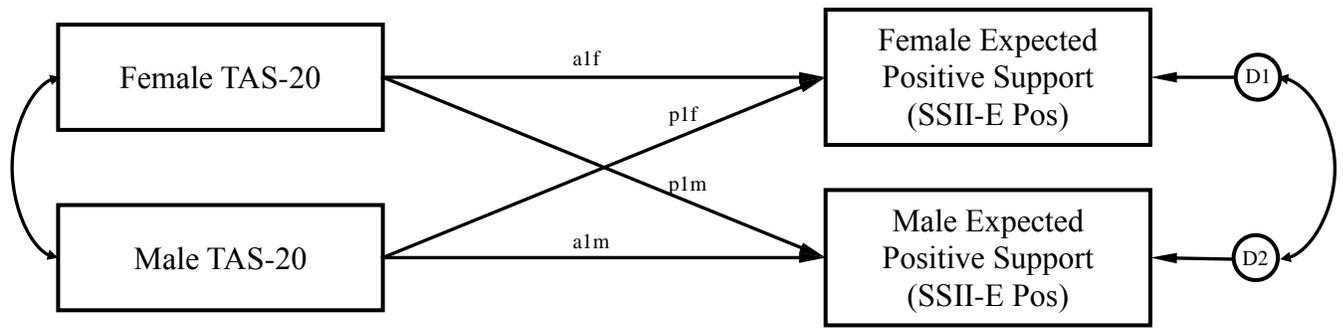


Figure 5. APIM examining associations between self-report alexithymia (TAS-20) and expected positive support (SSII-E Pos)

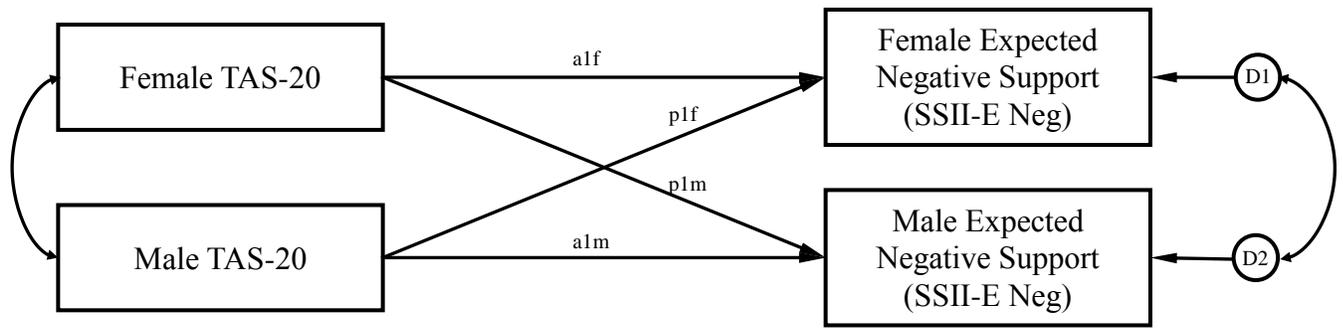


Figure 6. APIM examining associations between self-report alexithymia (TAS-20) and expected negative support (SSII-E Neg)

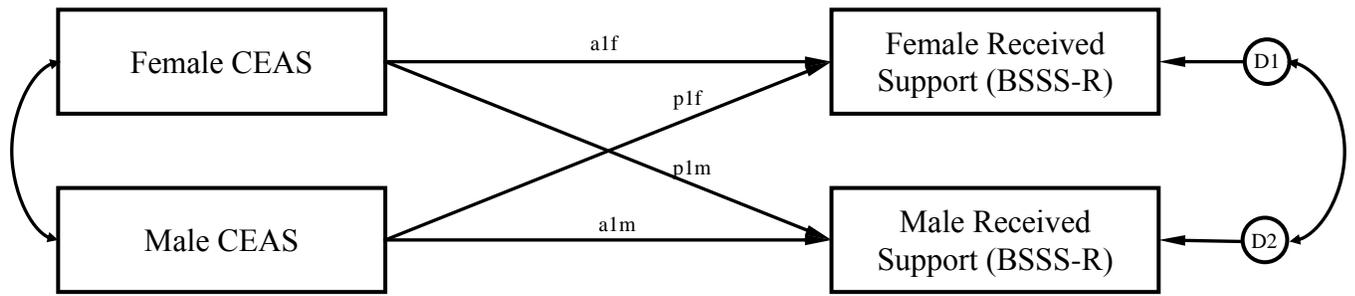


Figure 7. APIM examining associations between performance-based emotion self-awareness (CEAS) and received support (BSSS-R)

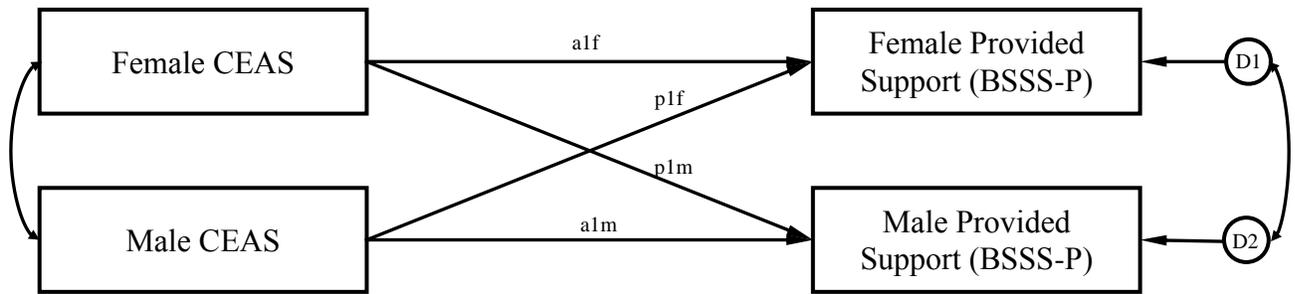


Figure 8. APIM examining associations between performance-based emotion self-awareness (CEAS) and provided support (BSSS-P)

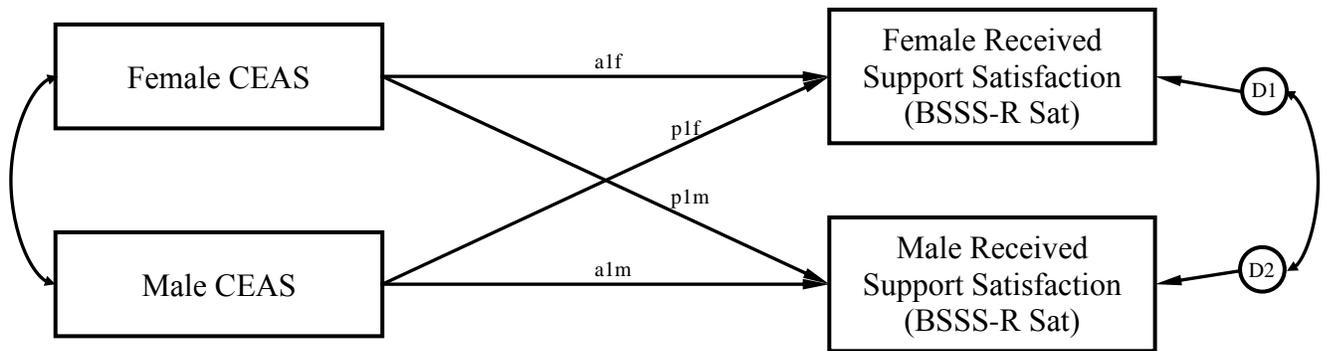


Figure 9. APIM examining associations between performance-based emotion self-awareness (CEAS) and received support satisfaction (BSSS-R Sat)

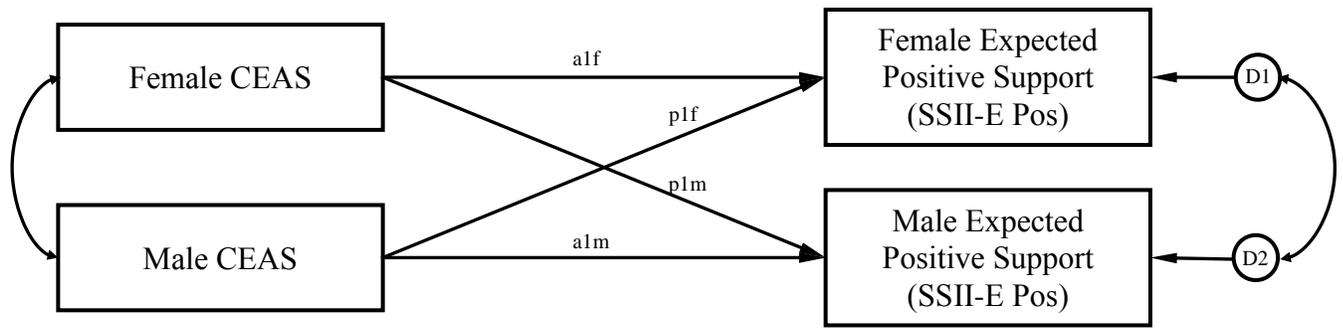


Figure 10. APIM examining associations between performance-based emotion self-awareness (CEAS) and expected positive support (SSII-E Pos)

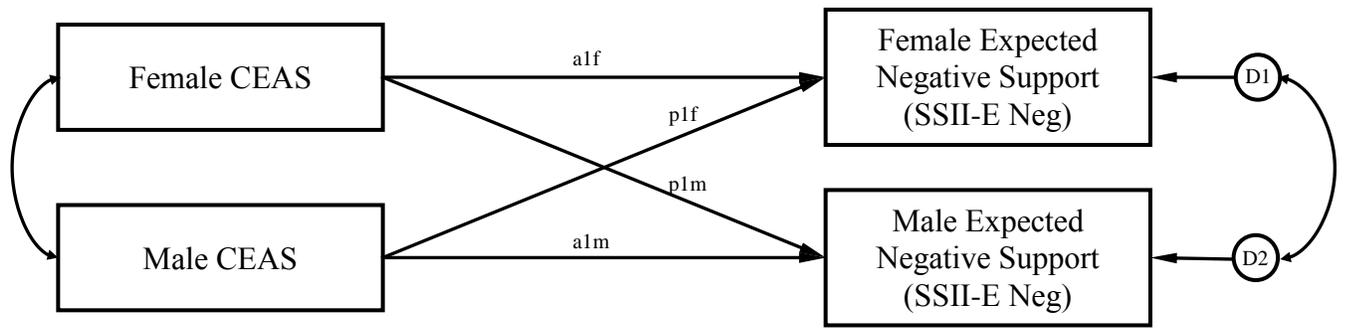


Figure 11. *APIM examining associations between performance-based emotion self-awareness (CEAS) and expected negative support (SSII-E Neg)*

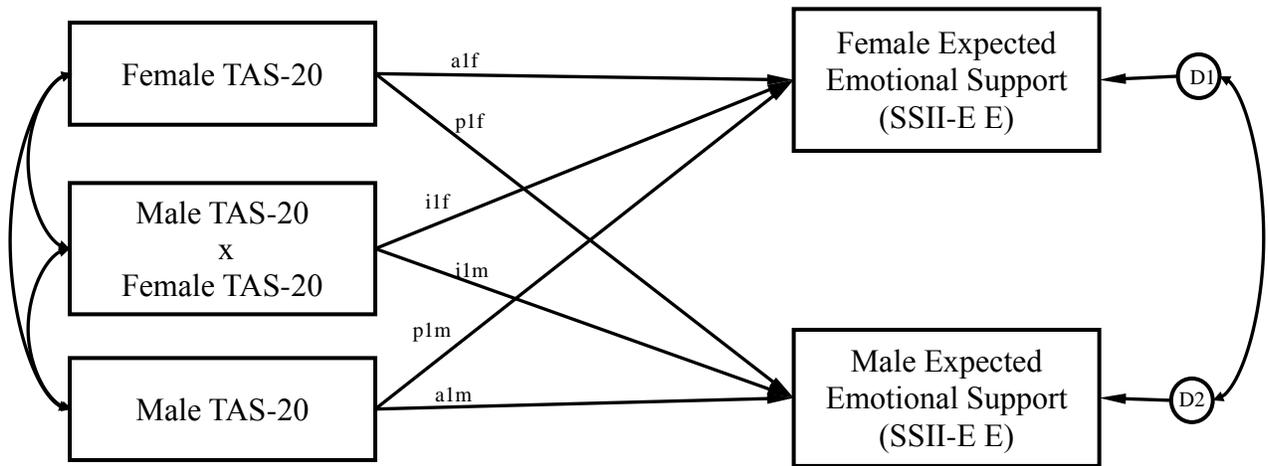


Figure 12. *APIM examining the impact of the interaction of partners' alexithymia (TAS-20) on expected emotional support (SSII-E E)*

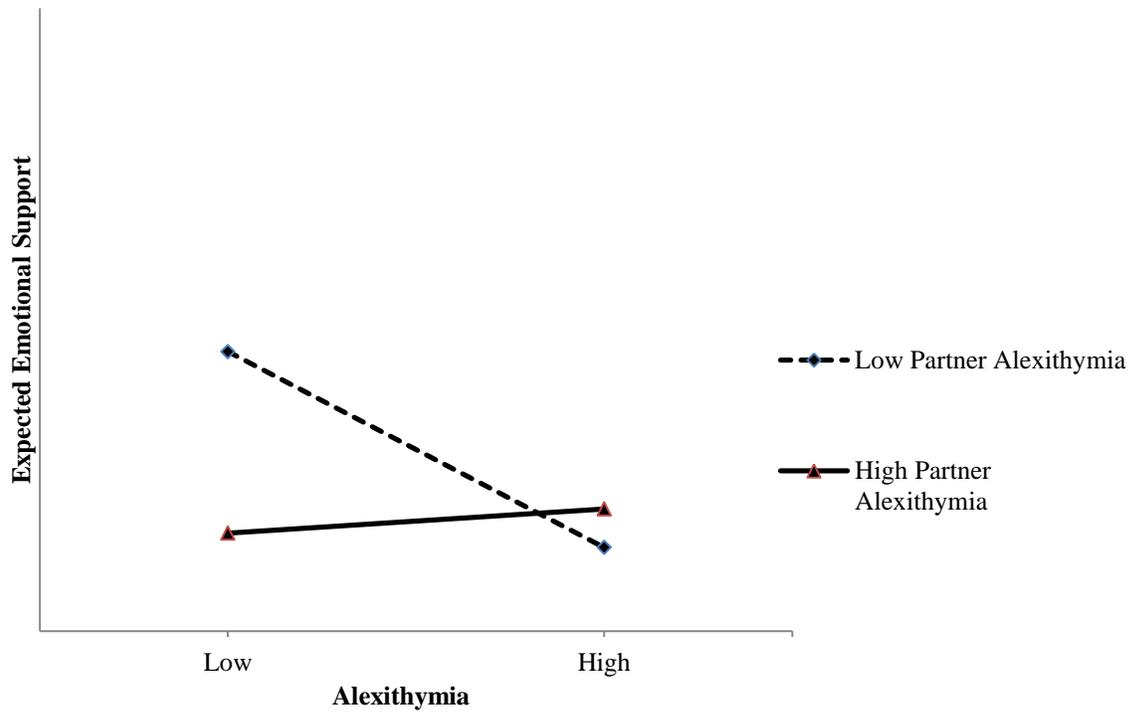


Figure 13. Levels of partners' alexithymia (TAS-20) and expected emotional support (SSII-E E)

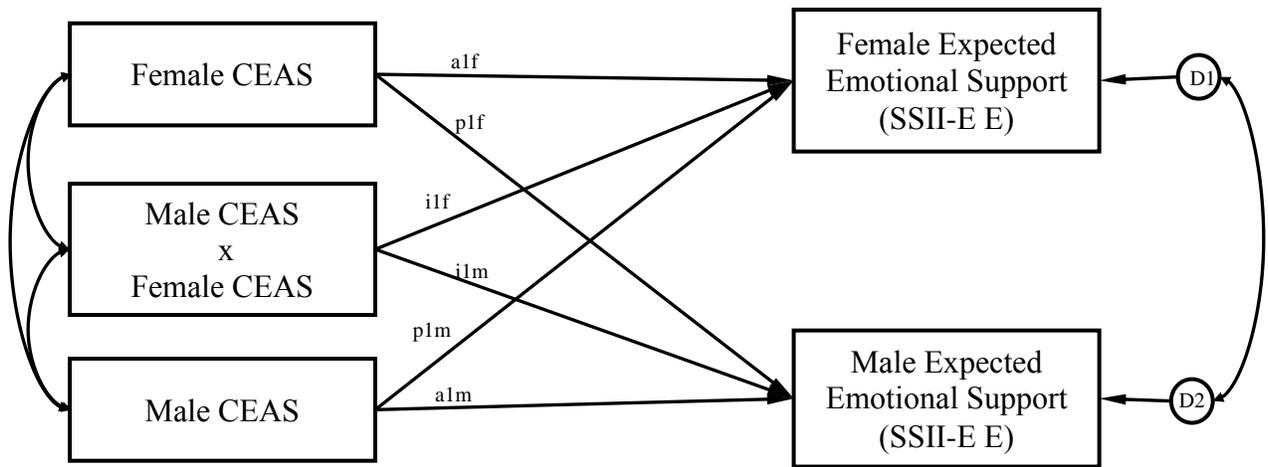


Figure 14. *APIM examining the impact of the interaction of partners' performance-based emotion self-awareness (CEAS) on expected emotional support (SSII-E E)*

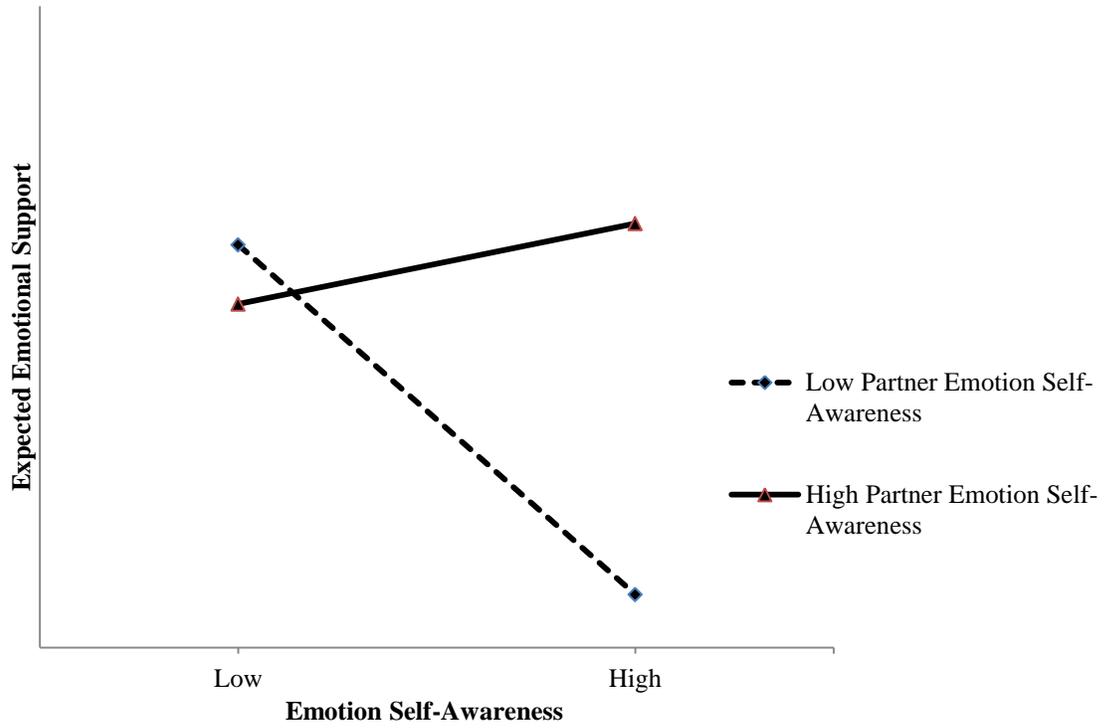


Figure 15. *Levels of partners' emotion self-awareness (CEAS) and expected emotional support (SSII-E E)*

Table 1. Means, standard deviations and gender differences between self-reported alexithymia, emotion self-awareness, and social support

	Total		Male		Female		<i>df</i>	<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Self-report Alexithymia (TAS-20)	44.46	11.70	46.79	11.06	42.19	12.00	66	2.32*
Emotion Self-awareness (CEAS)	32.07	7.36	30.38	7.08	33.78	7.34	67	-2.92*
Received Support-Past Week (BSSS-R)	44.81	7.34	46.61	6.39	43.18	7.87	65	3.61*
Received Support Satisfaction (BSSS-R Sat)	42.08	7.38	3.73	0.51	3.15	1.00	65	4.86**
Provided Support-Past Week (BSSS-P)	3.43	0.84	44.76	6.14	39.48	7.63	65	5.28**
Expected Positive Support (SSII-E Pos)	146.85	20.93	150.75	19.92	143.48	21.30	66	2.28*
Expected Negative Support (SSII-E Neg)	30.78	10.00	30.42	9.65	30.85	10.40	66	-.32
Expected Emotional Support (SSII-E E)	53.47	7.31	54.70	7.16	52.43	7.27	66	2.06*

* $p < .05$, ** $p < .001$

Table 2a. *Bivariate correlations between dependent and independent study variables by gender*

	Received Support (BSSS-R)	Received Support Satisfaction (BSSS-R Sat)	Provided Support (BSSS-P)	Expected Positive Support (SSII-E Pos)	Expected Negative Support (SSII-E Neg)	Expected Emotional Support (SSII-E E)
Male Alexithymia (TAS-20)	-.40**	-.19	-.45**	-.31*	.39**	-.39**
Male Emotion Self-Awareness (CEAS)	.02	.09	.04	.09	-.20	.13
Female Alexithymia (TAS-20)	-.10	-.30*	-.33**	-.01	.30*	.04
Female Emotion Self-Awareness (CEAS)	-.29*	-.08	.02	-.19	-.17	-.18

*p<.05, **p<.001

Table 2b. *Bivariate correlations between dependent and independent study variables*

	Emotion Self-Awareness (CEAS)	Received Support (BSSS-R)	Provided Support (BSSS-P)	Received Support Satisfaction (BSSS-R Sat)	Expected Positive Support (SSII-E Pos)	Expected Negative Support (SSII-E Neg)	Expected Emotional Support (SSII-E E)
Alexithymia (TAS-20)	-.20*	-.18*	-.28**	-.17	-.10	.33**	-.13
Emotion Self-Awareness (CEAS)		-.19*	-.05	-.09	-.10	-.17*	-.07
Received Support (BSSS-R)			.60**	.60**	.60**	-.34**	.62**
Provided Support (BSSS-P)				.50**	.46**	-.22**	.42**
Received Support Satisfaction (BSSS-R Sat)					.37**	-.30**	.39**
Expected Positive Support (SSII-E Pos)						-.30**	.90**
Expected Negative Support (SSII-E Neg)							-.40**

*p<.05, **p<.001

Table 3. Standardized (β) and unstandardized (B) regression weights and Standard Error (SE) for APIM examining associations of self-report alexithymia (TAS-20) with received support (BSSS-R), provided support (BSSS-P), received support satisfaction (BSSS-R Sat), expected positive support (SSII-E Pos), expected negative support (SSII-E Neg), and expected emotional support (SSII-E E)

	β	B	SE	p
Female TAS-20 to Female BSSS-R	-0.25	-0.16	0.05	0.00*
Female TAS-20 to Male BSSS-R	-0.20	-0.11	0.05	0.03*
Male TAS-20 to Male BSSS-R	-0.28	-0.16	0.05	0.00*
Male TAS-20 to Female BSSS-R	-0.15	-0.11	0.05	0.03*
Female TAS-20 to Female BSSS-P	-0.36	-0.23	0.05	0.00**
Female TAS-20 to Male BSSS-P	-0.18	-0.09	0.05	0.05*
Male TAS-20 to Male BSSS-P	-0.42	-0.23	0.05	0.00**
Male TAS-20 to Female BSSS-P	-0.13	-0.09	0.05	0.05*
Female TAS-20 to Female BSSS-R Sat	-0.16	-0.01	0.01	0.01*
Female TAS-20 to Male BSSS-R Sat	-0.07	-0.01	0.01	0.15
Male TAS-20 to Male BSSS-R Sat	-0.27	-0.01	0.01	0.01*
Male TAS-20 to Female BSSS-R Sat	-0.15	-0.01	0.01	0.15
Female TAS-20 to Female SSII-E Pos	-0.01	-0.01	0.22	0.95
Female TAS-20 to Male SSII-E Pos	-0.30	-0.50	0.19	0.01*
Male TAS-20 to Male SSII-E Pos	-0.30	-0.55	0.20	0.01*
Male TAS-20 to Female SSII-E Pos	-0.07	-0.14	0.24	0.55
Female TAS-20 to Female SSII-E Neg	0.34	0.31	0.07	0.00**
Female TAS-20 to Male SSII-E Neg	0.18	0.14	0.07	0.05*
Male TAS-20 to Male SSII-E Neg	0.36	0.31	0.07	0.00**
Male TAS-20 to Female SSII-E Neg	0.14	0.14	0.07	0.05*
Female TAS-20 to Female SSII-E E		-0.51	0.22	0.02*
Female TAS-20 to Male SSII-E E		-0.48	0.22	0.03*
TAS-20 Interaction to Female SSII-E E		0.01	0.01	0.07
TAS-20 Interaction to Male SSII-E E		0.01	0.01	0.07
Male TAS-20 to Male SSII-E E		-0.51	0.22	0.02*
Male TAS-20 to Female SSII-E E		-0.48	0.22	0.03*

* $p < .05$; ** $p < .001$

Table 4. Standardized (β) and unstandardized (B) regression weights and Standard Error (SE) for APIM examining associations of performance-based emotion self-awareness (CEAS) with received support (BSSS-R), provided support (BSSS-P), received support satisfaction (BSSS-R Sat), expected positive support (SSII-E Pos), expected negative support (SSII-E Neg), and expected emotional support (SSII-E E)

	β	B	SE	p
Female CEAS to Female BSSS-R	-0.32	-0.34	0.12	0.01*
Female CEAS to Male BSSS-R	-0.22	-0.19	0.11	0.07
Male CEAS to Male BSSS-R	0.04	0.03	0.11	0.76
Male CEAS to Female BSSS-R	0.24	0.26	0.13	0.04*
Female CEAS to Female BSSS-P	0.03	0.03	0.08	0.74
Female CEAS to Male BSSS-P	-0.09	-0.07	0.08	0.37
Male CEAS to Male BSSS-P	0.03	0.03	0.08	0.74
Male CEAS to Female BSSS-P	-0.07	-0.07	0.08	0.37
Female CEAS to Female BSSS-R Sat	-0.32	0.00	0.01	0.69
Female CEAS to Male BSSS-R Sat	-0.22	0.00	0.01	0.56
Male CEAS to Male BSSS-R Sat	-0.32	0.00	0.01	0.69
Male CEAS to Female BSSS-R Sat	-0.22	0.00	0.01	0.56
Female CEAS to Female SSII-E Pos	-0.21	-0.60	0.35	0.08
Female CEAS to Male SSII-E Pos	0.00	0.00	0.34	0.10
Male CEAS to Male SSII-E Pos	0.10	0.28	0.35	0.42
Male CEAS to Female SSII-E Pos	0.17	0.51	0.36	0.16
Female CEAS to Female SSII-E Neg	-0.17	-0.24	0.12	0.04*
Female CEAS to Male SSII-E Neg	-0.16	-0.21	0.12	0.07
Male CEAS to Male SSII-E Neg	-0.17	-0.24	0.12	0.04*
Male CEAS to Female SSII-E Neg	-0.15	-0.21	0.12	0.07
Female CEAS to Female SSII-E E		-0.48	0.22	0.03*
Female CEAS to Male SSII-E E		-0.35	0.22	0.19
CEAS Interaction to Female SSII-E E		0.01	0.01	0.03*
CEAS Interaction to Male SSII-E E		0.01	0.01	0.03*
Male CEAS to Male SSII-E E		-0.48	0.22	0.03*
Male CEAS to Female SSII-E E		-0.35	0.22	0.19

* $p < .05$; ** $p < .001$

Appendix A: Telephone Recruitment Script

Return the message from an interested participant:

- Ask to speak to the potential participant

If the participant is not at home:

-Leave a message with your name and say that you are calling from the Department of Psychology at the University of Waterloo regarding a research study. *(To protect the participant's privacy do not leave any additional information.)*

-Ask when you should call back or request that the participant try calling you back.

-Leave the lab phone number: 519-888-4567 ext: 38421

When the participant comes to the phone:

- Introduce yourself by saying: Hi my name is _____. I'm a(n) *undergraduate student/graduate student/research assistant* working for Dr. Uzma Rehman in the Relationship Research Lab from the Department of Psychology at the University of Waterloo. I am calling regarding the research study in which you expressed interest.
- Ask if now is a good time for you to give him/her more information about the study.

If No:

-schedule a time to call back *(note it on the call sheet)*.

-thank the participant.

If Yes:

-Continue below.

Ask how they learned about the study:

- Say: Before we get started, I just wanted to ask, how did you hear about our study?

Explain the purpose of the study and remuneration:

- Conducting a study with heterosexual couples who are:
 - MARRIED OR HAVE BEEN LIVING TOGETHER FOR A MINIMUM OF 12 MONTHS
- Both partners must be able to speak and read English at a grade 8 level.
- Aim of the study: Better understand how characteristics of romantic relationships, for example, emotional understanding and communication, influence relationship satisfaction in couples so that we can better help couples.
- The study a session that would last approximately 2 hours and, in appreciation for participating, each partner would receive \$40 for a total of \$80 per couple.
- Laboratory session would be scheduled soon:
- Both partners have to be present at the same time for the session.

Discuss Confidentiality and Security of Data:

- All the data that we would collect as part of this study will be kept strictly confidential.
- We do not share your responses with your partner, or your partner's with you.
- All of the questionnaires completed will be sealed in an envelope by you and will not contain your name, so although the people entering data into the computer will see your responses, they will not know who you are.
- All data will be identified by a number and not your name.
- If results from this study are published or presented at academic conferences, the findings will only discuss average ratings across couples and no single couple or partner will ever be identified in any way.
- No one but the study investigators and their research assistants will ever have access to your data.

Ask whether they are interested in finding out more about the study:

- Are you interested in learning more about our study?

If No:

-Ask: "Would you be willing to explain the reason why?"

-Try to alleviate concerns about things like confidentiality, parking, babysitting, finding the building, etc.

-If it has to do with an unwillingness to give up so much time or another concern that we cannot address, thank him/her for his/her time and interest in the study and ask if he/she would like to be put on a list to be contacted for future studies

If Yes:

-Continue below

Explain basic study procedure:

- During the session we would gather information about you and your relationship.
- However, please remember that no one will see your responses while you are in the session
- Researchers associated with this study will see your answers later, but they will not know who provided the answers.

Ask whether they want study details in email format: (see page 6 for a copy of this email).

If No:

-Continue Below

If Yes:

-Ask for their email address

-Remember to send the email from the “relation” account after you finish the phone call.

Ask whether they are interested in participating in the study:

- Ask: “Are you interested in participating in our study?”

If No:

-Ask: “Would you be willing to explain the reason why?”

-Try to alleviate concerns about things like confidentiality, babysitting, parking, finding the building, etc.

-If it has to do with an unwillingness to give up so much time or another concern that we cannot address, thank him/her for his/her time and interest in the study and ask if he/she would like to be put on a list to be contacted for future studies.

If Unsure/Needs to Speak to Partner:

-Offer to speak to the other partner to answer any questions or concerns that he/she might have.

-Ask if you can call back in a day or two to see if they are interested.

-If not, make sure they have the lab number and ask them to call back if they are interested.

If Yes:

-Go ahead and schedule the couple for the session:

Ask if the couple is familiar with the UW campus.

Based on their answer, give directions to the lab (see page 6).

Offer to email them a copy of the directions.

Appendix B: Measures

Background Questionnaire

This questionnaire asks you to provide information about your background and your relationship history. We collect this information so that we can understand and describe the overall characteristics of our study participants in publications and academic presentations. Any background information reported in publications or academic presentations is done at the group and not the individual level (e.g., average age of all participants, proportion of participants belonging to each ethnic group, etc.).

Please remember that you do not need to answer any questions that you do not want to answer. Also, please remember that your answers will be kept confidential, and will not be associated with your name.

Part I: Demographics

1. Age: _____ years.

2. Gender: Male Female

3. To which ethnic group do you most closely associate yourself?

- Caucasian
- African descent
- Hispanic
- South Asian
- Other Asian
- First Nation
- Other: _____

4. Are you currently a student?

- No
- Yes, full time
- Yes, part time

5. a) How many years of education have you completed (starting from grade 1)? _____

b) What type of education do you have?

- No high school
- Some high school
- Completed high school
- Some college/university
- Completed college/university
- Some graduate school
- Graduate degree

6. Are you presently employed?

- No, I am unemployed
- No, I am a temporary/seasonal worker
- No, I am unable to work
- No, I am retired
- Yes, full time
- Yes, part time

IF YES, What is your occupation or job? _____

IF NO, What is your current source of income? _____

7. What is *your* gross (before taxes) annual income?

- Less than \$4999
- \$5000 - \$19 999
- \$20 000 - \$39 999
- \$40 000 - \$59 999
- \$60 000 - \$79 999
- \$80 000 - \$99 999
- More than \$100 000

8. What is *your partner's* gross (before taxes) annual income?

- Less than \$4999
- \$5000 - \$19 999
- \$20 000 - \$39 999
- \$40 000 - \$59 999
- \$60 000 - \$79 999
- \$80 000 - \$99 999
- More than \$100 000

9. To what extent is your household currently experiencing financial distress?

- Extremely
- More so than usual
- Same as usual
- Less so than usual
- Not at all

Part II: Relationship History

1. What is the status of your current romantic relationship?

- Married and living together
- Cohabiting (not married but living together)

Married and Living Together (if applicable)

2. How many times have you been married, including this marriage? _____

3. With your current marriage in mind:

How long have you been in this relationship? (Include dating.) _____ yrs _____ months

How long have you been living together? _____ yrs _____ months

How long have you been married? _____ yrs _____ months

Cohabiting (if applicable)

2. Have you ever been married? No Yes

IF YES, How many times? _____

3. With your current relationship in mind:

How long have you been in this relationship? (Include dating.) _____ yrs _____ months

How long have you been living together? _____ yrs _____ months

Part III: Children

1. Please fill out all of the following information for all of the children in your family (Please include your children from your current relationship and biological/adopted children of either you or your current partner from previous relationships)

I have no children.

	Gender	Age (years)	Does this child live with you more than 60% of the time?	Are you the biological parent (B), step-parent (S), or adoptive parent (A) of this child?	Is your partner the biological parent (B), step-parent (S) or adoptive parent (A) of this child?
Child 1	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A
Child 2	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A
Child 3	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A
Child 4	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A
Child 5	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A
Child 6	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A
Child 7	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A
Child 8	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A
Child 9	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A
Child 10	<input type="checkbox"/> M <input type="checkbox"/> F	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> S <input type="checkbox"/> A

QMI

This questionnaire asks about your current dating relationship. Please indicate how much you agree or disagree with each statement using a 7-point scale, where 1 means you very strong disagree, 4 means that you neither agree nor disagree, and 7 means you very strongly agree.

1. We have a good relationship	1	2	3	4	5	6	7
2. My relationship with my partner is very stable	1	2	3	4	5	6	7
3. Our relationship is strong	1	2	3	4	5	6	7
4. My relationship with my partner makes me happy	1	2	3	4	5	6	7
5. I really feel like <i>part of a team</i> with my partner	1	2	3	4	5	6	7

6. Now, I'd like you to think about how happy you are with your relationship. Please think of a 10 point scale, where 1 means very unhappy, 5 means happy, and 10 means perfectly happy. Please indicate the point which best describes the degree of happiness, everything considered, in your relationship.

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 Very Happy Happy Perfectly
 Unhappy Unhappy

TAS-20

For each statement below, please indicate your agreement or disagreement by choosing the appropriate number from the following rating scale:

1	2	3	4	5
strongly disagree	mildly disagree	agree and disagree equally	mildly agree	strongly agree

1. ____ I am often confused about what emotion I am feeling.
2. ____ It is difficult for me to find the right words for my feelings.
3. ____ I have physical sensations that even doctors don't understand.
4. ____ I am able to describe my feelings easily.
5. ____ I prefer to analyze problems rather than just describe them.
6. ____ When I am upset, I don't know if I am sad, frightened, or angry.
7. ____ I am often puzzled by sensations in my body.
8. ____ I prefer to just let things happen rather than to understand why they turned out that way.
9. ____ I have feelings that I can't quite identify.
10. ____ Being in touch with emotions is essential.
11. ____ I find it hard to describe how I feel about people.
12. ____ People tell me to describe my feelings more.
13. ____ I don't know what's going on inside me.
14. ____ I often don't know why I am angry.
15. ____ I prefer talking to people about their daily activities rather than their feelings.
16. ____ I prefer to watch "light" entertainment shows rather than psychological dramas.
17. ____ It is difficult for me to reveal my innermost feelings, even to close friends.
18. ____ I can feel close to someone, even in moments of silence.
19. ____ I find examination of my feelings useful in solving personal problems.
20. ____ Looking for hidden meanings in movies or plays distracts from their enjoyment.

BSSS-R

Thinking about how your partner reacted to you during the **past week**, please rate how much you agree or disagree with the following statements.

1
strongly
disagree

2
somewhat
disagree

3
somewhat
agree

4
strongly
agree

- ___ 1. My partner showed me that he/she loves and accepts me.
- ___ 2. My partner was there when I needed him/her.
- ___ 3. My partner comforted me when I was feeling bad.
- ___ 4. My partner left me alone.
- ___ 5. My partner did not show much empathy for my situation.
- ___ 6. My partner complained about me.
- ___ 7. My partner took care of many things for me.
- ___ 8. My partner made me feel valued and important.
- ___ 9. My partner expressed concern about my condition.
- ___ 10. My partner assured me that I can rely completely on him/her.
- ___ 11. My partner helped me find something positive in my situation.
- ___ 12. My partner suggested activities that might distract me.
- ___ 13. My partner encouraged me not to give up.
- ___ 14. My partner took care of things I could not manage on my own.
- ___ 15. In general, I am very satisfied with the way my partner behaved.

BSSS-P

Thinking about how you interacted with your partner during the **past week**, please rate how much you agree or disagree with the following statements.

1
strongly
disagree

2
somewhat
disagree

3
somewhat
agree

4
strongly
agree

- ___ 1. I showed her how much I cherish and accept her.
- ___ 2. I was there when she needed me.
- ___ 3. I comforted her when she was feeling bad.
- ___ 4. I left her alone.
- ___ 5. I did not have much empathy for her.
- ___ 6. I criticized her.
- ___ 7. I did a lot for her.
- ___ 8. I made her feel valued and important.
- ___ 9. I expressed my concern about her condition.
- ___ 10. I reassured her that she can rely completely on me.
- ___ 11. I helped her find something positive in her situation.
- ___ 12. I suggested an activity that might distract her.
- ___ 13. I encouraged her not to give up.
- ___ 14. I took care of daily duties that she could not fulfil on her own.

CEAS

Directions

In this next part of the study I'm going to ask you some questions and, with your permission, audio-record your responses. I will describe 12 situations commonly experienced by couples, for example one partner spending too much time with others. After I have described the situation I will ask you to describe what you would feel in the situation. It is important that you use the word "feel" in your answers. You may make your answers as brief or as long as necessary to express how you would feel. In each situation your partner is mentioned. Please indicate how you think your partner would feel as well. If, for any reason, you do not want to answer a question, please let me know. You do not have to answer any question that you do not wish to. Do you have any questions?

Situations

1. Your partner complains that you are spending too much time with your closest friend. How would you feel? Would you feel anything else? How would your partner feel?
2. Your aunt from out-of-town drops in unexpectedly. Neither you nor your partner get along with your aunt, and your partner frequently argues with her. Your partner decides to leave you and your aunt alone and go out with friends. How would you feel? Would you feel anything else? How would your partner feel?
3. Your partner agreed to pick you up from an evening activity but he/she is late and you have to wait outside. As you are standing outside waiting... How would you feel? Would you feel anything else? How would your partner feel?
4. In the past, when you have gone to parties with your partner and his/her coworkers, they have usually talked about things that you aren't interested in and you have been bored. Now there is a party coming up this weekend and your partner wants you to go. How would you feel? Would you feel anything else? How would your partner feel?
5. You have been working hard all week and you finally have a night off to unwind with your partner. But when you tell your partner, he/she tells you that he/she can't spend time with you that evening because he/she already has plans with his/her friends. How would you feel? Would you feel anything else? How would your partner feel?
6. You and your partner are struggling financially. Your partner is having troubles getting along with his/her boss. After being late to work one day, the boss fires him/her. How would you feel? Would you feel anything else? How would your partner feel?
7. You've had a long, exhausting day and you tell your partner that you need some time alone to unwind. Your partner says he/she would really like to talk to you about his/her day. How would you feel? Would you feel anything else? How would your partner feel?

8. One night, as you and your partner are going to bed, a friend of your partner's calls and says that he/she (use respondent's sex) needs your partner right away for emotional support about a personal crisis. Your partner leaves to visit his/her friend. How would you feel? Would you feel anything else? How would your partner feel?

9. One afternoon, your partner comes home from work and you are on the phone with a male/female (use partner's sex) friend. Later your partner tells you that he/she is upset and worried that you are attracted to your friend. How would you feel? Would you feel anything else? How would your partner feel?

10. Your partner comments that your relationship is not as exciting as it was when you first met. How would you feel? Would you feel anything else? How would your partner feel?

11. One evening, you have several important things you need to work on, but your partner keeps interrupting you. He/she explains that he/she wants to spend extra time with you this evening. How would you feel? Would you feel anything else? How would your partner feel?

12. Your partner's boss asks him/her to go to Hawaii to take care of some business, all expenses paid. However, the company won't pay for you to go as well, so your partner decides to go alone. How would you feel? Would you feel anything else? How would your partner feel?

SSII-E

Please try to imagine the discussion you are about to have with your partner about your personal problem. Please indicate how likely it is that your partner will engage in each of the behaviours listed using the following scale:

1	2	3	4	5
Very Unlikely	Somewhat Unlikely		Somewhat Likely	Very Likely

- _____ My partner will help or encourage me to express or clarify my feelings about the problem.
- _____ My partner will express doubt about my chances of improving or changing the situation.
- _____ My partner will ignore the significance of the problem or deny that there is a problem.
- _____ My partner will pay attention to me during the discussion.
- _____ My partner will help me figure out what he could do that would/would not be helpful.
- _____ My partner will ask me what would be most helpful for him to do to assist me.
- _____ My partner will express commitment to helping me in general.
- _____ My partner will insist that I follow his advice to solve the problem.
- _____ My partner will give useless advice for solving the problem.
- _____ My partner will express his own feelings about the problem.
- _____ My partner will use humour or help me see the humour in the situation.
- _____ My partner will express affection or show me that he loves and cares for me.
- _____ My partner will show me that he values me as a person.
- _____ My partner will tell me what to do to solve the problem.
- _____ My partner will provide genuine, appropriate encouragement.
- _____ My partner will share his opinion about the problem without thinking about my feelings.
- _____ My partner will share his own experience with problems to help me in solving mine.
- _____ My partner will offer a specific and clear analysis of problem.
- _____ My partner will try to help me feel better about myself.
- _____ My partner will agree with or understand my beliefs or interpretations about the problem.
- _____ My partner will encourage me to keep talking.
- _____ My partner will offer helpful feedback about the problem or my approach to handling it.
- _____ My partner will suggest a specific plan of action for solving the problem.
- _____ My partner will make positive comments about my handling of the problem.
- _____ My partner will help me look at the problem in a new or different way.

- _____ My partner will express negative emotions (i.e., anger, contempt, whining, etc).
- _____ My partner will blame me for the problem.
- _____ My partner will gently suggest a new way of handling the problem.
- _____ My partner will comment on the value or strength of our relationship.
- _____ My partner will ask me specific questions about next steps to take in solving the problem.
- _____ My partner will offer to help me in some specific way that could help solve the problem.
- _____ My partner will express boredom or lack of interest in helping me solve the problem.
- _____ My partner will express concern about me.
- _____ My partner will suggest ways I could manage my feelings about the problem.
- _____ My partner will suggest the importance of developing a plan for solving the problem.
- _____ My partner will tell me he understands my concerns or difficulties.
- _____ My partner will be sarcastic or try to humiliate me.
- _____ My partner will acknowledge the appropriateness of my feelings.
- _____ My partner will help me define the problem.
- _____ My partner will be accepting of my difficulties or shortcomings.
- _____ My partner will accuse me of wrongdoing in my attempts to solve the problem.
- _____ My partner will summarize what we discuss about the problem in a helpful way.
- _____ My partner will withdraw from the discussion or will not participate in the discussion.
- _____ My partner will point out positive aspects of the situation.
- _____ My partner will ask insulting or inappropriate questions about the problem.
- _____ My partner will use a negative tone of voice when discussing the problem with me.
- _____ My partner will reassure or console me.
- _____ My partner will bring us back to the discussion if we go off-task.
- _____ My partner will criticize me or my approach to solving the problem.
- _____ My partner will talk about himself and his own problems.
- _____ My partner will help me be optimistic about the problem.
- _____ My partner will ask me specific questions to help me narrow down the problem.
- _____ My partner will demonstrate willingness to help me prepare a plan for solving the problem.
- _____ My partner will ask questions that will show he is interested and willing to help me.